

# **Math Overview**

These math lessons have been designed to support the development of math vocabulary, practice math facts, and work through operations with games and other activities. Children in Kindergarten focus on counting, patterns, and understanding basic math concepts. The subsequent grades build upon these activities and engage children in practicing the operations: addition subtraction, multiplication, and division, as well as concepts such as mean, mode, average, great than, less than, expanded notation word problems, geometry, fractions, decimals, and percentages, and other grade level appropriate math concepts.

The games rely on die, dominoes, and decks of cards to be random number generators, and still provide a great deal of practice with the operations. These games, once taught, can be used during math practice but also as engaging activities for youth to do when homework is completed.

Each lesson begins with an objective and ends with a debrief to ensure the learning is "sticky". For the vocabulary section you are encouraged to create Vocabulary Journals or cut a composition book in half. The vocabulary work implements well-researched methods for making vocabulary real to youth



Component	Math	
Grade Level:	Kindergarten-1st Grade	
Lesson Title: Count Down		
Focus:	Learning Each Math Lesson Segment	

#### Materials:

Deck of cards with face cards and jokers removed. Share with children that the "Ace" counts as 1.

White boards or paper and pencil

# **Opening**

# State the objective

Today we are going to practice the different aspects of the math lesson plan.

# Gain prior knowledge by asking students the following questions

What are some of the games that you know how to play?

What are some of the math vocabulary words that you know?

What do you think is meant by "Problem of the Day"?

# Content (the "Meat")

## Problem of the Day

In this segment you will have a problem to work through with the students. You will want to draw a picture of the problem so they can see that the words are connected to the numbers which represent the story.

You have 4 squares and 3 triangles. How many shapes do you have altogether?

#### Math Facts

The Fact Practice activity will be the same every day for 1st graders and Kindergartners. You may use dice, dominoes, cards, white board, or other items to practice the math facts that are appropriate for the grade level students are in.

#### **Fact Practice**

#### Kindergarten--Counting

During the month you will work with Kindergartners to reinforce the number sense of corresponding the numbers said with an actual number of objects. To help them do that you will create number book. After working with the Kindergartners, if they can verbally count from 11-20, then make the book that counts from 11-20. If they struggle counting to 20, help them to learn those numbers by helping them with this book. You can always do more than one page of and single number if you need more time to reinforce counting.

For the next 10 days work together to create a page together so the Kindergartners will understand how to do this on their own. Use dice or cards to determine the number you will be making out of object. Create large pages out of butcher paper.

First Grade—Fact Families (They will have different fact families each day)

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask open-ended questions to determine what the rest of the group is thinking. When possible, engage students in a "teach to learn" opportunity and have the student become

the teacher.



Fact Practice for 1<sup>st</sup> grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 2, 8 and 10. Have students write the entire Fact Family on the white board.

2 + 8 = 10

8 + 2 = 10

10 - 2 = 8

10 - 8 = 2

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 2, 8 and 10.

# Math Vocabulary

Each lesson will also have a vocabulary word that is appropriate for the grade level. The word may be reviewed more than one time. Youth need to complete the vocabulary entry in an Academic Vocabulary Notebook. The Vocabulary section will follow this pattern. We will practice working on this for the next 11 days.

# Word for Today: hexagon

**Description**: A 6-sided flat shape.

Complete the journal entry in your Vocabulary Notebook. In space 1, write the word. In space 2, explain the word in your own words. In space 3 use the word in a sentence. In space 4 demonstrate your understanding of the word by drawing a picture of the word.

# Vocabulary Notebook Sample:

New Word	My Description
hexagon	A flat shape that has 6 sides and 6 angles
Personal Connection	Drawing
What is shaped like a hexagon?	

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary

notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

It is important to review academic math vocabulary often throughout the day.



## Math Activity

Each day students will have the opportunity to play different games to practice the skills that they need to work on. For the next several days you will want to help children practice different games. Here is how to introduce games to them and then an opportunity for them to practice different games and activities.

#### **Student Practice**

#### Step 1: Basic Information

- Tell the students the name of the game.
- Tell them the skill that they will be practicing.
- Tell them the materials they will need to play the game.
- Tell them how many people may play the game at one time.
- Tell them if the game is cooperative (all students working together to defeat the game) or competitive (each student hopes to defeat the other players).
- Tell them how they will know that the game is over.
- Remind them of how to choose who will be first.
- Remind them at the end of the game that they will need to do to clean-up.

#### Step 2: Demonstration

- Talk the students through the game.
- Give the rules (it is best if they can see these).
- Give a demonstration or a "for example"
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

#### Step 3: Model

- Ask for 2-3 student volunteers to play a "teaching game" so the remainder of the class can see the game played from beginning to end.
- Ask other students to make a circle around the volunteers so they can see how the game is played.
- Go through the game step by step having the volunteers actually make the plays.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- After playing the game for several minutes, praise the first volunteers and ask for 2-3 more.
- Replay the game with the new volunteers, providing less direction but being very responsive if the players are stuck or playing the game incorrectly.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

#### Step 4: Open Play

- Divide students into small groups (you might want to put a "volunteer" who played the game in each of these small groups)
- Have the students play a practice game (no winners or losers) **Note:** If you are playing with cards you might want to have the students display their hand of cards during Open Play.
- Check for understanding by asking students to tell another student "how" to play the game from what they experienced.



**Note**: This is the last "practice" for the game. The majority of students will have a full understanding of the game by this point. There will be only minor tweaks and adjustments that need to be made.

#### Step 5: Play

- Have students play the game.'
- Circulate and answer questions as needed.
- Debrief the game at the end asking students:
  - o What skill did you practice?
  - o What did you learn?
  - o What about the game was enjoyable? What makes you say that?
  - o How would you have taught the game differently?

# Game for the Day

#### Count Down!

**Materials:** Deck of Cards (remove face cards and jokers)

Players: 2-4

**Purpose of the game:** Practice counting backwards from 10 to ensure the student understands the relationship between numbers, one greater, one less, etc. To win, the cards will be in four stacks with 10 on the bottom and the ace or 1 on the top.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

#### Directions:

- 1. Shuffle the cards.
- 2. Make a 3 x 3 grid of cards, face up. (A grid that has 3 columns and 3 rows),
- 3. Place the remainder of the cards to the right of the grid.
- 4. Player one looks at the cards and stacks cards in backwards order, putting the smaller card on top of the larger number.
- 5. Player continues to stack until there are no more additional moves.
- 6. If player creates an entire stack 10-1, then he/she turns the stack upside down to show that it is no longer in play.
- 7. When Player 1 finished his/her turn, Player 2 places cards from the remaining deck to re-create the 3 x 3 grid.
- 8. Play then continues with Player 2 stacking the numbers.
- 9. Player may move a stack to another card. For example a stack of 3-2-1 could be placed on a 4.

Play continues until there are four stacks, 10-1.

# Closing

## Review

# Say:

- Please recap what we did today.
- Did we achieve our objectives?



#### Debrief

# **Three Whats**

Ask the following three what questions:

What was your key learning for the day?

What opportunities might you have to do this same thing in the "real world"?

What advice would you give to a "new" student getting ready to do this activity?

# Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component	Math	
Grade Level:	Kindergarten-1st Grade	
Lesson Title: Triangle		
Focus: Learning Each Math Lesson Segment		

#### Materials:

Deck of cards with face cards and jokers removed. Share with children that the "Ace" counts as 1.

White boards or paper and pencil

# Opening

# State the objective

Today we are going to practice the different aspects of the math lesson plan.

# Gain prior knowledge by asking students the following questions

What are some of the games that you know how to play?

What are some of the math vocabulary words that you know?

What do you think is meant by "Problem of the Day"?

# Content (the "Meat")

## Problem of the Day

In this segment you will have a problem to work through with the students. You will want to draw a picture of the problem so they can see that the words are connected to the numbers which represent the story.

You have 10 pennies and you are given 3 more. How many pennies do you have?

#### Math Facts

The Fact Practice activity will be the same every day for 1st graders and Kindergartners. You may use dice, dominoes, cards, white board, or other items to practice the math facts that are appropriate for the grade level students are in.

#### **Fact Practice**

#### Kindergarten--Counting

During the month you will work with Kindergartners to reinforce the number sense of corresponding the numbers said with an actual number of objects. To help them do that you will create number book. After working with the Kindergartners, if they can verbally count from 11-20, then make the book that counts from 11-20. If they struggle counting to 20, help them to learn those numbers by helping them with this book. You can always do more than one page of and single number if you need more time to reinforce counting.

For the next 10 days work together to create a page together so the Kindergartners will understand how to do this on their own. Use dice or cards to determine the number you will be making out of object. Create large pages out of butcher paper.

First Grade—Fact Families (They will have different fact families each day)

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During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

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the teacher.



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1 + 2 = 3

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3 - 2 = 1

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After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

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2 + 8 = 10

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Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 2, 8 and 10.

# Math Vocabulary

Each lesson will also have a vocabulary word that is appropriate for the grade level. The word may be reviewed more than one time. Youth need to complete the vocabulary entry in an Academic Vocabulary Notebook. The Vocabulary section will follow this pattern. We will practice working on this for the next 11 days.

# Word for Today: triangle

**Description:** A 3-sided shape.

Complete the journal entry in your Vocabulary Notebook. In space 1, write the word. In space 2, explain the word in your own words. In space 3 use the word in a sentence. In space 4 demonstrate your understanding of the word by drawing a picture of the word.

# Vocabulary Notebook Sample:

New Word	My Description
triangle	A flat shape with 3 sides and 3 angles
Personal Connection	Drawing
What is shaped like a triangle?	

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

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## Math Activity

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#### **Student Practice**

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- Tell them how they will know that the game is over.
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- Talk the students through the game.
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- After playing the game for several minutes, praise the first volunteers and ask for 2-3 more.
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- Divide students into small groups (you might want to put a "volunteer" who played the game in each of these small groups)
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**Note**: This is the last "practice" for the game. The majority of students will have a full understanding of the game by this point. There will be only minor tweaks and adjustments that need to be made.

#### Step 5: Play

- Have students play the game.'
- Circulate and answer questions as needed.
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# Game for the Day

#### Count Down!

**Materials:** Deck of Cards (remove face cards and jokers)

Players: 2-4

**Purpose of the game:** Practice counting backwards from 10 to ensure the student understands the relationship between numbers, one greater, one less, etc. To win, the cards will be in four stacks with 10 on the bottom and the ace or 1 on the top.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

#### Directions:

- 1. Shuffle the cards.
- 2. Make a 3 x 3 grid of cards, face up. (A grid that has 3 columns and 3 rows),
- 3. Place the remainder of the cards to the right of the grid.
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- 5. Player continues to stack until there are no more additional moves.
- 6. If player creates an entire stack 10-1, then he/she turns the stack upside down to show that it is no longer in play.
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- 8. Play then continues with Player 2 stacking the numbers.
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Play continues until there are four stacks, 10-1.

# Closing

# Review

# Say:

- Please recap what we did today.
- Did we achieve our objectives?



#### Debrief

# **Three Whats**

Ask the following three what questions:

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What opportunities might you have to do this same thing in the "real world"?

What advice would you give to a "new" student getting ready to do this activity?

# Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
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- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component	Math
Grade Level:	Kindergarten-1st Grade
Lesson Title: One More	
Focus: Learning Each Math Lesson Segment	

#### Materials:

Deck of cards with face cards and jokers removed. Share with children that the "Ace" counts as 1.

White boards or paper and pencil

# **Opening**

# State the objective

Today we are going to practice the different aspects of the math lesson plan.

# Gain prior knowledge by asking students the following questions

What are some of the games that you know how to play?

What are some of the math vocabulary words that you know?

What do you think is meant by "Problem of the Day"?

# Content (the "Meat")

## Problem of the Day

In this segment you will have a problem to work through with the students. You will want to draw a picture of the problem so they can see that the words are connected to the numbers which represent the story.

John has 8 pencils. Jill has 3 pencils. Jorge has 5 pencils. How many do they have altogether?

#### Math Facts

The Fact Practice activity will be the same every day for 1st graders and Kindergartners. You may use dice, dominoes, cards, white board, or other items to practice the math facts that are appropriate for the grade level students are in.

#### **Fact Practice**

# Kindergarten--Counting

During the month you will work with Kindergartners to reinforce the number sense of corresponding the numbers said with an actual number of objects. To help them do that you will create number book. After working with the Kindergartners, if they can verbally count from 11-20, then make the book that counts from 11-20. If they struggle counting to 20, help them to learn those numbers by helping them with this book. You can always do more than one page of and single number if you need more time to reinforce counting.

For the next 10 days work together to create a page together so the Kindergartners will understand how to do this on their own. Use dice or cards to determine the number you will be making out of object. Create large pages out of butcher paper.

# \*Activity >> Teachable Moment(s) throughout

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments. Stop the class and focus

on a student's key learning or understanding. Ask open-ended questions to determine what the rest of the group is thinking. When possible, engage students in a "teach to

learn" opportunity and have the student become the teacher.



# First Grade—Fact Families (They will have different fact families each day)

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)

They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
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After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 2, 8 and 10. Have students write the entire Fact Family on the white board.

- 2 + 8 = 10
- 8 + 2 = 10
- 10 2 = 8
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Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 2, 8 and 10.

#### Math Vocabulary

Each lesson will also have a vocabulary word that is appropriate for the grade level. The word may be reviewed more than one time. Youth need to complete the vocabulary entry in an Academic Vocabulary Notebook. The Vocabulary section will follow this pattern. We will practice working on this for the next 11 days.

# Word for Today: counting number

**Description:** A number that you can use to count things. It does not include 0 since 0 means nothing.

Complete the journal entry in your Vocabulary Notebook. In space 1, write the word. In space 2, explain the word in your own words. In space 3 use the word in a sentence. In space 4 demonstrate your understanding of the word by drawing a picture of the word.

Vocabulary Notebook Sample:

New Word	My Description
Counting numb	er Numbers used to count things like 1, 2, 3, 4, and 5
Personal Connection	Drawing

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation). Vocabulary Notebooks can be made from ½ of a composition book. It is important to review academic math vocabulary often throughout the day.



In counting numbers, I am 6 years old.

1, 2, 3, 4, 5

# Math Activity

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#### Step 2: Demonstration

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#### Step 4: Open Play

- Divide students into small groups (you might want to put a "volunteer" who played the game in each of these small groups)
- Have the students play a practice game (no winners or losers) **Note**: If you are playing with cards you might want to have the students display their hand of cards during Open Play.
- Check for understanding by asking students to tell another student "how" to play the game from what they experienced.

**Note**: This is the last "practice" for the game. The majority of students will have a full understanding of the game by this point. There will be only minor tweaks and adjustments that need to be made.

## Step 5: Play

- Have students play the game.'
- Circulate and answer questions as needed.
- Debrief the game at the end asking students:
  - o What skill did you practice?
  - o What did you learn?
  - o What about the game was enjoyable? What makes you say that?
  - o How would you have taught the game differently?

# Game for the Day

#### One More

**Materials:** Deck of Cards (remove face cards and jokers)

Players: 2-4

**Purpose of the game:** Practice recognizing the numbers between 1 and 10 and the number

that is 1 more. **Note**: 10 can only be an answer card.

#### **Directions:**

- 1. Shuffle the cards.
- 2. Deal 5 cards to each player.
- 3. Player 1 asks Player 2 (3 or 4) for a card that is a number 1 more than his or her card. For example, if the player wants to play his/her 2, he/she would ask for a 3.
- 4. If Player 2 has the card asked for, he/she gives it to Player 1. Player 1 then lays down his/her card and says, "\_\_\_\_ (the card asked for) is one more than \_\_\_\_ (the card Player 1 started with." Example: "3 is one more than 2."
- 5. If Player 2 does not have the card asked for, he/she says, "Draw A Card", and Player 1 draws a card and adds to his/her hand.
- 6. Player 2 then repeats the procedure.
- 7. Game is over when all cards are matched or time is called.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



	Closing
	Review
Say:	
•	Please recap what we did today. Did we achieve our objectives?

#### Debrief

# **Three Whats**

Ask the following three what questions:

What was your key learning for the day?

What opportunities might you have to do this same thing in the "real world"?

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- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component	Math	
Grade Level:	Kindergarten-1st Grade	
Lesson Title: Pattern		
Focus: Learning Each Math Lesson Segment		

#### Materials:

Deck of cards with face cards and jokers removed. Share with children that the "Ace" counts as 1.

White boards or paper and pencil

# Opening

# State the objective

Today we are going to practice the different aspects of the math lesson plan.

# Gain prior knowledge by asking students the following questions

What are some of the games that you know how to play?

What are some of the math vocabulary words that you know?

What do you think is meant by "Problem of the Day"?

# Content (the "Meat")

## Problem of the Day

In this segment you will have a problem to work through with the students. You will want to draw a picture of the problem so they can see that the words are connected to the numbers which represent the story.

How many pennies are in a nickel? If you have that many pennies and 3 more, how many pennies do you have altogether?

#### Math Facts

The Fact Practice activity will be the same every day for 1st graders and Kindergartners. You may use dice, dominoes, cards, white board, or other items to practice the math facts that are appropriate for the grade level students are in.

#### **Fact Practice**

## Kindergarten--Counting

During the month you will work with Kindergartners to reinforce the number sense of corresponding the numbers said with an actual number of objects. To help them do that you will create number book. After working with the Kindergartners, if they can verbally count from 11-20, then make the book that counts from 11-20. If they struggle counting to 20, help them to learn those numbers by helping them with this book. You can always do more than one page of and single number if you need more time to reinforce counting.

For the next 10 days work together to create a page together so the Kindergartners will understand how to do this on their own. Use dice or cards to determine the number you will be making out of object. Create large pages out of butcher paper.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask open-ended questions to determine what the rest of the group is thinking. When possible, engage students in a "teach to learn" opportunity and

have the student become

the teacher.



# First Grade—Fact Families (They will have different fact families each day)

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 2, 8 and 10. Have students write the entire Fact Family on the white board.

- 2 + 8 = 10
- 8 + 2 = 10
- 10 2 = 8
- 10 8 = 2

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 2, 8 and 10.

#### Math Vocabulary

Each lesson will also have a vocabulary word that is appropriate for the grade level. The word may be reviewed more than one time. Youth need to complete the vocabulary entry in an Academic Vocabulary Notebook. The Vocabulary section will follow this pattern. We will practice working on this for the next 11 days.

# Word for Today: pattern

**Description:** A group that is organized in such a way that you know what comes next. Complete the journal entry in your Vocabulary Notebook. In space 1, write the word. In space 2, explain the word in your own words. In space 3 use the word in a sentence. In space 4 demonstrate your understanding of the word by drawing a picture of the word.

Vocabulary Notebook Sample:

New Word	My Description
pattern	An order of different shapes or number sequences
Personal Connection	Drawing

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation). Vocabulary Notebooks can be made from ½ of a composition book. It is important to review

academic math vocabulary often throughout the day.



What is the pattern on the wallpaper?

# Math Activity

Each day students will have the opportunity to play different games to practice the skills that they need to work on. For the next several days you will want to help children practice different games. Here is how to introduce games to them and then an opportunity for them to practice different games and activities.

#### **Student Practice**

### Step 1: Basic Information

- Tell the students the name of the game.
- Tell them the skill that they will be practicing.
- Tell them the materials they will need to play the game.
- Tell them how many people may play the game at one time.
- Tell them if the game is cooperative (all students working together to defeat the game) or competitive (each student hopes to defeat the other players).
- Tell them how they will know that the game is over.
- Remind them of how to choose who will be first.
- Remind them at the end of the game that they will need to do to clean-up.

#### Step 2: Demonstration

- Talk the students through the game.
- Give the rules (it is best if they can see these).
- Give a demonstration or a "for example"
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

#### Step 3: Model

- Ask for 2-3 student volunteers to play a "teaching game" so the remainder of the class can see the game played from beginning to end.
- Ask other students to make a circle around the volunteers so they can see how the game is played.
- Go through the game step by step having the volunteers actually make the plays.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- After playing the game for several minutes, praise the first volunteers and ask for 2-3 more.
- Replay the game with the new volunteers, providing less direction but being very responsive if the players are stuck or playing the game incorrectly.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.



#### Step 4: Open Play

- Divide students into small groups (you might want to put a "volunteer" who played the game in each of these small groups)
- Have the students play a practice game (no winners or losers) **Note:** If you are playing with cards you might want to have the students display their hand of cards during Open Play.
- Check for understanding by asking students to tell another student "how" to play the game from what they experienced.

**Note**: This is the last "practice" for the game. The majority of students will have a full understanding of the game by this point. There will be only minor tweaks and adjustments that need to be made.

## Step 5: Play

- Have students play the game."
- Circulate and answer questions as needed.
- Debrief the game at the end asking students:
  - o What skill did you practice?
  - o What did you learn?
  - o What about the game was enjoyable? What makes you say that?
  - o How would you have taught the game differently?

# Game for the Day

#### One More

**Materials:** Deck of Cards (remove face cards and jokers)

Players: 2-4

Purpose of the game: Practice recognizing the numbers between 1 and 10 and the number

that is 1 more. **Note**: 10 can only be an answer card.

### **Directions:**

- 1. Shuffle the cards.
- 2. Deal 5 cards to each player.
- 3. Player 1 asks Player 2 (3 or 4) for a card that is a number 1 more than his or her card. For example, if the player wants to play his/her 2, he/she would ask for a 3.
- 4. If Player 2 has the card asked for, he/she gives it to Player 1. Player 1 then lays down his/her card and says, "\_\_\_\_ (the card asked for) is one more than \_\_\_\_ (the card Player 1 started with." Example: "3 is one more than 2."
- 5. If Player 2 does not have the card asked for, he/she says, "Draw A Card", and Player 1 draws a card and adds to his/her hand.
- 6. Player 2 then repeats the procedure.
- 7. Game is over when all cards are matched or time is called.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



	Closing
	Review
Say:	
•	Please recap what we did today. Did we achieve our objectives?

#### Debrief

# **Three Whats**

Ask the following three what questions:

What was your key learning for the day?

What opportunities might you have to do this same thing in the "real world"?

What advice would you give to a "new" student getting ready to do this activity?

# Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component	Math	
Grade Level:	Kindergarten-1st Grade	
Lesson Title: Memory Match		
Focus: Learning Each Math Lesson Segment		

#### Materials:

Deck of cards with face cards and jokers removed. Share with children that the "Ace" counts as 1. One deck for every two children.

White boards or paper and pencil

#### **Opening**

# State the objective

Today we are going to practice the different aspects of the math lesson plan.

## Gain prior knowledge by asking students the following questions

What are some of the games that you know how to play?

What are some of the math vocabulary words that you know?

What do you think is meant by "Problem of the Day"?

## Content (the "Meat")

#### Problem of the Day

In this segment you will have a problem to work through with the students. You will want to draw a picture of the problem so they can see that the words are connected to the numbers which represent the story.

# What is a pattern that you could make with 8 circles and 4 triangles?

#### Math Facts

The Fact Practice activity will be the same every day for 1st graders and Kindergartners. You may use dice, dominoes, cards, white board, or other items to practice the math facts that are appropriate for the grade level students are in.

#### **Fact Practice**

# Kindergarten--Counting

During the month you will work with Kindergartners to reinforce the number sense of corresponding the numbers said with an actual number of objects. To help them do that you will create number book. After working with the Kindergartners, if they can verbally count from 11-20, then make the book that counts from 11-20. If they struggle counting to 20, help them to learn those numbers by helping them with this book. You can always do more than one page of and single number if you need more time to reinforce counting.

For the next 10 days work together to create a page together so the Kindergartners will understand how to do this on their own. Use dice or cards to determine the number you will be making out of object. Create large pages out of butcher paper.

#### First Grade—Fact Families (They will have different fact families each day)

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day.

Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 2, 8 and 10. Have students write the entire Fact Family on the white board.

- 2 + 8 = 10
- 8 + 2 = 10
- 10 2 = 8
- 10 8 = 2

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 2, 8 and 10.

# Math Vocabulary

Each lesson will also have a vocabulary word that is appropriate for the grade level. The word may be reviewed more than one time. Youth need to complete the vocabulary entry in an Academic Vocabulary Notebook. The Vocabulary section will follow this pattern. We will practice working on this for the next 11 days.

Word for Today: circle

**Description:** A shape that is flat and is a continuous curve until it joins itself. Complete the journal entry in your Vocabulary Notebook. In space 1, write the word. In space 2, explain the word in your own words. In space 3 use the word in a sentence. In space 4 demonstrate your understanding of the word by drawing a picture of the word.

Vocabulary Notebook Sample

New Word	My Description
circle	A flat, round object, made from one continuous line
Personal Connection	Drawing
I have a clock shaped like a circle in my room.	

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).



#### Math Activity

Each day students will have the opportunity to play different games to practice the skills that they need to work on. For the next several days you will want to help children practice different games. Here is how to introduce games to them and then an opportunity for them to practice different games and activities.

#### **Student Practice**

# Step 1: Basic Information

- Tell the students the name of the game.
- Tell them the skill that they will be practicing.
- Tell them the materials they will need to play the game.
- Tell them how many people may play the game at one time.
- Tell them if the game is cooperative (all students working together to defeat the game) or competitive (each student hopes to defeat the other players).
- Tell them how they will know that the game is over.
- Remind them of how to choose who will be first.
- Remind them at the end of the game that they will need to do to clean-up.

#### Step 2: Demonstration

- Talk the students through the game.
- Give the rules (it is best if they can see these).
- Give a demonstration or a "for example"
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

#### Step 3: Model

- Ask for 2-3 student volunteers to play a "teaching game" so the remainder of the class can see the game played from beginning to end.
- Ask other students to make a circle around the volunteers so they can see how the game is played.
- Go through the game step by step having the volunteers actually make the plays.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- After playing the game for several minutes, praise the first volunteers and ask for 2-3 more.
- Replay the game with the new volunteers, providing less direction but being very responsive if the players are stuck or playing the game incorrectly.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

### Step 4: Open Play

- Divide students into small groups (you might want to put a "volunteer" who played the game in each of these small groups)



- Have the students play a practice game (no winners or losers) Note: If you are
  playing with cards you might want to have the students display their hand of cards
  during Open Play.
- Check for understanding by asking students to tell another student "how" to play the game from what they experienced.

**Note:** This is the last "practice" for the game. The majority of students will have a full understanding of the game by this point. There will be only minor tweaks and adjustments that need to be made.

## Step 5: Play

- Have students play the game.'
- Circulate and answer questions as needed.
- Debrief the game at the end asking students:
  - o What skill did you practice?
  - o What did you learn?
  - o What about the game was enjoyable? What makes you say that?
  - o How would you have taught the game differently?

# Game for the Day

Memory Match

**Materials:** Deck of Cards (remove face cards and jokers)

Players: 2

**Purpose of the game:** Practice recognizing the numbers between 1 and 10.

Directions:

- 1. Shuffle the cards.
- 2. Make a 4 x 4 grid, placing cards face down. (4 columns, 4 rows)
- 3. Place the remainder of the cards to the right of the grid.
- 4. Player 1 turns over two cards. If they match (have the same numeric value) then the player takes both of the cards and places them face down by them.
- 5. Player 1 then replaces the 2 cards with ones from the deck.
- 6. If Player 1 matches, then he/she takes a second turn. If Player 1 does not match, he/she turns the cards back over and play continues with Player 2.
- Play continues until all of the cards are matched.
- 8. Winner is the player with the most cards at the end of the game.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



	Closing
	Review
Say:	
•	Please recap what we did today. Did we achieve our objectives?

#### Debrief

#### **Three Whats**

Ask the following three what questions:

What was your key learning for the day?

What opportunities might you have to do this same thing in the "real world"?

What advice would you give to a "new" student getting ready to do this activity?

# Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component	Math
Grade Level:	Kindergarten-1st Grade
Lesson Title:	Square
Focus:	Learning Each Math Lesson Segment

#### Materials:

Deck of cards with face cards and jokers removed. Share with children that the "Ace" counts as 1. One deck for every two children.

White boards or paper and pencil

#### **Opening**

# State the objective

Today we are going to practice the different aspects of the math lesson plan.

## Gain prior knowledge by asking students the following questions

What are some of the games that you know how to play?

What are some of the math vocabulary words that you know?

What do you think is meant by "Problem of the Day"?

## Content (the "Meat")

#### Problem of the Day

In this segment you will have a problem to work through with the students. You will want to draw a picture of the problem so they can see that the words are connected to the numbers which represent the story.

You walk 10 steps and stop. Then you walk 10 more steps. How many steps have you walked altogether?

#### Math Facts

The Fact Practice activity will be the same every day for 1st graders and Kindergartners. You may use dice, dominoes, cards, white board, or other items to practice the math facts that are appropriate for the grade level students are in.

#### **Fact Practice**

## Kindergarten--Counting

During the month you will work with Kindergartners to reinforce the number sense of corresponding the numbers said with an actual number of objects. To help them do that you will create number book. After working with the Kindergartners, if they can verbally count from 11-20, then make the book that counts from 11-20. If they struggle counting to 20, help them to learn those numbers by helping them with this book. You can always do more than one page of and single number if you need more time to reinforce counting.

For the next 10 days work together to create a page together so the Kindergartners will understand how to do this on their own. Use dice or cards to determine the number you will be making out of object. Create large pages out of butcher paper.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



## First Grade—Fact Families (They will have different fact families each day)

Fact Practice for 1<sup>st</sup> grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day.

Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)

They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 2, 8 and 10. Have students write the entire Fact Family on the white board.

- 2 + 8 = 10
- 8 + 2 = 10
- 10 2 = 8
- 10 8 = 2

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 2, 8 and 10.

#### Math Vocabulary

Each lesson will also have a vocabulary word that is appropriate for the grade level. The word may be reviewed more than one time. Youth need to complete the vocabulary entry in an Academic Vocabulary Notebook. The Vocabulary section will follow this pattern. We will practice working on this for the next 11 days.

# Word for Today: square

**Description**: A shape that has four sides that are all equal in length.

Complete the journal entry in your Vocabulary Notebook. In space 1, write the word. In space 2, explain the word in your own words. In space 3 use the word in a sentence. In space 4 demonstrate your understanding of the word by drawing a picture of the word.

Vocabulary Notebook Sample

New Word	My Description	
Square	A four sided figure with all sides equal	
Personal Connection  I have a square clock in my room.	Drawing	

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students



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	acting out an equation).
Math Activity  Each day students will have the opportunity to play different games to practice the skills that they need to work on. For the next several days you will want to help children practice different games. Here is how to introduce games to them and then an opportunity for them to practice different games and activities.	
Student Practice  Step 1: Basic Information  - Tell the students the name of the game.  - Tell them the skill that they will be practicing.  - Tell them the materials they will need to play the game.  - Tell them how many people may play the game at one time.  - Tell them if the game is cooperative (all students working together to defeat the game) or competitive (each student hopes to defeat the other players).  - Tell them how they will know that the game is over.	
<ul> <li>Remind them of how to choose who will be first.</li> <li>Remind them at the end of the game that they will need to do to clean-up.</li> </ul> Step 2: Demonstration <ul> <li>Talk the students through the game.</li> <li>Give the rules (it is best if they can see these).</li> <li>Give a demonstration or a "for example"</li> <li>Check for understanding by asking students to tell another student "how" to play the game from what they observed.</li> </ul>	
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# Step 4: Open Play

- Divide students into small groups (you might want to put a "volunteer" who played the



- game in each of these small groups)
- Have the students play a practice game (no winners or losers) Note: If you are
  playing with cards you might want to have the students display their hand of cards
  during Open Play.
- Check for understanding by asking students to tell another student "how" to play the game from what they experienced.

**Note:** This is the last "practice" for the game. The majority of students will have a full understanding of the game by this point. There will be only minor tweaks and adjustments that need to be made.

## Step 5: Play

- Have students play the game.'
- Circulate and answer questions as needed.
- Debrief the game at the end asking students:
  - o What skill did you practice?
  - o What did you learn?
  - o What about the game was enjoyable? What makes you say that?
  - o How would you have taught the game differently?

# Game for the Day

**Memory Match** 

**Materials:** Deck of Cards (remove face cards and jokers)

Players: 2

**Purpose of the game:** Practice recognizing the numbers between 1 and 10.

Directions:

- 1. Shuffle the cards.
- 2. Make a 4 x 4 grid, placing cards face down. (4 columns, 4 rows)
- 3. Place the remainder of the cards to the right of the grid.
- 4. Player 1 turns over two cards. If they match (have the same numeric value) then the player takes both of the cards and places them face down by them.
- 5. Player 1 then replaces the 2 cards with ones from the deck.
- 6. If Player 1 matches, then he/she takes a second turn. If Player 1 does not match, he/she turns the cards back over and play continues with Player 2.
- 7. Play continues until all of the cards are matched.
- 8. Winner is the player with the most cards at the end of the game.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



	Closing
	Review
Say:	
•	Please recap what we did today. Did we achieve our objectives?

## Debrief

#### **Three Whats**

Ask the following three what questions:

What was your key learning for the day?

What opportunities might you have to do this same thing in the "real world"?

What advice would you give to a "new" student getting ready to do this activity?

# Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component	Math
Grade Level:	Kindergarten-1st Grade
Lesson Title:	Duel
Focus:	Learning Each Math Lesson Segment

#### Materials:

Deck of cards with face cards and jokers removed. Share with children that the "Ace" counts as 1. One deck for every two children.

White boards or paper and pencil

#### **Opening**

# State the objective

Today we are going to practice the different aspects of the math lesson plan.

## Gain prior knowledge by asking students the following questions

What are some of the games that you know how to play?

What are some of the math vocabulary words that you know?

What do you think is meant by "Problem of the Day"?

## Content (the "Meat")

#### Problem of the Day

In this segment you will have a problem to work through with the students. You will want to draw a picture of the problem so they can see that the words are connected to the numbers which represent the story.

#### If you have 5 dimes and you spend 3 of them, how many do you have left?

#### Math Facts

The Fact Practice activity will be the same every day for 1st graders and Kindergartners. You may use dice, dominoes, cards, white board, or other items to practice the math facts that are appropriate for the grade level students are in.

#### **Fact Practice**

# Kindergarten--Counting

During the month you will work with Kindergartners to reinforce the number sense of corresponding the numbers said with an actual number of objects. To help them do that you will create number book. After working with the Kindergartners, if they can verbally count from 11-20, then make the book that counts from 11-20. If they struggle counting to 20, help them to learn those numbers by helping them with this book. You can always do more than one page of and single number if you need more time to reinforce counting.

For the next 10 days work together to create a page together so the Kindergartners will understand how to do this on their own. Use dice or cards to determine the number you will be making out of object. Create large pages out of butcher paper.

# First Grade—Fact Families (They will have different fact families each day)

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day.

Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 2, 8 and 10. Have students write the entire Fact Family on the white board.

2 + 8 = 10

8 + 2 = 10

10 - 2 = 8

10 - 8 = 2

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 2, 8 and 10.

## Math Vocabulary

Each lesson will also have a vocabulary word that is appropriate for the grade level. The word may be reviewed more than one time. Youth need to complete the vocabulary entry in an Academic Vocabulary Notebook. The Vocabulary section will follow this pattern. We will practice working on this for the next 11 days.

# Word for Today: subtraction

**Description:** Reducing a total by a specific amount and then finding the difference between what you started with and what you have after removing some items.

Complete the journal entry in your Vocabulary Notebook. In space 1, write the word. In space 2, explain the word in your own words. In space 3 use the word in a sentence. In space 4 demonstrate your understanding of the word by drawing a picture of the word.

Vocabulary Notebook Sample

New Word	My Description
Subtraction	Reducing a total number and finding the difference
Personal Connection	Drawing
Do you know how to do subtraction problems?	7-3-4

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).



#### Math Activity

Each day students will have the opportunity to play different games to practice the skills that they need to work on. For the next several days you will want to help children practice different games. Here is how to introduce games to them and then an opportunity for them to practice different games and activities.

#### **Student Practice**

## Step 1: Basic Information

- Tell the students the name of the game.
- Tell them the skill that they will be practicing.
- Tell them the materials they will need to play the game.
- Tell them how many people may play the game at one time.
- Tell them if the game is cooperative (all students working together to defeat the game) or competitive (each student hopes to defeat the other players).
- Tell them how they will know that the game is over.
- Remind them of how to choose who will be first.
- Remind them at the end of the game that they will need to do to clean-up.

#### Step 2: Demonstration

- Talk the students through the game.
- Give the rules (it is best if they can see these).
- Give a demonstration or a "for example"
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

## Step 3: Model

- Ask for 2-3 student volunteers to play a "teaching game" so the remainder of the class can see the game played from beginning to end.
- Ask other students to make a circle around the volunteers so they can see how the game is played.
- Go through the game step by step having the volunteers actually make the plays.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- After playing the game for several minutes, praise the first volunteers and ask for 2-3 more.
- Replay the game with the new volunteers, providing less direction but being very responsive if the players are stuck or playing the game incorrectly.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

# Step 4: Open Play

- Divide students into small groups (you might want to put a "volunteer" who played the game in each of these small groups)
- Have the students play a practice game (no winners or losers) **Note**: If you are



playing with cards you might want to have the students display their hand of cards during Open Play.

- Check for understanding by asking students to tell another student "how" to play the game from what they experienced.

**Note:** This is the last "practice" for the game. The majority of students will have a full understanding of the game by this point. There will be only minor tweaks and adjustments that need to be made.

# Step 5: Play

- Have students play the game.'
- Circulate and answer questions as needed.
- Debrief the game at the end asking students:
  - o What skill did you practice?
  - o What did you learn?
  - o What about the game was enjoyable? What makes you say that?
  - o How would you have taught the game differently?

# Game for the Day

Duel

Players: 2

# Directions:

- 1. Shuffle the cards and deal them out.
- 2. Each player puts their cards in a pile facing down.
- 3. Together players flip the top card over and place it in the center.
- 4. The first player to say the names of the numbers on both cards, wins the cards.
- 5. If a player calls an incorrect answer the cards are returned to the bottom of the pile.
- 6. When all cards have been drawn the winner is the player with the most cards.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

# Closing

Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?



#### Debrief

#### **Three Whats**

Ask the following three what questions:

What was your key learning for the day?

What opportunities might you have to do this same thing in the "real world"?

What advice would you give to a "new" student getting ready to do this activity?

# Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component	Math
Grade Level:	Kindergarten-1st Grade
Lesson Title:	Just the Facts
Focus:	Learning Each Math Lesson Segment

#### Materials:

Dominoes (attached)

White boards or paper and pencil

#### Opening

#### State the objective

Today we are going to practice the different aspects of the math lesson plan.

#### Gain prior knowledge by asking students the following questions

What are some of the games that you know how to play?

What are some of the math vocabulary words that you know?

What do you think is meant by "Problem of the Day"?

#### Content (the "Meat")

#### Problem of the Day

In this segment you will have a problem to work through with the students. You will want to draw a picture of the problem so they can see that the words are connected to the numbers which represent the story.

If you have 5 marbles and your friend has 3 marbles, how many do you have altogether?

#### Math Facts

The Fact Practice activity will be the same every day for 1st graders and Kindergartners. You may use dice, dominoes, cards, white board, or other items to practice the math facts that are appropriate for the grade level students are in.

#### **Fact Practice**

#### Kindergarten--Counting

During the month you will work with Kindergartners to reinforce the number sense of corresponding the numbers said with an actual number of objects. To help them do that you will create number book. After working with the Kindergartners, if they can verbally count from 11-20, then make the book that counts from 11-20. If they struggle counting to 20, help them to learn those numbers by helping them with this book. You can always do more than one page of and single number if you need more time to reinforce counting.

For the next 10 days work together to create a page together so the Kindergartners will understand how to do this on their own. Use dice or cards to determine the number you will be making out of object. Create large pages out of butcher paper.

# \*Activity → Teachable Moment(s) throughout

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



#### First Grade—Fact Families (They will have different fact families each day)

Fact Practice for 1<sup>st</sup> grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day.

Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1".

You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 2, 8 and 10. Have students write the entire Fact Family on the white board.

- 2 + 8 = 10
- 8 + 2 = 10
- 10 2 = 8
- 10 8 = 2

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 2, 8 and 10.

#### Math Vocabulary

Each lesson will also have a vocabulary word that is appropriate for the grade level. The word may be reviewed more than one time. Youth need to complete the vocabulary entry in an Academic Vocabulary Notebook. The Vocabulary section will follow this pattern. We will practice working on this for the next 11 days.

#### Word for Today: operations

Complete the journal entry in your Vocabulary Notebook. In space 1, write the word. In space 2, explain the word in your own words. In space 3 use the word in a sentence. In space 4 demonstrate your understanding of the word by drawing a picture of the word.

Vocabulary Notebook Sample:

New Word My Description

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary



operations	There 4 basic operations: addition, subtraction, multiplication and division	notebook for each word. When possible, have students experience the word (Ex. 4
Personal Connection  How many of the operations can you complete?	Drawing	students creating a right angle, multiple students acting out an equation).  Vocabulary Notebooks can be made from ½ of a composition book.
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#### Math Activity

Each day students will have the opportunity to play different games to practice the skills that they need to work on. For the next several days you will want to help children practice different games. Here is how to introduce games to them and then an opportunity for them to practice different games and activities.

#### **Student Practice**

#### Step 1: Basic Information

- Tell the students the name of the game.
- Tell them the skill that they will be practicing.
- Tell them the materials they will need to play the game.
- Tell them how many people may play the game at one time.
- Tell them if the game is cooperative (all students working together to defeat the game) or competitive (each student hopes to defeat the other players).
- Tell them how they will know that the game is over.
- Remind them of how to choose who will be first.
- Remind them at the end of the game that they will need to do to clean-up.

#### Step 2: Demonstration

- Talk the students through the game.
- Give the rules (it is best if they can see these).
- Give a demonstration or a "for example"
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

#### Step 3: Model

- Ask for 2-3 student volunteers to play a "teaching game" so the remainder of the class can see the game played from beginning to end.
- Ask other students to make a circle around the volunteers so they can see how the game is played.
- Go through the game step by step having the volunteers actually make the plays.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- After playing the game for several minutes, praise the first volunteers and ask for 2-3 more.
- Replay the game with the new volunteers, providing less direction but being very responsive if the players are stuck or playing the game incorrectly.



- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

#### Step 4: Open Play

- Divide students into small groups (you might want to put a "volunteer" who played the game in each of these small groups)
- Have the students play a practice game (no winners or losers) Note: If you are
  playing with cards you might want to have the students display their hand of cards
  during Open Play.
- Check for understanding by asking students to tell another student "how" to play the game from what they experienced.

**Note:** This is the last "practice" for the game. The majority of students will have a full understanding of the game by this point. There will be only minor tweaks and adjustments that need to be made.

#### Step 5: Play

- Have students play the game.'
- Circulate and answer questions as needed.
- Debrief the game at the end asking students:
  - o What skill did you practice?
  - o What did you learn?
  - o What about the game was enjoyable? What makes you say that?
  - o How would you have taught the game differently?

#### Game for the Day

Just the Facts Players: 2-3

#### Directions:

- 1. Dominoes are placed in the center of the table, face down.
- 2. After deciding who will go first, Player 1 draws a domino, turns it face up and places it down in front of him/her.
- 3. Kindergarten: Play 1 counts the pips on the dominoes and tells how many are on the domino
  - $1^{st}$  Grade: Player 1 totals the pips on the domino by saying (e.g. 2 + 4 = 6). If the answer is correct, then player keeps the domino and play moves on to player 2.
- 4. If player does not say the correct total or sum, then the domino is returned to the pile
- 5. Play continues until all dominoes are taken.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



	Closing
	Review
Say:	
•	Please recap what we did today. Did we achieve our objectives?

#### Debrief

#### **Three Whats**

Ask the following three what questions:

What was your key learning for the day?

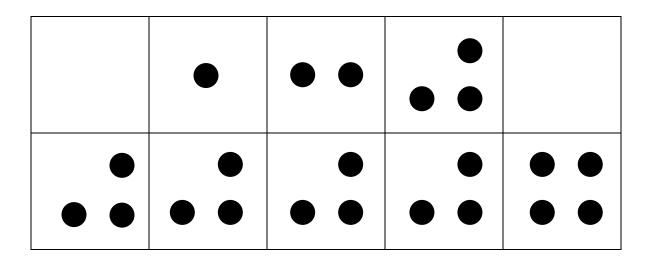
What opportunities might you have to do this same thing in the "real world"?

What advice would you give to a "new" student getting ready to do this activity?

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
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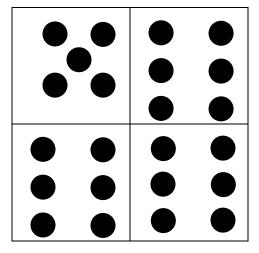


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Component	Math
Grade Level:	Kindergarten-1st Grade
Lesson Title:	Math
Focus:	Learning Each Math Lesson Segment

Materials:

Dominoes (attached)

White boards or paper and pencil

#### **Opening**

#### State the objective

Today we are going to practice the different aspects of the math lesson plan.

#### Gain prior knowledge by asking students the following questions

What are some of the games that you know how to play?

What are some of the math vocabulary words that you know?

What do you think is meant by "Problem of the Day"?

#### Content (the "Meat")

#### Problem of the Day

In this segment you will have a problem to work through with the students. You will want to draw a picture of the problem so they can see that the words are connected to the numbers which represent the story.

If you have 2 chocolate chip cookies and 3 Oreos, how many cookies do you have altogether?

#### Math Facts

The Fact Practice activity will be the same every day for 1st graders and Kindergartners. You may use dice, dominoes, cards, white board, or other items to practice the math facts that are appropriate for the grade level students are in.

#### **Fact Practice**

#### Kindergarten--Counting

During the month you will work with Kindergartners to reinforce the number sense of corresponding the numbers said with an actual number of objects. To help them do that you will create number book. After working with the Kindergartners, if they can verbally count from 11-20, then make the book that counts from 11-20. If they struggle counting to 20, help them to learn those numbers by helping them with this book. You can always do more than one page of and single number if you need more time to reinforce counting.

For the next 10 days work together to create a page together so the Kindergartners will understand how to do this on their own. Use dice or cards to determine the number you will be making out of object. Create large pages out of butcher paper.

# \*Activity → Teachable Moment(s) throughout

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



#### First Grade—Fact Families (They will have different fact families each day)

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day.

Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

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- 2 + 8 = 10
- 8 + 2 = 10
- 10 2 = 8
- 10 8 = 2

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 2, 8 and 10.

#### Math Vocabulary

Each lesson will also have a vocabulary word that is appropriate for the grade level. The word may be reviewed more than one time. Work with the children to create a Vocabulary entry on paper as a class (as 1st grader mature they can do their own journals). The Vocabulary section will follow this pattern. We will practice working on this for the next 11 days.

#### Word for Today: math

**Description:** Math is the word we use that is short for mathematics. Math is the study of numbers, patterns, space, and change. In math we learn about operations, geometry, data and statistics, algebra, and mathematical reasoning.

Complete the journal entry in your Vocabulary Notebook. In space 1, write the word. In space 2, explain the word in your own words. In space 3 use the word in a sentence. In space 4 demonstrate your understanding of the word by drawing a picture of the word.

Vocabulary Notebook Sample:

New Word	My Description
math	A term that is short for mathematics and

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students



Personal Connection  Math is one of my favorite subjects in school.	is about numbers and patterns  Drawing  Math  2111212121212121212121212121212121212	experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).  Vocabulary Notebooks can be made from ½ of a composition book.

#### Math Activity

Each day students will have the opportunity to play different games to practice the skills that they need to work on. For the next several days you will want to help children practice different games. Here is how to introduce games to them and then an opportunity for them to practice different games and activities.

#### **Student Practice**

#### Step 1: Basic Information

- Tell the students the name of the game.
- Tell them the skill that they will be practicing.
- Tell them the materials they will need to play the game.
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- Tell them if the game is cooperative (all students working together to defeat the game) or competitive (each student hopes to defeat the other players).
- Tell them how they will know that the game is over.
- Remind them of how to choose who will be first.
- Remind them at the end of the game that they will need to do to clean-up.

#### Step 2: Demonstration

- Talk the students through the game.
- Give the rules (it is best if they can see these).
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- Go through the game step by step having the volunteers actually make the plays.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- After playing the game for several minutes, praise the first volunteers and ask for 2-3 more.
- Replay the game with the new volunteers, providing less direction but being very responsive if the players are stuck or playing the game incorrectly.
- Ask players to explain what they were thinking when they made a particular move.



- Ask onlookers to make observations or ask questions.
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#### Step 4: Open Play

- Divide students into small groups (you might want to put a "volunteer" who played the game in each of these small groups)
- Have the students play a practice game (no winners or losers) Note: If you are playing
  with cards you might want to have the students display their hand of cards during Open
  Play.
- Check for understanding by asking students to tell another student "how" to play the game from what they experienced.

**Note:** This is the last "practice" for the game. The majority of students will have a full understanding of the game by this point. There will be only minor tweaks and adjustments that need to be made.

#### Step 5: Play

- Have students play the game.'
- Circulate and answer questions as needed.
- Debrief the game at the end asking students:
  - o What skill did you practice?
  - o What did you learn?
  - o What about the game was enjoyable? What makes you say that?
  - o How would you have taught the game differently?

#### Game for the Day

# Just the Facts Players: 2-3

#### Directions:

- 1. Dominoes are placed in the center of the table, face down.
- 2. After deciding who will go first, Player 1 draws a domino, turns it face up and places it down in front of him/her.
- 3. Kindergarten: Play 1 counts the pips on the dominoes and tells how many are on the domino
  - $1^{st}$  Grade: Player 1 totals the pips on the domino by saying (e.g. 2 + 4 = 6). If the answer is correct, then player keeps the domino and play moves on to player 2.
- 4. If player does not say the correct total or sum, then the domino is returned to the pile
- 5. Play continues until all dominoes are taken.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



	Closing
	Review
Say:	
•	Please recap what we did today. Did we achieve our objectives?

#### Debrief

#### **Three Whats**

Ask the following three what questions:

What was your key learning for the day?

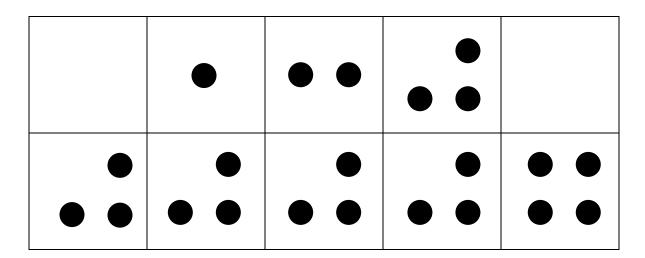
What opportunities might you have to do this same thing in the "real world"?

What advice would you give to a "new" student getting ready to do this activity?

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
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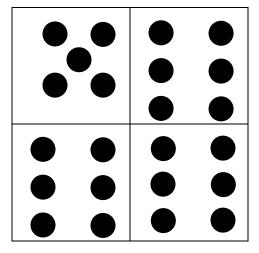


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Component	Math
Grade Level:	Kindergarten-1st Grade
Lesson Title:	Addition
Focus:	Learning Each Math Lesson Segment

#### Materials:

Deck of cards with face cards and jokers removed. Share with children that the "Ace" counts as 1. One deck for every two children.

White boards or paper and pencil

#### Opening

#### State the objective

Today we are going to practice the different aspects of the math lesson plan.

#### Gain prior knowledge by asking students the following questions

What are some of the games that you know how to play?

What are some of the math vocabulary words that you know?

What do you think is meant by "Problem of the Day"?

#### Content (the "Meat")

#### Problem of the Day

In this segment you will have a problem to work through with the students. You will want to draw a picture of the problem so they can see that the words are connected to the numbers which represent the story.

#### If you have 9 apple pieces and you eat 3 of them, how many do you have left?

#### Math Facts

The Fact Practice activity will be the same every day for 1st graders and Kindergartners. You may use dice, dominoes, cards, white board, or other items to practice the math facts that are appropriate for the grade level students are in.

#### **Fact Practice**

#### Kindergarten--Counting

During the month you will work with Kindergartners to reinforce the number sense of corresponding the numbers said with an actual number of objects. To help them do that you will create number book. After working with the Kindergartners, if they can verbally count from 11-20, then make the book that counts from 11-20. If they struggle counting to 20, help them to learn those numbers by helping them with this book. You can always do more than one page of and single number if you need more time to reinforce counting.

For the next 10 days work together to create a page together so the Kindergartners will understand how to do this on their own. Use dice or cards to determine the number you will be making out of object. Create large pages out of butcher paper.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



#### First Grade—Fact Families (They will have different fact families each day)

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 2, 8 and 10. Have students write the entire Fact Family on the white board.

2 + 8 = 10

8 + 2 = 10

10 - 2 = 8

10 - 8 = 2

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 2, 8 and 10.

#### Math Vocabulary

Each lesson will also have a vocabulary word that is appropriate for the grade level. The word may be reviewed more than one time. Youth need to complete the vocabulary entry in an Academic Vocabulary Notebook. The Vocabulary section will follow this pattern. We will practice working on this for the next 11 days.

#### Word for Today: addition

**Description**: Combining two or more groups of things (usually representing by numerals) and finding a total.

Complete the journal entry in your Vocabulary Notebook. In space 1, write the word. In space 2, explain the word in your own words. In space 3 use the word in a sentence. In space 4 demonstrate your understanding of the word by drawing a picture of the word.

Vocabulary Notebook Sample:

New Word	My Description
addition	Combining the values of two or more things into a whole
Personal Connection	Drawing

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have



Do you know how to do addition problems?

-7 + 3 = 10

students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

#### Math Activity

Each day students will have the opportunity to play different games to practice the skills that they need to work on. For the next several days you will want to help children practice different games. Here is how to introduce games to them and then an opportunity for them to practice different games and activities.

#### **Student Practice**

#### Step 1: Basic Information

- Tell the students the name of the game.
- Tell them the skill that they will be practicing.
- Tell them the materials they will need to play the game.
- Tell them how many people may play the game at one time.
- Tell them if the game is cooperative (all students working together to defeat the game) or competitive (each student hopes to defeat the other players).
- Tell them how they will know that the game is over.
- Remind them of how to choose who will be first.
- Remind them at the end of the game that they will need to do to clean-up.

#### Step 2: Demonstration

- Talk the students through the game.
- Give the rules (it is best if they can see these).
- Give a demonstration or a "for example"
- Check for understanding by asking students to tell another student "how" to play the game from what they observed.

#### Step 3: Model

- Ask for 2-3 student volunteers to play a "teaching game" so the remainder of the class can see the game played from beginning to end.
- Ask other students to make a circle around the volunteers so they can see how the game is played.
- Go through the game step by step having the volunteers actually make the plays.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- After playing the game for several minutes, praise the first volunteers and ask for 2-3 more.
- Replay the game with the new volunteers, providing less direction but being very responsive if the players are stuck or playing the game incorrectly.
- Ask players to explain what they were thinking when they made a particular move.
- Ask onlookers to make observations or ask questions.
- Check for understanding by asking students to tell another student "how" to play the game



from what they observed.

#### Step 4: Open Play

- Divide students into small groups (you might want to put a "volunteer" who played the game in each of these small groups)
- Have the students play a practice game (no winners or losers) Note: If you are playing
  with cards you might want to have the students display their hand of cards during Open
  Play.
- Check for understanding by asking students to tell another student "how" to play the game from what they experienced.

**Note:** This is the last "practice" for the game. The majority of students will have a full understanding of the game by this point. There will be only minor tweaks and adjustments that need to be made.

#### Step 5: Play

- Have students play the game.'
- Circulate and answer questions as needed.
- Debrief the game at the end asking students:
  - o What skill did you practice?
  - o What did you learn?
  - o What about the game was enjoyable? What makes you say that?
  - o How would you have taught the game differently?

#### Game for the Day

Duel

Players: 2

#### Directions:

- Shuffle the cards and deal them out.
- 2. Each player puts their cards in a pile facing down.
- 3. Together players flip the top card over and place it in the center.
- 4. The first player to say the names of the numbers on both cards, wins the cards.
- 5. If a player calls an incorrect answer the cards are returned to the bottom of the pile.
- 6. When all cards have been drawn the winner is the player with the most cards.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

#### Closing

#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?



#### Debrief

#### **Three Whats**

Ask the following three what questions:

What was your key learning for the day?

What opportunities might you have to do this same thing in the "real world"?

What advice would you give to a "new" student getting ready to do this activity?

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	Kindergarten
Lesson Title:	Student Choice Review
Focus:	Review

Materials:White boardsdecks of cards with face cards and jokers removedCrayolaspage for the number book (This is the page for 1)Socksitems that children can choose to show one (stickers, stamps, something flatGlue sticks

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about numbers and shapes. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

Count from 10-1 backwards

Using your fingers show each of these numbers: 6, 3, 2, 8, 9, 7

Count from 1-10 forwards

Using your hands, show a circle. Show a triangle. Show a square. Stretch the square into a rectangle

What is the difference between a number and a letter?

#### Content (the "Meat")

#### **Problem of the Day**

Help the children figure out how to solve this problem by giving them several examples. Then put this problem on the board and have them draw the answer that they select on the white board.

Look at the graph below. Children had to pick a favorite color. There is one heart for each child's vote. Which color has the most hearts by it?

red	* * *
green	<b>* *</b>
blue	****

# Fact Practice The Number Book

During this next 11 days you will be working with Kindergartners to develop the number sense of corresponding the numbers said with an actual number of objects. To help them do that you will create a number book. After working with the Kindergartners, if they can

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



verbally count to 10, then make the number book go to 10. If they struggle counting to 10, make the number book with 2 pages for each number 1-5.

#### The Book

**Make the cover and the back for the book.** Remember to have the book pages cut (an 8" square works nicely, glue sticks, and items for the children to select and paste. Once they have completed the book you will want to connect it with either staples or by punching a hole at the top and connecting the pages with a ring. You might want to consider making the cover out of colored card stock and then having the children decorate the front and back cover. If you pre-print the cover you can title it **My Counting Book**. Be sure that the child writes his/her name on the cover so you can send it home.

Double check all of the pages to be sure that the number of items corresponds to the number written by the child. It is important that they see the corresponding number and symbol done correctly or we are reinforcing a misconception/error.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.

#### **Math Vocabulary**

#### Word for Today: rectangle

Today you will review all of the words that the children have learned:

number

circle

square

triangle

rectangle

Have students draw on the white board as you say the word. Ask them to share with one another shat the word means.

Make the symbols and shapes on the board and ask students to identify them for you. Work with them to answer questions in complete sentences—for example, A square has 4 sides that are all the same rather than 4 sides.

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

#### Activity Student Choice

**Review** how to play the games One Less, One More, Count Down and Memory Match. Once you are sure that students know how to play each game, have them choose a partner and play the game that they most enjoy. This will be a good opportunity for you to be sure that these games can be placed in a center or in the "after homework is done" choice. It is important that children can play the game independently which you will know by the end of the session today. If they are not yet independent, then do not put the game out for them when you are not available to help and support the play.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



#### Closing

#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What is a rectangle?

What is another shape that looks like a rectangle only all of the sides are even?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them



Component:	Math
Grade Level:	First Grade
Lesson Title:	Equals One More
Focus:	Math Vocabulary, addition, subtraction, fact families

Materials:

White boards decks of cards with face cards and jokers removed

Crayolas Socks

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What is a Fact Family? If you are adding the number 4 and 3 together, what is the fact family of three numbers? What is a sum?

What is another way of telling you to add?

Write a number sentence for the Fact Family 4, 3, and 7. Circle the sum.

Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing). Sometimes you count forward or backward by 1s, other times by 2s, 3s, 4s, or many more. That's why addition and subtraction were invented so you didn't have to spend so much time counting. It is simply easier once you get the hang of it.

Content (the	e "Meat")	
Problem of the Day Look at the lines below. Which line is longer? How can you tell?		*Activity → Teachable Moment(s) throughout
A	В	During the lesson check in with students repeatedly.
Have students draw this problem on the white be	oard.	Check in about what is happening and what they are thinking.
Fact Practice for $1^{st}$ grade is looking at number fand subtraction. The key is for children to learn another in adding and subtracting. Fact practice Children will look at the math family. (We will be They will write the problem in four ways. $1 + 2 = 3$ $2 + 1 = 3$ $3 - 2 = 1$	families, so you are looking at both addition that numbers have a relationship with one will follow this pattern every day.	Take advantage of any teachable moments.  Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.
3 – 1 = 2		When possible, engage students in a "teach to learn"



After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 1, 3, and 4. Have students write the entire Fact Family on the white board.

- 1 + 5 = 6
- 5 + 1 = 6
- 6 1 = 5
- 6 5 = 1

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 1, 5, and 6.

opportunity and have the student become the teacher.

#### Math Vocabulary

#### Word for Today: equals

The word equals means that the two sides of an equation or a number sentence are the same. When you are looking at a Fact Family we use an equal sign to show that the numbers in the Fact Family are related, they are equal.

For example 3 + 2 = 5. This problem says if you increase 3 by 2 you will have a sum or a total of 5. The Fact Family is then set—3, 2, and 5 will be related.

Have children complete the Vocabulary notebook.

**Vocabulary Notebook Sample:** 

New Word	My Description
equals	Things that have the same value
Personal Connection	Drawing
We need to know how much that equals in order to order the right number.	

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation)

Vocabulary Notebooks can be made from ½ of a composition book.

Students will complete this notebook for each vocabulary word that they are given.

## Activity One More

**Review** how to play the game One More. When you are certain that the children remember how to play the game, let them select a partner to play the game with. After 10 minutes, have them change partners.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



Purpose of the game: Practice recognizing the numbers between 1 and 10 and the

number that is 1 more. **Note**: 10 can only be an answer card. **Materials**: Deck of Cards (remove face cards and jokers)

Players: 2

#### Directions:

- 1. Shuffle the cards.
- 2. Deal 5 cards to each player.
- 3. Player 1 asks Player 2 (3 or 4) for a card that is a number 1 more than his or her card. For example, if the player wants to play his/her 2, he/she would ask for a 3.
- 4. If Player 2 has the card asked for, he/she gives it to Player 1. Player 1 then lays down his/her card and says, "\_\_\_\_ (the card asked for) is one more than \_\_\_\_ (the card Player 1 started with." Example: "3 is one more than 2."
- 5. If Player 2 does not have the card asked for, he/she says, "Draw A Card", and Player 1 draws a card and adds to his/her hand.
- 6. Player 2 then repeats the procedure.
- Game is over when all cards are matched or time is called.

Closing
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#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

Give me an example of two things that are equal.

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Plus One More
Focus:	Addition, comparing numbers/values

Materials:

White boards

decks of cards with face cards and jokers removed

Crayolas Socks

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about addition?

What is a Fact Family? If you are adding the number 2 and 3 together, what is the fact family of three numbers? What is a sum?

In the Fact Family 2, 3, and 5 what is the sum?

Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing). Sometimes you count forward or backward by 1s, other times for 2s, 3s, 4s, or many more. That's why addition and subtraction were invented so you didn't have to spend so much time counting. It is simply easier once you get the hang of it.

#### Content (the "Meat")

#### Problem of the Day

Look at the two boxes below. Which one has the most Happy Faces in it?

0 0 0 0 0 0 0 00000

Have students draw this problem on the white board.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say,

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the



"If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 1, 3, and 4. Have students write the entire Fact Family on the white board.

- 1 + 4 = 5
- 4 + 1 = 5
- 5 1 = 4
- 5 4 = 1

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 1, 4, and 5.

student become the teacher.

#### Math Vocabulary

#### Word for Today: plus

The word plus can be used as another way of saying add. It is representing in the symbol +. Plus means to increase or be bigger.

Have children complete the Vocabulary notebook.

**Vocabulary Notebook Sample:** 

New Word	My Description
plus	A word that means to add together
Personal Connection	Drawing
You can add two numbers by saying 5 plus 4	5+4=9

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation) Vocabulary Notebooks can be made from ½ of a composition book.

Students will complete this notebook for each vocabulary word that they are given.

### Activity One More

Demonstrate how to play the game by bringing the children all together around a single table. Ask for children to volunteer to learn how to play the game. Begin with 2 children. Once you have taught 2, have each of them teach 1 other student while everyone is watching. Repeat one more time so that you now have 4 children teaching 4 other children. When you start to play the game, put the 8 who know how to play the game with 8 who do not and you can observe the final four play.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

Purpose of the game: Practice recognizing the numbers between 1 and 10 and the



number that is 1 more. **Note**: 10 can only be an answer card. **Materials**: Deck of Cards (remove face cards and jokers)

Players: 2

#### Directions:

- 1. Shuffle the cards.
- 2. Deal 5 cards to each player.
- 3. Player 1 asks Player 2 (3 or 4) for a card that is a number 1 more than his or her card. For example, if the player wants to play his/her 2, he/she would ask for a 3.
- 4. If Player 2 has the card asked for, he/she gives it to Player 1. Player 1 then lays down his/her card and says, "\_\_\_\_ (the card asked for) is one more than \_\_\_\_ (the card Player 1 started with." Example: "3 is one more than 2."
- 5. If Player 2 does not have the card asked for, he/she says, "Draw A Card", and Player 1 draws a card and adds to his/her hand.
- 6. Player 2 then repeats the procedure.
- 7. Game is over when all cards are matched or time is called.

#### Closing

#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

Read the problem aloud: 6 + 9 = 15. 3 + 2 = 5. Did you use the word plus?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Beat the Dice
Focus:	Math vocabulary, basic operations, comparing numbers

Materials: White boards dice Crayolas Socks

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What is another way of telling you to add?

What is a Fact Family? If you are adding the number 2 and 4 together, what is the fact family of three numbers? What is a sum?

What does equals mean? How does the = sign connect the numbers of a Fact Family.

#### Content (the "Meat")

#### Problem of the Day

Below there is a ten frame. Some of the boxes have a Happy Face in them. How many more Happy Faces are needed to have 10? Tell how you know.

☺	①	$\odot$	①	$\odot$
$\odot$	·			

Have students draw this problem on the white board.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say,

"If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1".

#### \*Activity → Teachable Moment(s) throughout

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5th day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 1, 3, and 4. Have students write the entire Fact Family on the white board.

2 + 2 = 4

2 + 2 = 4

4 - 2 = 2

4 - 2 = 2

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 2, 2, and 4.

Talk about how we will continue with the four problems in the family even though two problems look exactly the same.

#### Math Vocabulary

#### Words for Today: addition, sum, plus, equals

Today and tomorrow you will be working with the four words addition, sum, plus, and equals to talk about number sentences that you can create to define a problem.

Write the problems on the board or chart paper. Have students read the problems aloud and then create the number sentence for each problem.

Have students read the number sentence using key vocabulary words.

Frank ate 2 pieces of bread for breakfast. He ate 2 more pieces for lunch. How many did he eat in all?

Maria bought 4 cookies with pink frosting. She bought 5 cookies with blue frosting. How many cookies did she have in all?

#### It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation). Vocabulary Notebooks can

be made from ½ of a composition book.

#### Activity **Beat The Dice**

**Review** how to play the game with the students. When you are sure that they are clear on how to play the game, have them pick a partner to play the game with.

Purpose of the game: Practice determining if numbers are greater than, less than, or equal to another number.

Players: 2 Directions:

- 1. Player rolls one die or if a larger number is desired, the player rolls two dice and finds the sum.
- 2. This becomes the target number
- 3. Players prepare their white board in three columns.
- 4. Column 1: > target number
- 5. Column 2: < target number

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



- 6. Column 3: = to target number
- 7. The first player rolls two dice and adds the numbers
- 8. Player decides which column the number sentence goes into
- Player writes the number sentence in the column (e.g. Target number is 7, 2 + 3 < 7)</li>
- 10. Each player rolls 10 times.

Note: There is not a winner or a loser.

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#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### **Debrief**

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What are some of your favorite math vocabulary words?

How do you use them in school?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Beat the Dice and 4 Words
Focus:	Math vocabulary, fact families, addition

Materials:			
White boards	dice		
Crayolas			
Socks			

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What is another way of telling you to add?

What is a Fact Family? If you are adding the number 4 and 3 together, what is the fact family of three numbers? What is a sum?

What does equals mean? How does the = sign connect the numbers of a Fact Family.

# Content (the "Meat") Problem of the Day Look at the list of number. What are the missing numbers? Write them in. How do you know you are right? 1, 2, \_\_\_, 4, 5, 6, \_\_\_, 8, 9, 10 \*Activity Moment(solution) Substitute them in. How do you with students

#### Fact Practice

Have students draw this problem on the white board.

Fact Practice for 1<sup>st</sup> grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 1, 3, and 4. Have students write the entire Fact Family on the white board.

1 + 6 = 7

6 + 1 = 7

7 - 1 = 6

7 – 6 = 1

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 1, 6, and 7.

#### Math Vocabulary

#### Words for Today: addition, sum, plus, equals

Today and tomorrow you will be working with the four words addition, sum, plus, and equals to talk about number sentences that you can create to define a problem.

Write the problems on the board or chart paper. Have students read the problems aloud and then create the number sentence for each problem.

Have students read the number sentence using key vocabulary words.

Mr. Torres has 10 books on a shelf. He buys 3 more books. How many books does he have in all?

Jorge has 3 cars. He receives 8 new cars on his birthday. How many cares does Jorge have in all?

Judy has 4 red hair ribbons. She gets 3 new ones for her birthday. How many red ribbons does Judy have in all?

# It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation). Vocabulary Notebooks can

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Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

be made from ½ of a

composition book.

#### Activity Beat The Dice

Demonstrate how to play the game by bringing the children all together around a single table. Ask for children to volunteer to learn how to play the game. Begin with 2 children. Once you have taught 2, have each of them teach 1 other student while everyone is watching. Repeat one more time so that you now have 4 children teaching 4 other children. When you start to play the game, put the 8 who know how to play the game with 8 who do not and you can observe the final four play

**Purpose of the game:** Practice determining if numbers are greater than, less than, or equal to another number.

Players: 2 Directions:

- 1. Player rolls one die or if a larger number is desired, the player rolls two dice and finds the sum.
- 2. This becomes the target number
- 3. Players prepare their white board in three columns.
- 4. Column 1: > target number
- 5. Column 2: < target number



- 6. Column 3: = to target number
- 7. The first player rolls two dice and adds the numbers
- 8. Player decides which column the number sentence goes into
- 9. Player writes the number sentence in the column (e.g. Target number is 7, 2 + 3 < 7)
- 10. Each player rolls 10 times.

Note: There is not a winner or a loser.

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#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### **Debrief**

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

How will you use today's math in school tomorrow?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Up to Three
Focus:	Math vocabulary, basic operations

Materials:

White boards

3 six-sided dice for each pair

Crayolas Socks

#### Opening

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

Give an example of a subtraction problem.

Why is the difference lower than the first number in a subtraction problem?

In a Fact Family how does the arrangement of the numbers change when you subtract?

What does equals mean? How does the = sign connect the numbers of a Fact Family in a subtraction problem.

#### Content (the "Meat")

#### Problem of the Day

Counting backwards is fun. Look at the list of numbers below. If you are counting backwards, what numbers fit into the spaces? How do you know?

10, 9, 8, 7, \_\_\_\_, 5, \_\_\_\_, 2, 1

Have students draw this problem on the white board.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 1, 3, and 4. Have students write the entire Fact Family on the white board.

2 + 5 = 7

5 + 2 = 7

7 - 2 = 5

7 - 5 = 2

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 2, 5, and 7.

#### Math Vocabulary

#### Word for Today: minus

Minus is another word for subtract. The symbol for minus is -. It means to take away the second number from the first number. In a number sentence you could say 7 minus (-) 5 equals (=) 2

Have children complete the Vocabulary notebook.

**Vocabulary Notebook Sample:** 

New Word	My Description
minus	Means subtraction or taking away
Personal Connection	Drawing
17 minus 11 equals 6.	13 - 6 = 7

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

#### Activity Up To Three

**Demonstrate** how to play the game by bringing the children all together around a single table. Ask for children to volunteer to learn how to play the game. Begin with 2 children. Once you have taught 2, have each of them teach 1 other student while everyone is watching. Repeat one more time so that you now have 4 children teaching 4 other children. When you start to play the game, put the 8 who know how to play the game with 8 who do not and you can observe the final four play.

**Purpose of the game:** Practice adding numbers to find a correct sum.

Materials: Three 6-sided dice for the game

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



# Players: 2

## **Directions:**

- 1. Players create a game board by writing the number 3-18 on a piece of paper or a white board.
- 2. Player 1 rolls 3 dice
- 3. Player totals the 3 dice and crosses out the number that represents the sum
- 4. If the number is already crossed out, the player may roll 1, 2, or 3 dice again For example, the player may keep 1 of the dice and roll only 2 to get another total
- 5. Player may roll up to 3 times before he/she loses his/her turn
- 6. Player 2 repeats
- 7. Game is over when time is called or all of the numbers are crossed out.

Closing
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## Review

### Say:

- Please recap what we did today.
- Did we achieve our objectives?

### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What is a number?

What is a letter?

Are they the same?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Up to Three Plus Four Words
Focus:	Addition

Materials:

White boards

3 six-sided dice for each pair

Crayolas Socks

# Opening

# State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

# Gain prior knowledge by asking students the following questions

Give an example of a subtraction problem.

Why is the difference lower than the first number in a subtraction problem?

In a Fact Family how does the arrangement of the numbers change when you subtract?

What does equals mean? How does the = sign connect the numbers of a Fact Family in a subtraction problem.

# Content (the "Meat")

# Problem of the Day

Look at the graph below. Children had to pick a favorite color. There is one heart for each child's vote. Which color has the most hearts by it?

red	<b>**</b>
green	* *
blue	****

Have students draw this problem on the white board.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say,

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



"If  $1 + \overline{2} = 3$ , then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 1, 3, and 4. Have students write the entire Fact Family on the white board.

2 + 6 = 8

6 + 2 = 8

8 - 2 = 6

8 - 6 = 2

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 2, 6, and 8.

# Math Vocabulary

# Words for Today: subtraction, difference, minus, equals

Today and tomorrow you will be working with the four words subtraction, difference, minus and equals to talk about number sentences that you can create to define a problem.

Fred had 9 cookies. He ate three cookies. How many does he have left?

Juana had 11 socks that were green. She gave 4 of them away. How many does she have left?

The library had 13 books on the shelf. A lady came and checked out 4 of them. How many are still on the shelf?

Martin had 10 toy cars. He gave 3 to his little brother. How many does he have left?

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

# Activity Up To Three

**Demonstrate** how to play the game by bringing the children all together around a single table. Ask for children to volunteer to learn how to play the game. Begin with 2 children. Once you have taught 2, have each of them teach 1 other student while everyone is watching. Repeat one more time so that you now have 4 children teaching 4 other children. When you start to play the game, put the 8 who know how to play the game with 8 who do not and you can observe the final four play.

**Purpose of the game:** Practice adding numbers to find a correct sum.

**Materials:** Three 6-sided dice for the game

Players: 2 Directions:

1. Players create a game board by writing the number 3-18 on a piece of paper or a white board.

2. Player 1 rolls 3 dice.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



- 3. Player totals the 3 dice and crosses out the number that represents the sum.
- 4. If the number is already crossed out, the player may roll 1, 2, or 3 dice again for example, the player may keep 1 of the dice and roll only 2 to get another total.
- 5. Player may roll up to 3 times before he/she loses his/her turn.
- 6. Player 2 repeats.
- 7. Game is over when time is called or all of the numbers are crossed out.

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Review

# Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### **Debrief**

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What do you do when you add?

What do you do to subtract?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Only 10
Focus:	Fact families, math vocabulary, addition

Materials:	
White boards	decks of cards with face cards and jokers removed
Crayolas	
Socks	

# **Opening**

# State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

# Gain prior knowledge by asking students the following questions

What do you know about math?

What do you know about addition?

How old are you today? How old will you be on your next birthday? Did you simply say the next number? Did you add one to your current age? When you increase a number it is addition. How old are you today? How old were you before your last birthday? Did you simply count backwards? Did you subtract one from your current age? Subtraction is what you do when you decrease a number.

Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing)

Content (the "Meat")	
Problem of the Day Romeo the cat is wearing a glove on each of his paws. How many gloves is Romeo	*Activity >> Teachable Moment(s) throughout
wearing? Have students draw this problem on the white board.	During the lesson check in with students repeatedly.
Fact Practice Fact Practice for 1st grade is looking at number families, so you are looking at both addition	Check in about what is happening and what they are thinking.
and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways. $1 + 2 = 3$ $2 + 1 = 3$ $3 - 2 = 1$	Take advantage of any teachable moments.
	Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.
"If $1 + 2 = 3$ , then $2 + 1 = 3$ ".	When possible, engage students in a "teach to learn"



The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

Today you will introduce this activity and begin with the Fact Family of 1, 2, and 3.

Have students write the entire Fact Family on the white board.

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 1, 2, and 3.

opportunity and have the student become the teacher.

# Math Vocabulary

# Word for Today: addition

The word addition means to increase or enlarge. When you add you can accumulate more. For example if I have 3 birds and I acquired one more bird, then I would add the 1new bird to the 3 old birds and have a total of 4 birds. In other words, I have increased the number of birds that I have.

Have children complete the Vocabulary notebook.

Vocabulary Notebook Sample:

New Word	My Description
addition	Math you do when you combine items from several groups into one group
Personal Connection	Drawing
Addition is easy and I like to do it.	4+9=13

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation) Vocabulary Notebooks can be made from ½ of a composition book

Students will complete this notebook for each vocabulary word that they are given.

# Activity Only 10!

Demonstrate how to play the game by bringing the children all together around a single table. Ask for children to volunteer to learn how to play the game. Begin with 2 children. Once you have taught 2, have each of them teach 1 other student while everyone is watching. Repeat one more time so that you now have 4 children teaching 4 other children. When you start to play the game, put the 8 who know how to play the game with 8 who do not and you can observe the final four play.

**Purpose of the game:** Practice addition facts to 10.

**Materials:** Deck of Cards (remove face cards and jokers)

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center



# Players: 2

# Directions:

- 1. Shuffle the cards.
- 2. Place cards in a 4 x 4 grid (4 rows and 4 columns), face down.
- 3. Remainder of cards will be placed on the side of the grid.
- 4. Game is played like Memory, except the player is trying to turn over two numbers that equal exactly 10.
- 5. If player turns over two cards that equal 10, they collect the cards, replace the cards they took from the pile, and take another turn.
- 6. If player does not find two numbers that equal exactly 10, then player loses turn and the next player begins.
- 7. Game is over when there are no more matches to be made.

# Closing

### Review

# Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What are some strategies you use to add?

What is the total of 3 and 8?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math	
Grade Level:	First Grade	
Lesson Title:	Just the Facts and Difference	
Focus:	Math vocabulary, basic operations, fact families,	
Materials:		
White boards	Double 9 Dominoes (attached to this lesson plan)	
Crayolas		
Socks		

# **Opening**

# State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

# Gain prior knowledge by asking students the following questions

What do you know about subtracting?

How is subtraction different from addition?

In a Fact Family how does the arrangement of the numbers change when you subtract?

What does equals mean? How does the = sign connect the numbers of a Fact Family in a subtraction problem.

Content (the "Meat")	
Problem of the Day Look at the rectangles below. Which is the widest? How do you know?	*Activity >> Teachable Moment(s) throughout
	During the lesson check in with students repeatedly.
	Check in about what is happening and what they are thinking.
Have students draw this problem on the white board.	Take advantage of any teachable moments.
Fact Practice Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)  They will write the problem in four ways. $1 + 2 = 3$ $2 + 1 = 3$ $3 - 2 = 1$ $3 - 1 = 2$	Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.  When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 1, 3, and 4. Have students write the entire Fact Family on the white board.

- 2 + 4 = 6
- 4 + 2 = 6
- 6 2 = 4
- 6 4 = 2

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 2, 4, and 6.

# Math Vocabulary

# Word for Today: difference

Difference is the word that means the answer to a subtraction problem. It is the amount that is left when you start with a particular amount and then take a certain amount away, you have the difference left.

Have children complete the Vocabulary notebook.

Vocabulary Notebook Sample:

New Word	My Description
difference	The difference is the result of a subtraction problem
Personal Connection	Drawing
What is the difference between 13 and 8?	13-8-5

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

# Activity Just the Facts

**Demonstrate** how to play the game by bringing the children all together around a single table. Ask for children to volunteer to learn how to play the game. Begin with 2 children. Once you have taught 2, have each of them teach 1 other student while everyone is watching. Repeat one more time so that you now have 4 children teaching 4 other children. When you start to play the game, put the 8 who know how to play the game with 8 who do

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



not and you can observe the final four play. **Purpose of the game:** Practice addition facts

Materials: Double 9 Dominoes, 1 set for each group

Players: 2 Directions:

1. Dominoes are placed in the center of the table, face down.

- 2. After deciding who will go first, Player 1 draws a domino, turns it face up and places it down in front of him/her.
- 3. Player 1 totals the pips on the domino by saying (e.g. 2 + 4 = 6). If the answer is correct, then player keeps the domino and play moves on to player 2.
- 4. If player does not say the correct sum, then the domino is returned to the pile
- 5. Play continues until all dominoes are taken.

	Closing
	Review
Say:	
•	Please recap what we did today.
•	Did we achieve our objectives?
	Debrief
What o	did you like about what we did today in math?
What v	would you like to do more of the next time we do math?

# Reflection (Confirm, Tweak, Aha!)

• Ask students to think about what they did today in math.

How can you use the math we worked on today in school tomorrow?

- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



# **Double 9 Dominoes**

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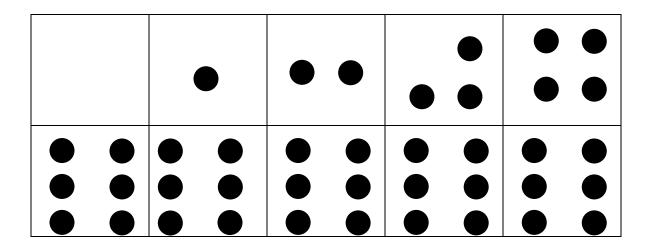
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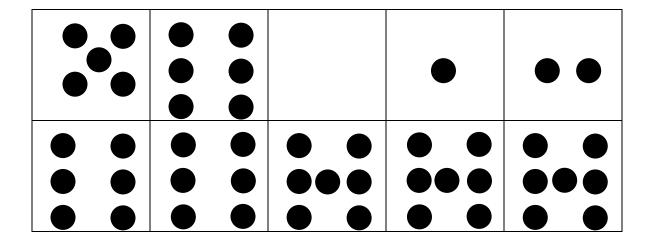
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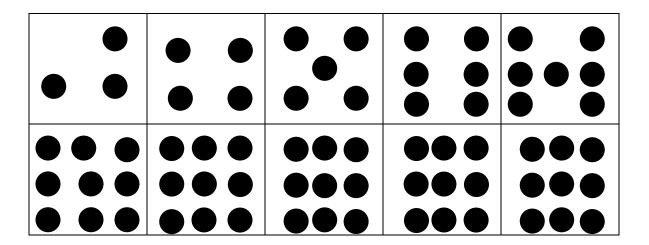
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opportunity and have the

Component:	Math
Grade Level:	First Grade
Lesson Title:	Only 10 and Sum
Focus:	Math vocabulary, addition, and patterns

Materials:	
White boards	decks of cards with face cards and jokers removed
Crayolas	
Socks	

# **Opening**

# State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

# Gain prior knowledge by asking students the following questions

What do you know about addition?

What is a Fact Family? If you are adding the number 2 and 3 together, what is the fact family of three numbers? Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing). Sometimes you count forward or backward by 1s, other times for 2s, 3s, 4s, or many more. That's why addition and subtraction were invented so you didn't have to spend so much time counting. It is simply easier once you get the hang of it.

Content (the "Meat")	
Problem of the Day Look at the pattern below. Copy it and add the next 3 shapes. How do you know you are	*Activity → Teachable Moment(s) throughout
correct?   ▼ ② ▼ ② ▼	During the lesson check in with students repeatedly.
Have students draw this problem on the white board.	Check in about what is happening and what they are
Fact Practice	thinking.
Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one	Take advantage of any teachable moments.
another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways. $1 + 2 = 3$ $2 + 1 = 3$ $3 - 2 = 1$ $3 - 1 = 2$	Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.
After they have written the problem in all 4 ways they will find a partner and say,	When possible, engage students in a "teach to learn"

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1".



You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 1, 3, and 4. Have students write the entire Fact Family on the white board.

1 + 3 = 4

3 + 1 = 4

4 - 1 = 3

4 - 3 = 1

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 1, 3, and 4.

student become the teacher.

# Math Vocabulary

# Word for Today: sum

The word sum represents the answer that you get when you add things together or you increase your original amount by another amount. When you add you get a sum. Have children complete the Vocabulary notebook.

**Vocabulary Notebook Sample:** 

New Word	My Description
sum	Answer to an addition problem
Personal Connection	Drawing
What is the sum of 9 and 5?	Addition:  8 + 3 = 11  Addend Addend Sum

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation)

Vocabulary Notebooks can be made from ½ of a

composition book

Students will complete this notebook for each vocabulary word that they are given.

# Activity Only 10!

**Review** with students how you play the game only 10. Check to be sure that they have a good understanding of how to play the game. When you are sure that they have a good understanding, have the children select a partner to play with. After about 10 minutes, ask them to find a new partner.

Purpose of the game: Practice addition facts to 10.

**Materials:** Deck of Cards (remove face cards and jokers)

Players: 2 Directions:

1. Shuffle the cards.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center



- 2. Place cards in a 4 x 4 grid (4 rows and 4 columns), face down.
- 3. Place remainder of cards in a pile and place on the side of the grid.
- 4. Game is played like Memory, except the player is trying to turn over two numbers that equal exactly 10.
- 5. If player turns over two cards that equal 10, they collect the cards, replace the cards they took from the pile, and take another turn.
- 6. If player does not find two numbers that equal exactly 10, then player loses turn and the next player begins.
- 7. Game is over when there are no more matches to be made.

Closing
Review
Say:
Please recap what we did today.
Did we achieve our objectives?
Debrief
What did you like about what we did today in math?
What would you like to do more of the next time we do math?
What mathematical operation are you using when you find the sum?
What is another word for "sum"?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Subtract and Just the Facts
Focus:	Math vocabulary, fact families,

Materials:		
White boards	Double 9 Dominoes (attached to this lesson plan)	
Crayolas		
Socks		

# **Opening**

# State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

# Gain prior knowledge by asking students the following questions

What do you know about subtracting?

In a Fact Family how does the arrangement of the numbers change when you subtract?

What does equals mean? How does the = sign connect the numbers of a Fact Family in a subtraction problem.

#### Content (the "Meat")

## Problem of the Day

Jill has 4 Happy Faces. Draw a group of Happy Faces that has 1 more than Jill. Jill = ⊚ ⊚ ⊚ ⊙

Have students draw this problem on the white board.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



correct response.

**Today** you will introduce this activity and begin with the Fact Family of 1, 3, and 4. Have students write the entire Fact Family on the white board.

2 + 3 = 5

3 + 2 = 5

5 - 2 = 3

5 - 3 = 2

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 2, 3, and 5.

# Math Vocabulary

Word for Today: subtract

Subtract means to reduce a total by a certain amount. When you subtract it would be like having 5 cookies and eating 2 of them and only have 3 left. If you were to write a number sentence for this story if would say 5 - 2 = 3.

Have children complete the Vocabulary notebook.

Vocabulary Notebook Sample:

New Word	My Description
subtract	Minus or take away from a total
Personal Connection	Drawing
Subtract 9 from 17 to find the difference.	21-7=14

It is important to review academic math vocabulary often throughout the day.
Complete the Vocabulary notebook for each word.
When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).
Vocabulary Notebooks can be made from ½ of a composition book.

# Activity Just the Facts

Demonstrate how to play the game by bringing the children all together around a single table. Ask for children to volunteer to learn how to play the game. Begin with 2 children. Once you have taught 2, have each of them teach 1 other student while everyone is watching. Repeat one more time so that you now have 4 children teaching 4 other children. When you start to play the game, put the 8 who know how to play the game with 8 who do not and you can observe the final four play.

Purpose of the game: Practice addition facts

Materials: Double 9 Dominoes, 1 set for each group

Players: 2 Directions:

1. Dominoes are placed in the center of the table, face down.

2. After deciding who will go first, Player 1 draws a domino, turns it face up and

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



places it down in front of him/her.

- 3. Player 1 totals the pips on the domino by saying (e.g. 2 + 4 = 6). If the answer is correct, then player keeps the domino and play moves on to player 2.
- 4. If player does not say the correct sum, then the domino is returned to the pile
- 5. Play continues until all dominoes are taken.

	Closing
	Review
Say:	
<ul> <li>Please recap what we did today.</li> </ul>	
<ul> <li>Did we achieve our objectives?</li> </ul>	
2.a no asimoro san sajesares.	
	Debrief
	200.101
What did you like about what we did today in math?	
What would you like to do more of the next time we do ma	th?
When do you use subtraction?	
When was the last time you did that?	

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



# **Double 9 Dominoes**

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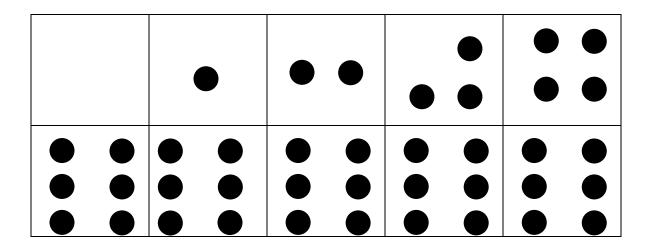
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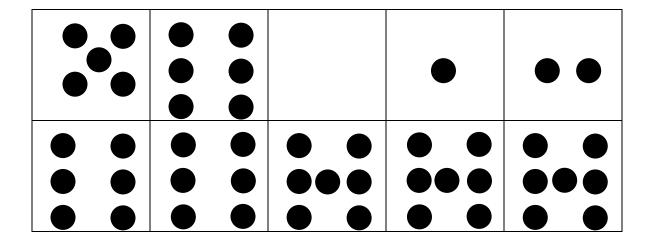
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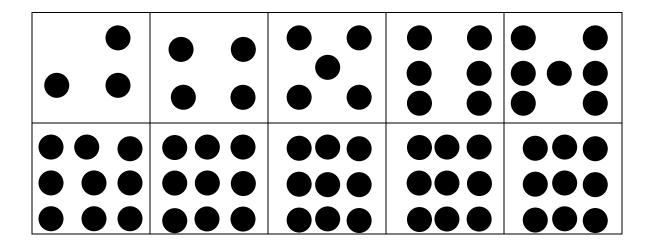
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Component:	Math
Grade Level:	First Grade
Lesson Title:	OOBJU Choice
Focus:	Math
Materials:	
White boards	supplies for all of the games you have taught the students
Crayolas	
Snrks	

# **Opening**

# State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

# Gain prior knowledge by asking students the following questions

Tell the difference between adding and subtracting.

Tell the difference between plus and minus.

Will you have a sum in an addition or a subtraction problem?

Will you have a difference in an addition or a subtraction problem?

Content (the "Meat")				
	Problem of the Day			
Name the shapes below.	_ ^ ^			
Have students draw this problem on the white board.				
Fact Practice				
Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.				

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say,

"If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1".

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher



You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 1, 3, and 4. Have students write the entire Fact Family on the white board.

2 + 7 = 9

7 + 2 = 9

9 - 2 = 7

9 - 7 = 2

have left?

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 2, 7, and 9.

# Math Vocabulary

# Words for Today: subtraction, difference, minus, equals

Today and tomorrow you will be working with the four words subtraction, difference, minus and equals to talk about number sentences that you can create to define a problem.

Laura has 9 small angels. She took 3 of them to her grandmother. How many does she

Joe is very good at track. He has won 14 ribbons. He has them in an envelope. He hung 7 of the ribbons on his wall. How many are still in the envelope?

Phillip was served 6 mini hamburgers on his plate. He has eaten 2 of them. How many are left on the plate?

Patty had 12 candy bars. She gave 5 of them to her friends. How many does she have left?

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

# Activity Student Choice

You have taught the students several games: Only 10, One More, Beat the Dice, Just the Facts, and Up to Three

Review how you play each of the games and then invite the students to select the game that they would like to play today.

Have students pair up with one another to play the games. After about 10 minutes, invite them to switch both partners and games. Do not insist that they do this, simply give them the opportunity to make another choice.

Be sure that you have all of the supplies you need for them to play all of the games.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



# Closing

#### Review

# Say:

- Please recap what we did today.
- Did we achieve our objectives?

### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

Which is your favorite game? What about it do you like?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them



Component:	Math
Grade Level:	First Grade
Lesson Title:	Roll and Compare
Focus:	Comparing Numbers

Materials:

White boards dice

Crayolas Roll and Compare Game Board

Socks Comparison Cards

# **Opening**

# State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

# Gain prior knowledge by asking students the following questions

Give an example of a subtraction problem.

Why is the difference lower than the first number in a subtraction problem?

In a Fact Family how does the arrangement of the numbers change when you subtract?

What does equals mean? How does the = sign connect the numbers of a Fact Family in a subtraction problem...

# Content (the "Meat")

#### Problem of the Day

Write the number that comes before 39. Write the number that comes after 39. How do you know you are right?

Have students draw this problem on the white board.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day.

Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)

They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say,

"If 1 + 2 = 3, then 2 + 1 = 3". The other student will response

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



#### response.

**Today** you will introduce this activity and begin with the Fact Family of 4, 4, and 8.

Have students write the entire Fact Family on the white board.

4 + 4 = 8

4 + 4 = 8

8 - 4 = 4

8 - 4 = 4

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 4, 4, and 8.

# Math Vocabulary

# Word for today: 10s

Review yesterday's conversation with the children. Talk about how we write numbers when we count by 10s. Ask children to count by 10s to 100. As they say each number, write the number on the board. Children should show ten fingers and then close hands into fists and then show ten fingers again when they say the next number. After counting to 100 by tens, show children that the math problem looks like 10 + 10 = 20, 10 + 10 + 10 = 30 and so on.

Have children review the vocabulary entry from yesterday and make any additions or adjustments as needed for today.

# Vocabulary Notebook Sample:

New Word	My Description
tens	Counting numbers that are 10 apart, like 9, 19, 29, 39, and so on
Personal Connection	Drawing
I can count by 10s to 500.	_3, <u>13, 23, 33, 43</u>

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

# Activity Roll and Compare

**Review** how to play the game Roll and Compare. Have children tell you how to play the game. When you are sure that they can play on their own, have them find a partner and play the game. You will use the materials from yesterday.

Materials: Two 6-sided dice for each player

Game Board Game Tokens

Comparison Cards Deck #2 (<, >, =, and between)

Vis-à-vis pens

Players: 2-4

**Purpose of the game:** Practice determining if numbers are greater than, less than, between, or equal to another number.

#### **Directions:**

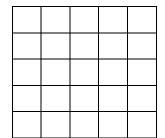
1. Players prepare their own Roll and Compare game board. (There are 25 squares on

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is.



the board. Players should write the numbers 0-15 in the boxes, one number per box. Player may use a number more than one time.)

- 2. Player 1 draws a comparison card and calls out the comparison.
- 3. Player 1 then rolls 2 dice and tells the other players the numbers represented on the dice.
- 4. Players select a number on their board that meets the criteria determined by the comparison die and place a game marker over the number.
- 5. Procedure continues with Player 2 leading and rolling.
- 6. Game is over when 1 or more people have covered 5 in a row, column, or diagonal. See sample board:



# Closing

#### Review

# Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What does it mean to compare a number?

What do these symbols mean: < and >?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Comparing Numbers and Vocabulary
Focus:	Comparing Numbers

Materials:

White boards dice

Crayolas Roll and Compare Game Board (at end of lesson plan)

Socks < and > cards (at end of lesson plan)

# Opening

# State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

# Gain prior knowledge by asking students the following questions

Give an example of a subtraction problem.

Why is the difference lower than the first number in a subtraction problem?

In a Fact Family how does the arrangement of the numbers change when you subtract?

What does equals mean? How does the = sign connect the numbers of a Fact Family in a subtraction problem..

#### Content (the "Meat")

# Problem of the Day

If the  $\stackrel{\triangle}{\Rightarrow}$  = 3 and a  $\checkmark$  = 1, what is the sum of

**☆+♥=** 

Tell how you know.

Have students draw this problem on the white board.

#### Fact Practice

Fact Practice for 1<sup>st</sup> grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



correct response.

**Today** you will introduce this activity and begin with the Fact Family of 3, 9 and 12 Have students write the entire Fact Family on the white board.

3 + 9 = 12

9 + 3 = 12

12 - 3 = 9

12 - 9 = 3

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 3, 9 and 12.

# Math Vocabulary

# Word for Today: tens

Tens is the word we use to describe the place that a numeral can be that represents counting by 10s. While ones is in the place furthest to the right, the 10s place is next to it on the left. The number 10 means 1 ten and no ones. When we get to 10 it is like we bundled the items together and instead of having to count again and again, we can simply look at the bundle and know that it is 10. Just like a dime is 10 pennies collected into one coin, a 10s bundle is 10 items collected into one item—usually with a rubber band or some other way to separate the group of ten from everything else. Ask children to share different ways that you could bundle 10 together (baggie, paper clip, rubber band, envelope, etc.) Have children complete the Vocabulary notebook.

**Vocabulary Notebook Sample:** 

New Word	My Description
tens	Number that are separated by 10, also the tens place to create larger numbers
Personal Connection	Drawing
Now that I am 10, I have a numeral in the tens place.	

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation.

Vocabulary Notebooks can be made from ½ of a composition book.

# Activity Roll and Compare

Demonstrate how to play the game by bringing the children all together around a single table. Ask for children to volunteer to learn how to play the game. Begin with 2 children. Once you have taught 2, have each of them teach 1 other student while everyone is watching. Repeat one more time so that you now have 4 children teaching 4 other children. When you start to play the game, put the 8 who know how to play the game with 8 who do not and you can observe the final four play.

Materials: Two 6-sided dice for each player

Game Board Game Tokens

Comparison Cards Deck #2 (<, >, =, and between)

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



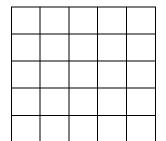
Vis-à-vis pens

Players: 2-4

**Purpose of the game:** Practice determining if numbers are greater than, less than, between, or equal to another number.

#### Directions:

- 1. Players prepare their own Roll and Compare game board. (There are 25 squares on the board. Players should write the numbers 0-15 in the boxes, one number per box. Player may use a number more than one time.)
- 2. Player 1 draws a comparison card and calls out the comparison
- 3. Player 1 then rolls 2 dice and tells the other players the numbers represented on the dice
- 4. Players select a number on their board that meets the criteria determined by the comparison die and place a game marker over the number
- 5. Procedure continues with Player 2 leading and rolling
- 6. Game is over when 1 or more people have covered 5 in a row, column, or diagonal. See sample board:



Closing
Review

# Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

When would you compare numbers?

When would you want the largest number? When would you want the smallest?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way
  which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



# **Roll and Compare Game Board**



**Greater Than—Less Than Comparison Cards** 

Croater Trie	in—Less man compan	
<	<	<
UP ↑	UP ↑	UP ↑
<b>&lt;</b>	<	<
UP ↑	UP ↑	UP ↑
>	>	>
UP ↑	UP ↑	UP ↑
>	>	>
UP ↑	UP ↑	UP ↑



Component:	Math
Grade Level:	First Grade
Lesson Title:	Comparison and Beat the Dice
Focus:	Comparison of Numbers < and >

Materials:	
White boards	Dice
Crayolas	Socks

# **Opening**

# State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

# Gain prior knowledge by asking students the following questions

What do you know about subtracting?

How is subtraction different from addition?

In a Fact Family how does the arrangement of the numbers change when you subtract?

What does equals mean? How does the = sign connect the numbers of a Fact Family in a subtraction problem...

## Content (the "Meat")

# Problem of the Day

Draw a picture to show the number sentence written below.

7 - 3 = 4

Have students draw this problem on the white board.

# **Fact Practice**

Fact Practice for 1<sup>st</sup> grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say,

"If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

Today you will introduce this activity and begin with the Fact Family of 3, 8 and 11

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



Have students write the entire Fact Family on the white board.

3 + 8 = 11

8 + 3 = 11

11 - 3 = 8

11 - 8 = 3

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 3, 8 and 11.

#### Math Vocabulary

#### Word for Today: count

Review the conversation from yesterday with the children. Ask the group to count aloud by 5s, by 10s, and then by 1s. Discuss which one takes longer. Ask them why that is. Ask them when it would be best to count by 5s and when it would be best to count by 1s. Have children review the Vocabulary Notebook from yesterday with a peer and make any additions or corrections.

Vocabulary Notebook Sample:

New Word	My Description
Count	Saying the numbers in order to identify how many of something there is
Personal Connection	Drawing
Please count the number of marbles that I have in the jar.	1, 2, 3, 4, 5, 6

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word.

When possible, have students experience the word. (Ex. 4 students creating a right angle, multiple students acting out an equation.)

Vocabulary Notebooks can be made from ½ of a composition book.

#### Activity Beat the Dice

**Review** how to play the game. Remind students to think carefully before placing the number they rolled in the correct column.

**Purpose of the game:** Practice determining if numbers are greater than, less than, or equal to another number.

#### **Directions:**

- 1. Player rolls one die or if a larger number is desired, the player rolls two dice and finds the sum.
- 2. This becomes the target number.
- 3. Players prepare their white board in three columns.
- 4. Column 1: > target number.
- 5. Column 2: < target number.
- 6. Column 3: = to target number.
- 7. The first player rolls two dice and adds the numbers.
- 8. Player decides which column the number sentence goes into.
- 9. Player writes the number sentence in the column (e.g. Target number is 7, 2 + 3 < 7).
- 10. Each player rolls 10 times.

Note: There is not a winner or a loser.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



#### Closing

#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What does it mean to compare numbers?

What does this sign mean: <?

How would you use is to compare the number 5 and 9?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Greater and Less Comparisons
Focus:	Comparisons < or > or =

Materials:	
White boards	Dice
Crayolas	Socks

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about subtracting?

In a Fact Family how does the arrangement of the numbers change when you subtract?

What does equals mean? How does the = sign connect the numbers of a Fact Family in a subtraction problem...

#### Content (the "Meat")

#### Problem of the Day

If you were to count from 20 to 22, would you count forward 2 or backward 2? How do you know? Share with a peer.

Have students draw this problem on the white board.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 3, 7 and 10 Have students write the entire Fact Family on the white board.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



3 + 7 = 10

7 + 3 = 10

10 - 3 = 7

10 - 7 = 3

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 3, 7 and 10.

#### Math Vocabulary

#### Word for Today: count

Count is a word that describes what we do to find out how many. We can count by ones saying 1, 2, 3, 4, 5, and so on. Sometimes we count by 5s, saying 5, 10, 15, 20, 25. When we count by 5s, we have to move 5 items over at one time and then say 5. When we count by ones, we count one item at a time. You can count forward and you can count backward. When you count forward the number gets larger, when you count backward, the next number you say is smaller than the one before.

Have children complete the Vocabulary notebook.

Vocabulary Notebook Sample:

New Word	My Description
count	Identify the amount of things that you have
Personal Connection	Drawing
I can count to 500.	1, 2, 3, 4, 5

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have students experience the word. (Ex. 4 students creating a right angle, multiple students acting out an equation.)

Vocabulary Notebooks can be made from ½ of a composition book.

#### Activity Beat the Dice

**Demonstrate** how to play the game by bringing the children all together around a single table. (Note: you played this game last month so children may remember how to play the game after a quick review). Ask for children to volunteer to learn how to play the game. Begin with 2 children. Once you have taught 2, have each of them teach 1 other student while everyone is watching. Repeat one more time so that you now have 4 children teaching 4 other children. When you start to play the game, put the 8 who know how to play the game with 8 who do not and you can observe the final four play.

Materials: Two 6-sided dice for the game

White Boards Vis-à-vis pens

Players: 2-4

**Purpose of the game:** Practice determining if numbers are greater than, less than, or equal to another number.

#### Directions:

- 1. Player rolls one die or if a larger number is desired, the player rolls two dice and finds the sum.
- 2. This becomes the target number.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



- 3. Players prepare their white board in three columns.
- 4. Column 1: > target number
- 5. Column 2: < target number
- 6. Column 3: = to target number
- 7. The first player rolls two dice and adds the numbers.
- 8. Player decides which column the number sentence goes into.
- 9. Player writes the number sentence in the column (e.g. Target number is 7, 2 + 3 < 7).
- 10. Each player rolls 10 times.

**Note:** There is not a winner or a loser.

	Closing			
	Review			
Say:				
Please recap what we did today.				
<ul> <li>Did we achieve our objectives?</li> </ul>				
	Debrief			
What did you like about what we did today in math?				
What would you like to do more of the next time we do math?				
Start at 43 and count to 61.				

#### Reflection (Confirm, Tweak, Aha!)

Start at 82 and count backwards to 63.

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Put Them In Order
Focus:	Counting

Materials:

White boards Place Them In Order game board

Crayolas number cards

Socks

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about math?

What do you know about addition?

How many fingers do you have on your right hand? How many fingers do you have on your left hand? How many fingers do you have altogether? Did you add or did you count? When you increase a number it is addition. How many fingers do you have on 2 hands. If you take the fingers on one hand away and hid them behind your back, how many fingers do you have showing? Did you count backwards? Did you subtract? Subtraction is what you do when you decrease a number. Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing).

#### Content (the "Meat")

#### Problem of the Day

Nancy has 3 black rocks and 9 white rocks in a bag. If Nancy pulls a rock out of the bag without looking, which color rock is she most likely to pull out? Why do you think what you think?

Have students draw this problem on the white board.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say,

"If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1".

### \*Activity → Teachable Moment(s) throughout

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the



student become the teacher.

You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5th day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

Today you will introduce this activity and begin with the Fact Family of 2, 8 and 10. Have students write the entire Fact Family on the white board.

2 + 8 = 10

8 + 2 = 10

10 - 2 = 8

10 - 8 = 2

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 2, 8, and 10.

#### Math Vocabulary

#### Word for Today: ones

The word "ones" identifies the place value of a number. The ones place is the number that is written furthest to the right or if a number has only a single digit, then that numeral is in the ones place. The numerals: 0, 1, 2, 3, 4, 5,6,7,8, and 9 can all find themselves in the ones place—just one at a time.

In the number 34, 4 is in the ones place, in the number 76, the 6 is in the ones place. Try several other numbers to determine the digit that is in the ones place.

Have children complete the Vocabulary notebook.

Vocabulary Notebook Sample:

New Word	My Description
ones	We count by 1s when we say a number that is one more
Personal Connection	Drawing
I can count by ones.	1, 2, 3, 4

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

Students will complete this notebook for each vocabulary word that they are given.

#### Activity Put Them In Order

**Demonstrate** how to play the game by bringing the children all together around a single table. Ask for children to volunteer to learn how to play the game. Begin with 2 children. Once you have taught 2, have each of them teach 1 other student while everyone is watching. Repeat one more time so that you now have 4 children teaching 4 other children. When you start to play the game, put the 8 who know how to play the game with 8 who do not and you can observe the final four play.

Materials:

**Put Them In Order** game board and numbers at the end of this game.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



Prepare these by cutting out the numbers.

#### **Directions:**

- 1. Take the numbers and lay them out on the table face up.
- 2. Take turns and put the numbers in order on the Put Them In Order game board.
- 3. Say the number as you place it on the board.

	Closing			
	Review			
Say:				
•	Please recap what we did today.			
•	Did we achieve our objectives?			
	Debrief			
What d	id you like about what we did today in math?			
What would you like to do more of the next time we do math?				
Start at	15 and count to 25.			

#### Reflection (Confirm, Tweak, Aha!)

Start at 49 and count backwards to 31.

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



# Hundreds Chart

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



# Number Cards to cut apart, print on different color paper from the Hundreds Chart

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



Component:	Math
Grade Level:	First Grade
Lesson Title:	Ones and Only 10
Focus:	Addition

Materials:

White boards decks of cards with face cards and jokers removed

Crayolas Socks

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about addition?

What is a Fact Family? If you are adding the number 2 and 3 together, what is the fact family of three numbers? Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing). Sometimes you count forward or backward by 1s, other times for 2s, 3s, 4s, or many more. That's why addition and subtraction were invented so you didn't have to spend so much time counting. It is simply easier once you get the hang of it.

#### Content (the "Meat")

#### Problem of the Day

Jorge wants to read 5 pages in his book. He has already read 2 pages. How many more pages does Jorge need to read? Tell why you think what you think.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



**Today** you will introduce this activity and begin with the Fact Family of 2, 9 and 11.

Have students write the entire Fact Family on the white board.

2 + 9 = 11

9 + 2 = 11

11 - 2 = 9

11 - 9 = 2

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 2, 9 and 11.

#### Math Vocabulary

#### Word for Today: ones

Review the conversation that you had with the students yesterday about ones and the ones place value.

Have children share the Vocabulary notebook with another student. Make any corrections or additions that you think you should make to be more clear about "ones".

**Vocabulary Notebook Sample:** 

New Word	My Description
ones	The place in a number than identifies units, values less than 10
Personal Connection	Drawing
She will place the numeral 8 in the ones place.	325

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word.

When possible, have students experience the word. (Ex. 4 students creating a right angle, multiple students acting out an equation.)

Vocabulary Notebooks can be made from ½ of a composition book.

Students will complete this notebook for each vocabulary word that they are given.

# Activity Only 10!

**Review** with students how you play the game Only 10. (You played it last month) Check to be sure that they have a good understanding of how to play the game. When you are sure that they have a good understanding, have the children select a partner to play with. After about 10 minutes, ask them to find a new partner.

**Purpose of the game:** Practice addition facts to 10.

**Materials:** Deck of Cards (remove face cards and jokers)

Players: 2 Directions:

- 1. Shuffle the cards.
- 2. Place cards in a 4 x 4 grid (4 rows and 4 columns), face down.
- 3. Place remainder of cards in a pile and place on the side of the grid.
- 4. Game is played like Memory, except the player is trying to turn over two numbers that equal exactly 10.
- 5. If player turns over two cards that equal 10, they collect the cards, replace the

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center



cards they took from the pile, and take another turn.

- 6. If player does not find two numbers that equal exactly 10, then player loses turn and the next player begins.
- 7. Game is over when there are no more matches to be made.

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Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### **Debrief**

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What are some things that come in groups of 10?

What number comes just before 10? Just after?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math			
Grade Level:	rade Level: First Grade			
Lesson Title: Clear the Deck and Graph				
Focus:	Number Recognition			

Materials:

White boards decks of cards with face cards and jokers removed

Crayolas Socks

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What is a Fact Family? If you are adding the number 4 and 3 together, what is the fact family of three numbers? What is a sum?

What is another way of telling you to add?

Write a number sentence for the Fact Family 4, 3, and 7. Circle the sum.

Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing). Sometimes you count forward or backward by 1s, other times for 2s, 3s, 4s, or many more. That's why addition and subtraction were invented so you didn't have to spend so much time counting. It is simply easier once you get the hang of it.

Content (the "Meat")	
Problem of the Day	*Activity -> Teachable
Show an AABB pattern. Explain your thinking as to why your drawing is this AABB pattern.	Moment(s) throughout
	During the lesson check in with students repeatedly.
	Check in about what is
Fact Practice	happening and what they are
Fact Practice for 1st grade is looking at number families, so you are looking at both addition	thinking.
and subtraction. The key is for children to learn that numbers have a relationship with one	Take advantage of any
another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)	teachable moments.
They will write the problem in four ways.	Stop the class and focus on a
1 + 2 = 3	student's key learning or
2 + 1 = 3	understanding. Ask open-
3 - 2 = 1	ended questions to determine what the rest of
3 – 1 = 2	
After they have written the problem in all 4 ways they will find a partner and say,	the group is thinking.
"If $1 + 2 = 3$ , then $2 + 1 = 3$ ".	When possible, engage
The other student will respond with "Yes, and since that is true, $3 - 1 = 2$ , and $3 - 2 = 1$ ".	students in a "teach to learn"
You should have them practice this conversation (exactly as it is written) with 3-5 other	opportunity and have the



students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 3, 4 and 7. Have students write the entire Fact Family on the white board.

3 + 4 = 7

4 + 3 = 7

7 - 3 = 4

7 - 4 = 3

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 3, 4 and 7

student become the teacher.

#### Math Vocabulary

#### Word for Today: graph

Remind students that yesterday we discussed how a graph is a picture that helps us to compare different answers to the same question. Ask the children to determine if they like red, green, or blue the best when thinking of those three colors. Create a graph on the board that will show the student responses. Draw a sample of grid paper so children can see how each one of them is linked to one of the responses. Ask each child one at a time his/her preference and then chart the information. At the end have children create a sentence that explains the graph and write it on the board.

Have children review the entry from yesterday that they made in the Vocabulary notebook with a peer. After discussion, student may add or change the notebook if necessary..

Vocabulary Notebook Sample:

New Word	My Description		
graph	A chart that shows the relationship of information and numbers		
Personal Connection	Drawing		
We will make a graph to show how many Skittle there are of each color.	Wange Groups		

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have students experience the word. (Ex. 4 students creating a right angle, multiple students acting out an equation)

Vocabulary Notebooks can be made from ½ of a composition book.

Students will complete this notebook for each vocabulary word that they are given.

#### Activity Clear the Deck

**Review** how to play the game Clear the Deck. When you are certain that the children remember how to play the game, let them select a partner to play the game with. After 10 minutes, have them change partners.

Materials:

Game cards from yesterday

Directions:

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



- 1. Shuffle the cards and divide them equally between two players
- 2. Each person should place his/her 15 cars in a row on his "deck"
- 3. First player turns over one of his/her cards. Person tells the missing number. If he/she is correct, then the card is cleared from the deck and set aside. If child can not name the missing number, he/she turns the number back over and loses his/her turn
- 4. Winner is first student who clear the deck first

#### Closing

#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What can we make a graph of in our program?

When would a graph be helpful in sharing information?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Clear the Deck
Focus:	Sequencing

Materials:

White boards decks of cards with face cards and jokers removed

Crayolas Clear the Deck cards

Socks

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about addition?

What is a Fact Family? If you are adding the number 2 and 3 together, what is the fact family of three numbers? What is a sum?

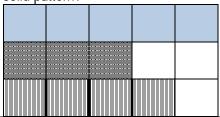
In the Fact Family 2, 3, and 5 what is the sum?

Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing). Sometimes you count forward or backward by 1s, other times for 2s, 3s, 4s, or many more. That's why addition and subtraction were invented so you didn't have to spend so much time counting. It is simply easier once you get the hang of it.

#### Content (the "Meat")

#### Problem of the Day

Look at this graph. Are there more squares with an "X" pattern, a vertical line pattern, or a solid pattern?



#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

### \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn"



$$3 - 2 = 1$$

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 3, 3, and 6. Have students write the entire Fact Family on the white board.

3 + 3 = 6

3 + 3 = 6

6 - 3 = 3

6 - 3 = 3

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 3, 3, and 6

opportunity and have the student become the teacher.

#### Math Vocabulary

#### Word for Today: graph

The word graph describes a tool that you can use in math so you can see and compare different things. For example, graphs might be in squares and you could color in the number of squares that would compare to the number that you are representing. So if you had 3 chocolate chip cookies, you would color in 3 squares, one for each cookie.

Have children complete the Vocabulary notebook.

Vocabulary Notebook Sample:

New Word	My Description		
Graph	A graphic or picture that tells a story about the information you have		
Personal Connection	Drawing		
Yesterday we graphed the number of people who walk home			

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have students experience the word. (Ex. 4 students creating a right angle, multiple students acting out an equation.)

Vocabulary Notebooks can be made from ½ of a

composition book.

Students will complete this notebook for each vocabulary word that they are given.

### Activity Clear the Deck

**Demonstrate** how to play the game by bringing the children all together around a single table. Ask for children to volunteer to learn how to play the game. Begin with 2 children. Once you have taught 2, have each of them teach 1 other student while everyone is watching. Repeat one more time so that you now have 4 children teaching 4 other children. When you start to play the game, put the 8 who know how to play the game with 8 who do

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



not and you can observe the final four play.

#### Materials:

Game cards

#### Directions:

- 1. Shuffle the cards and divide them equally between two players
- 2. Each person should place his/her 16 cards in a row on his "deck"
- 3. First player turns over one of his/her cards. Person tells the missing number. If he/she is correct, then the card is cleared from the deck and set aside. If child can not name the missing number, he/she turns the number back over and loses his/her turn
- 4. Winner is first student who clear the deck first

Closing
Review
Say:
Please recap what we did today.
Did we achieve our objectives?
Debrief
What did you like about what we did today in math?
What would you like to do more of the next time we do math?
Let's make a graph about the number of people who prefer Oreos, Chips Ahoy, and Animal Crackers

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



#### Clear the Deck Cards

5 6	13 15	21 23	3 5
25 27	7 9	1820	3335
9 11	1416	31 33	17 19
1 3	28 30	41 43	11 13
10 12	15 17	2123	3436
3032	24 26	44 46	2931
4042	3840	2729	35 37
48 50	36 38	3941	4345



Component:	Math
Grade Level:	First Grade
Lesson Title:	Circle the Sum
Focus:	Addition

Materials:

White boards Circle the Sum game board

Crayolas Socks

#### Opening

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What is another way of telling you to add?

What is a Fact Family? If you are adding the number 4 and 3 together, what is the fact family of three numbers? What is a sum?

What does equals mean? How does the = sign connect the numbers of a Fact Family.

#### Content (the "Meat")

#### Problem of the Day

Sue is thinking of a number. That number comes between 14 and 16. What is the number?

14 16

Have students draw this problem on the white board.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



**Today** you will introduce this activity and begin with the Fact Family of 3, 5 and 8. Have students write the entire Fact Family on the white board.

3 + 5 = 8

5 + 3 = 8

8 - 3 = 5

8 - 5 = 3

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 3, 5 and 8.

#### Math Vocabulary

#### Word for today: between

The word for today is between. Yesterday we played a game that demonstrated the word "between". In the game, Clear the Deck, you had to find the number that came "between" the two numbers on the card. Between is another way of saving in the middle of. When we make a peanut butter and jelly sandwich, the peanut butter and the jelly are between two slices of bread. In this case there are two things between. If we were to make a sandwich with mayonnaise, mustard, turkey lettuce and cheese between 2 slices of bread, we would have 5 things between.

On the board draw 2 squares at least 2 feet apart. Ask for a student volunteer to come up and draw one thing between the squares. Repeat until you have several items between the squares. Have children complete the vocabulary notebook for the word between.

Vocabulary Notebook Sample:

New Word	My Description
between	In the middle
Personal Connection	Drawing
The sun is in the middle of the 2 happy faces.	

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary

notebook for each word.

When possible, have students experience the word. (Ex. 4 students creating a right angle, multiple students acting out an equation)

Vocabulary Notebooks can be made from ½ of a composition book.

#### Activity Circle the Sum

**Demonstrate** how to play the game by bringing the children all together around a single table. Ask for children to volunteer to learn how to play the game. Begin with 2 children. Once you have taught 2, have each of them teach 1 other student while everyone is watching. Repeat one more time so that you now have 4 children teaching 4 other children. When you start to play the game, put the 8 who know how to play the game with 8 who do not and you can observe the final four play.

Focus on having young people "compete" in pairs or in the "When Homework Is

Materials: Game Board

Vis-à-vis pens

Sock or other eraser

Players: 1

Purpose of the game: Practice addition facts

Directions:

small groups. Once a game is mastered you can utilize it Complete" center.



- 1. Each child is given a game board inside a sheet protector, a vis-à-vis pen and a sock or other eraser.
- 2. Child is given a target number (maybe 10, 9, 11, etc.)
- 3. Child circles as many combinations of numbers as he/she can to find a sum that is equal to the target number.
- 4. Game is over when time is called.

C	losing
R	eview
Say:	
<ul> <li>Please recap what we did today.</li> </ul>	
<ul> <li>Did we achieve our objectives?</li> </ul>	
D	ebrief
What did you like about what we did today in math?	
What would you like to do more of the next time we do math	1?
What was something that you did today that you can use in	school tomorrow?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



### Circle the Sum Game Board

4	3	1	8	2	4	6	7
0	5	2	3	1	4	2	3
5	1	0	6	6	7	3	2
1	4	3	2	1	1	4	1
5	0	3	4	2	7	6	1
3	4	6	1	2	0	8	4
5	2	2	0	4	3	2	3
6	2	1	7	3	2	6	2
5	1	2	4	8	0	2	3



Component:	Math
Grade Level:	First Grade
Lesson Title:	Circle The Sum Between
Focus:	Addition

Materials:
White boards Dice
Crayolas Socks

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What is another way of telling you to add?

What is a Fact Family? If you are adding the number 2 and 4 together, what is the fact family of three numbers? What is a sum?

What does equals mean? How does the = sign connect the numbers of a Fact Family.

#### Content (the "Meat")

#### Problem of the Day

There are two rectangles below. Each one has triangles in it. Which rectangle has the fewest number of triangles?

Have students draw this problem on the white board.

#### Fact Practice

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are

Take advantage of any teachable moments.

thinking.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



correct response.

**Today** you will introduce this activity and begin with the Fact Family of 3, 6 and 9. Have students write the entire Fact Family on the white board.

3 + 6 = 9

6 + 3 = 9

9 - 3 = 6

9 - 6 = 3

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 3, 6 and 9.

Talk about how we will continue with the four problems in the family even though two problems look exactly the same.

#### Math Vocabulary

#### Word for today: between

Review the discussion that you had about the word between yesterday. Have students think about their favorite sandwich. Have them share with a peer the items that would come between the bread.

Have students review yesterday's vocabulary entry with the same person and add or change anything that makes sense to them to do.

#### **Vocabulary Notebook Sample:**

New Word	My Description
between	In the middle
Personal Connection	Drawing
The circle is between the triangle and the square.	

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word.

When possible, have students experience the word. (Ex. 4 students creating a right angle, multiple students acting out an equation.)

Vocabulary Notebooks can be made from ½ of a composition book.

### Activity Circle the Sum

**Review** how to play the game with the students. When you are sure that they are clear on how to play the game, have them pick a partner to play the game with. Give them a different target number today and ask them to play the game with a different partner.

**Materials**: Game Board

Vis-à-vis pens

Sock or other eraser

Players: 1

Purpose of the game: Practice addition facts

Directions:

- 1. Each child is given a game board inside a sheet protector, a vis-à-vis pen and a sock or other eraser.
- 2. Child is given a target number.
- 3. Child circles as many combinations of numbers as he/she can to find a sum that is

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



equal to the target number.	
4. Game is over when time is called	

	Closing	
	Review	
Say:		
Please recap what we did today.		
<ul> <li>Did we achieve our objectives?</li> </ul>		
	Debrief	
What did you like about what we did today in math	ነ?	
What would you like to do more of the next time w	ve do math?	
What does it mean to put things between?		
Demonstrate a space between your hands.		

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	RBCCP Review
Focus:	Review

Materials:	
White boards	supplies for all of the games you have taught the students
Crayolas	
Socks	

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

Tell the difference between adding and subtracting.

Tell the difference between plus and minus.

Will you have a sum in an addition or a subtraction problem?

Will you have a difference in an addition or a subtraction problem?

#### Content (the "Meat")

#### Problem of the Day

What is the sum of 24 and 31? Write the answer in both numbers and words.

Have students draw this problem on the white board.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 4, 5 and 9. Have students write the entire Fact Family on the white board.

4 + 5 = 9

5 + 4 = 9

9 - 4 = 5

9 - 5 = 4

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 4, 5 and 9.

#### Math Vocabulary

Words for today: tens, count, between, graph, ones,

Review all of the words that students have worked with for the past 11 days. Ask students to share the vocabulary notebook. Ask them to demonstrate the word. Have students share the notebook with a peer. Check for understanding.

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation). Vocabulary Notebooks can be made from ½ of a composition book.

#### Activity Student Choice

You have taught the students several games: Roll and Compare, Beat the Dice, Circle the Sum, Clear the Deck, and Put Them in Order (as well as games from last month).

Review how you play each of the games and then invite the students to select the game that they would like to play today.

Have students pair up with one another to play the games. After about 10 minutes, invite them to switch both partners and games. Do not insist that they do this, simply give them the opportunity to make another choice.

Be sure that you have all of the supplies you need for them to play all of the games.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



#### Closing

#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What are some of the ways that you can compare numbers?

For what reason it is important that you can read and write numbers in order?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Calendar
Focus:	Calendar
Materials:	
White boards	
Crayolas	
Socks	

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What have you learned this week that helps you make more sense out of math? Share with your friend the Fact Families that you have been studying?

Content (the "Meat")
Problem of the Day
Complete this list of numbers:
5, 10, 15,,, 45, 50
Fact Practice Fact Practice for 1st grade is looking at number families, so you are looking at both addition

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 3

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



correct response.

**Today** you will introduce this activity and begin with the Fact Family of 4, 7, and 11. Have students write the entire Fact Family on the white board.

4 + 7 = 11

7 + 4 = 11

11 - 4 = 7

11 - 7 = 4

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 4, 4, and 8.

#### Math Vocabulary

#### Word for today: pattern

Pattern is a word that describes a way that something is organized. Patterns repeat themselves. For example, the American flag repeats red and white stripes. Other patterns can be found in plaid, wallpaper, and in the way numbers work together. Think of a place where a pattern makes sense.

Create an entry in your Vocabulary Notebook to demonstrate your understanding of the word pattern.

#### Vocabulary Notebook Sample:

New Word	My Description
pattern	Something that is organized and can be reproduced
Personal Connection	Drawing
I made a pattern out of the blocks.	❷❷❷☆☆♥❷❸⊕☆☆♥❸

It is important to review academic math vocabulary often throughout the day.
Complete the Vocabulary notebook for each word.
When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).
Vocabulary Notebooks can be made from ½ of a

composition book.

#### **Activity**

#### Calendar

#### Materials:

Calendar template attached to this lesson plan

#### Directions:

- 1. Students will work independently.
- Give each student a calendar grid.
- 3. Student should label the days of the week.
- 4. Student should label the name of the month.
- 5. Student should insert the date onto the calendar.
- 6. Student add pictures to identify special days (holidays, birthdays, special activities)

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



	Closing
	Review
Say:	
<ul><li>Please recap what we did today.</li><li>Did we achieve our objectives?</li></ul>	
	Debrief
What did you like about what we did today in math?	
What do you know about a calendar?	
What are the names of the month?	
What are the names of the days of the week?	

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



# **Calendar Template**

### Name of Month

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		



Component:	Math
Grade Level:	First Grade
Lesson Title:	Cereal Sort
Focus:	Attributes

Materials:

White boards Crayolas small cup Lucky Charms

Socks

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing). Sometimes you count forward or backward by 1s, other times for 2s, 3s, 4s, or many more. That's why addition and subtraction were invented so you didn't have to spend so much time counting. It is simply easier once you get the hang of it.

What do you know about addition?

What is a Fact Family? If you are adding the number 6 and 8 together, what is the fact family of three numbers? What is a sum?

In the Fact Family 6, 4, and 10 what is the sum?

#### Content (the "Meat")

#### Problem of the Day

Look at the graph below. How many people like happy faces? How many more people like happy faces than musical notes?

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1	2	3	4	5

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 1, 8, and 9. Have students write the entire Fact Family on the white board.

1 + 8 = 9

8 + 1 = 9

9 - 1 = 8

9 - 8 = 1

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

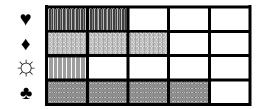
Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 1, 8 and 9

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.

#### Math Vocabulary

#### Word for Today: graph

The word graph describes a tool that you can use in math so you can see and compare different things. For example, graphs might be in squares and you could color in the number of squares that would compare to the number that you are representing. So if you had 3 chocolate chip cookies, you would color in 3 squares, one for each cookie. Look at the graph. It shows how children voted to tell someone which shape was a favorite. When you look at the chart, which shape is the favorite?



Have children complete the Vocabulary notebook.

Vocabulary Notebook Sample:

New Word	My Description		
graph	A drawing to show information		
Personal Connection	Drawing		
I can graph the number of cars that are blue.			

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a

composition book.



Students will complete this notebook for each vocabulary word that they are given.	
Activity	Focus on having young
Cereal Sort Materials:	people "compete" in pairs or small groups. Once a game
Cups (2 oz.)	is mastered you can utilize it
	<b>3</b>
Lucky Charms (maybe 2 boxes)	in the "When Homework Is
	Complete" center.
Directions:	
1. Give each pair of students a cup of Lucky Charms.	
2. Ask students to work together to sort the Lucky Charms into categories (color, shapes, cereal	
vs. marshmallow).	
3. Have students draw a graph to show the sort that they have made and share it with the class.	
4. Let students eat the Lucky Charms when you are finished.	

Closing
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#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

Name something that we could graph.

If you were graphing something that began with a value of 4 and then moved to a value of 9, would the graph show more or less?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Cereal How Many
Focus:	Estimation

Materials:

White boards assorted cereals

Crayolas cups

Socks

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What is another way of telling you to add?

What is a Fact Family? If you are adding the number 4 and 3 together, what is the fact family of three numbers? What is a sum?

What does equals mean? How does the = sign connect the numbers of a Fact Family.

#### Content (the "Meat")

#### Problem of the Day

If a  $\nabla$  = 5 and a  $\Gamma$  = 3, how much do you have if you have this number sentence:

#### **♥** + Γ=

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3. then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5th day, you will utilize all 4 problems from the days before, and

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 2, 8 and 10. Have students write the entire Fact Family on the white board.

2 + 8 = 10

8 + 2 = 10

10 - 2 = 8

10 - 8 = 2

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 2, 8 and 10.

#### Math Vocabulary

#### Word for today: how many?

How many is a question asked when you want to know a total. Write a number sentence for this story: Shelly has 8 marbles. John gives her 7 marbles. How many marbles does Shelly have now?

Ask students to give you another problem. Illustrate it on the board and then create a number sentence.

Have children complete the vocabulary notebook for the word between.

**Vocabulary Notebook Sample:** 

New Word	My Description
How many	Ask the question about quantity, total number
Personal Connection	Drawing
He asked me how many sweaters I had.	?

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have

students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

#### Activity

#### How many? Materials:

- 2 ounce cups
- Cheerios
- Rice Chex
- Trix
- white board

#### Directions:

- 1. Have students work in pairs.
- 2. Students should make a guess as to how many piece of each cereal it will take to fill the 2 ounce cup.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



3.	Students should write the estimate on the white board, being sure to label the cereal
	type.
4.	Once students have estimated the number of pieces of each cereal, students should
	get 1 cup of each type of cereal and count the pieces.
5.	Students should write a comparison statement: My guess, Actual Number
	for each type of cereal.

	Closing
	Review
Say:	
<ul> <li>Please recap what we did today.</li> </ul>	
<ul> <li>Did we achieve our objectives?</li> </ul>	
	Debrief
What did you like about what we did today in math?	
What does the term "how many" mean?	
What operation (addition or subtraction) do you do to ansi	wer the question, "How many?"

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Domino Cereal Word Problems
Focus:	Review

Materials:

White boards

Cocoa Puffs Crayolas Socks Rice Chex

Trix

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you like best about working with numbers?

What does it mean to estimate?

What is a coin?

What is a number sentence?

	Content (the "Meat")	
This is Fred's domino. Write a	Problem of the Day	*Activity → Teachable Moment(s) throughout
number sentence that tells how many dots on the domino.	•	During the lesson check in with students repeatedly.
	•	Check in about what is happening and what they a thinking.
Fact Dractice for 1st grade is look	Fact Practice	Take advantage of any teachable moments.

Fact Practice for 1<sup>st</sup> grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day.

Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)

They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say,

"If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1".

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Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 4, 8 and 12. Have students write the entire Fact Family on the white board.

4 + 8 = 12

8 + 4 = 12

12 - 4 = 8

12 - 8 = 4

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 4, 8 and 12.

#### Math Vocabulary

#### Words for today: domino

A domino is a game piece that has dots or spots on it. A domino is divided into two sides and sometimes you can have a domino that only has spots on one side or the other. Sometimes there are dots on both sides. The most common dominos have from double 0 to double 6 sets of spots. You play dominos by matching the spots. Another kind of dominos are called Double Nines which means the spots go from double zero to double 9.

Create an entry for the word domino in your Vocabulary Notebook.

#### Vocabulary Notebook Sample:

New Word	My Description
domino	Rectangular game piece with dots on it
Personal Connection	Drawing
I like to use the dominoes to add.	

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a

composition book.

#### Activity

#### Cereal Word Problems

#### Materials

- 2 ounce cups
- Student's favorite cereals (Trix, Cocoa Puffs, etc.)

#### Directions:

- 1. Have students work in pairs.
- 2. Have each student get a cup of his/her favorite cereal.
- 3. Students work together to write number sentences about the cereal (they do not have to use

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



	all of the cereal for every problem.	
4.	Students should write at least 10 number sentences.	

	Closing	
	Review	
Say:		
<ul> <li>Please recap what we did today.</li> </ul>		
<ul> <li>Did we achieve our objectives?</li> </ul>		
	Debrief	
Tell how you think you would play the game of do	ninos.	
Tell why it is important to understand how to write	a number sentence?	

#### Reflection (Confirm, Tweak, Aha!)

• Ask students to think about what they did today in math.

Tell what the common U.S. coins are named and how much they are worth.

- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	How Long?
Focus:	Estimation

Materials:

White boards paper clips
Crayolas strings
Socks scissors

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about subtracting?

In a Fact Family how does the arrangement of the numbers change when you subtract?

What does equals mean? How does the = sign connect the numbers of a Fact Family in a subtraction problem.

	Content (	the	"Meat"
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#### Problem of the Day

I am the answer to the number sentence

5 + 2 =

What number am I?

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



**Today** you will introduce this activity and begin with the Fact Family of 3, 8 and 11. Have students write the entire Fact Family on the white board.

3 + 8 = 11

8 + 3 = 11

11 - 3 = 8

11 - 8 = 3

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 3, 7 and 10.

#### Math Vocabulary

#### Word for Today: estimate

Estimate is to make a great guess about how many things you think there are in any identified space. Ask students to talk about things that would make sense to estimate rather than count, since there are so many of them. (beans, fish in a pond, glasses of water in a five gallon bottle.

Have children review the Vocabulary Notebook.

Vocabulary Notebook Sample:

New Word	My Description
estimate	Make a guess based on information gathered
Personal Connection	Drawing
I estimate the answer to be 352 jelly beans.	

It is important to review academic math vocabulary often throughout the day.
Complete the Vocabulary notebook for each word.
When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).
Vocabulary Notebooks can be made from ½ of a composition book.

#### Activity

#### How Long? Materials

- Paper clips
- Strings(students to cut to different lengths)
- Scissors
- White board
- Crayolas

#### Directions:

- 1. Have students work in pairs
- 2. Each pair comes up and cut 6 different strings of different lengths.
- 3. Student pick up a handful of paper clips.
- 4. Students "string" the paper clips together to use as a tool to measure.
- 5. Looking at each piece of string, students estimate how many paper clips long the string is.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



- 6. Students record the number and then actually measure the string against the paper clips.
- 7. Students determine how close the estimation was.
- 8. Students share results with one another.

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#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What does it mean to measure something?

If you didn't use paper clips to measure something, what else might you do?

How many paper clips tall are you? What's your best guess?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	M and M Graph
Focus:	Graphing
Materials:	
White boards	M and M small packages

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

Give an example of a subtraction problem.

Why is the difference lower than the first number in a subtraction problem?

In a Fact Family how does the arrangement of the numbers change when you subtract?

What does equals mean? How does the = sign connect the numbers of a Fact Family in a subtraction problem.

# Problem of the Day What would you call the shape below? Fact Practice Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)

They will write the problem in four ways. 1 + 2 = 3

Crayolas Socks

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



through his/her cards (of course we hope they remember without looking) and gives the correct response. **Today** you will introduce this activity and begin with the Fact Family of 4, 6 and 10 Have students write the entire Fact Family on the white board. 4 + 6 = 106 + 4 = 1010 - 4 = 610 - 6 = 4Bring two students up to practice the conversation. Try it again with several other pairs of students. Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 3, 9 and 12. It is important to review Math Vocabulary academic math vocabulary Word for Today: cube often throughout the day. Cube is a word that describes a shape that has 6 equal sides. It is a three dimensional Complete the Vocabulary figure. It is made up of a faces that are squares but a cube is not flat like a square. Think notebook for each word. of things that you see in the world which are shaped like a cube. When possible, have students experience the word Have children complete the Vocabulary notebook. (Ex. 4 students creating a **Vocabulary Notebook Sample:** right angle, multiple students New Word My Description acting out an equation). Vocabulary Notebooks can Hot dogs, mustard, catsup, drinks, ball cube be made from ½ of a games, family fun at the park composition book. Personal Connection Drawing I put 4 ice cubes in my glass of tea. Activity Focus on having young M and M Graph people "compete" in pairs or Materials: small groups. Once a game is mastered you can utilize it Small bag of M and Ms for each pair of students Graph paper (attached to this lesson plan) in the "When Homework Is Crayons Complete" center. **Directions:** 1. Students work in pairs. 2. Students create a graph to show how many of each color of M and M is in the bag.

- 3. Students prepare the graph (demonstrate how to color in the squares).
- 4. Students share the individual graphs with the class.
- 5. Create a class graph combining all of the M and Ms.

Review



#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math? What is a cube?

How many sides does a cube have?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Number Sentence and Penny Graph
Focus:	Graph

Materials:	
White boards	penny graph
Crayolas	
Socks	

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about subtracting?

In a Fact Family how does the arrangement of the numbers change when you subtract?

through his/her cards (of course we hope they remember without looking) and gives the

What does equals mean? How does the = sign connect the numbers of a Fact Family in a subtraction problem...

Content (the "Meat")	
Problem of the Day Mark has a card with the number sentence	*Activity → Teachable Moment(s) throughout
3 + 4 = on it. Judy has a card with the number sentence 4 + 7 = on it. Who has a card with the greatest sum? How do you know?	During the lesson check in with students repeatedly.
Fact Practice Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day.	Check in about what is happening and what they are thinking. Take advantage of any teachable moments.
Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)  They will write the problem in four ways.  1 + 2 = 3 2 + 1 = 3 3 - 2 = 1 3 - 1 = 2  After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".  The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1".  You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5 <sup>th</sup> day, you will utilize all 4 problems from the days before, and	Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.  When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.
the conversation will follow the pattern, but the second responder will need to quickly look	



correct response.

**Today** you will introduce this activity and begin with the Fact Family of 3, 9 and 12 Have students write the entire Fact Family on the white board.

3 + 9 = 12

9 + 3 = 12

12 - 3 = 9

12 - 9 = 3

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 3, 8 and 11.

#### Math Vocabulary

#### Word for Today: number sentence

A number sentence is a math problem that is written to tell or capture a story. For example, if the story is this: Judy has 3 dolls. She is given 5 dolls. How many dolls does Judy have? Would be written in a number sentence that looks like this: 3 + 5 = 8

Have children create an entry in the Vocabulary notebook for the term number sentence.

**Vocabulary Notebook Sample:** 

New Word	My Description
Number sentence	A sentence in numbers that shares information
Personal Connection	Drawing
18 onions and 17 olives equals 35 items.	13-4=9

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

#### **Activity**

#### Penny Graph

**Materials:** Make a copy of the Penny graph for each pair of students (graph at end of lesson plan)

1 penny for each pair of students

#### Directions:

- 1. Explain to the students what is meant by "heads" and "tails".
- 2. Tell students that they are going to "toss" the coin and let it land on either "heads" or "tails".
- 3. Once the coin has landed, students will record whether or not it landed on heads or tails.
- 4. Pair should toss the coin 10 times.
- 5. Do the entire activity with the students and then let them begin to work in pairs.
- 6. When finished, students must explain the results to the class.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

#### Closing



#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What is a number sentence?

Turn to your partner and give them a number sentence that tells how old you are if your ages are combined.

Are they the same?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



# Penny Graph



Component:	Math
Grade Level:	First Grade
Lesson Title:	Make A Dollar
Focus:	Money

Materials:	
White boards	decks of cards with face cards and jokers removed
Crayolas	
Socks	

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing). Sometimes you count forward or backward by 1s, other times for 2s, 3s, 4s, or many more. That's why addition and subtraction were invented so you didn't have to spend so much time counting. It is simply easier once you get the hang of it.

What is a Fact Family? If you are adding the number 7 and 6 together, what is the fact family of three numbers? What is a sum?

What is another way of telling you to add?

Write a number sentence for the Fact Family 7, 6 and 13. Circle the sum.

Content (the "Meat")	
Problem of the Day If you have pennies and nickels how can you make 10¢?	*Activity >> Teachable Moment(s) throughout
Nickel = 5¢	During the lesson check in with students repeatedly.
Penny = 1¢  Fact Practice	Check in about what is happening and what they are thinking.
Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day.	Take advantage of any teachable moments.
Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)  They will write the problem in four ways. $1 + 2 = 3$ $2 + 1 = 3$ $3 - 2 = 1$	Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 1, 9 and 10. Have students write the entire Fact Family on the white board.

1 + 9 = 10

9 + 1 = 10

10 - 1 = 9

10 - 9 = 1

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 1, 9 and 10.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.

#### Math Vocabulary

#### Word for Today: coin

The word coin refers to any metal circle which has been stamped with official symbols. In America, a coin can usually be a penny, a nickel, a dime, a quarter, and a 50¢ piece. A coin is received when someone needs to make change because the amount needed is not a dollar. Think about how each of these coins looks. Which is the largest, which the smallest? Which ones appear to be silver, which one is copper?

Complete an entry for coin in your Vocabulary Notebook.

Vocabulary Notebook Sample:

New Word	My Description
coin	A metal piece of money: dime, nickel quarter, penny
Personal Connection	Drawing
Did you put a coin in the box?	

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have

students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

Students will complete this notebook for each vocabulary word that they are given.

#### Activity

## Make A Dollar Materials:

• Real or plastic coins (you can also go on line and get pictures of coins and print, however Lakeshore has coins relatively inexpensively and they can be used in a lot of different ways

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is



#### Directions:

- 1. Place all coins or coin cards in the center, face up.
- 2. Player selects coins to make \$1.00.
- 3. Player writes the equation: \$.25 + \$.10 + \$.10 + \$.05 + \$.50 = \$1.00.
- 4. Coins are returned to the center for the next player to use.

Complete" center.

#### Closing

Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

Debrief

What did you like about what we did today in math?

How can you use the information from today in school tomorrow?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Graphing Coins Estimate
Focus:	Graphing

Materials:

White boards jar of real or plastic coins

Crayolas white paper Socks Pencils

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What is a coin?

How many pennies does it take to make \$1.00

#### Content (the "Meat")

#### Problem of the Day

Explain how the shapes below are alike and how they are different.





#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5th day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



**Today** you will introduce this activity and begin with the Fact Family of 3, 7 and 10. Have students write the entire Fact Family on the white board.

3 + 7 = 10

7 + 3 = 10

10 - 3 = 7

10 - 7 = 3

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 3, 6 and 9.

Talk about how we will continue with the four problems in the family even though two problems look exactly the same.

#### Math Vocabulary

#### Word for today: estimate

Estimate is a word that means to make a best guess. If you estimate something you make a very intentional decision about how many you think can be in the group that you are estimating. For example, if you reach into the candy jar for jelly beans and you bring out a handful and have 25 jelly beans, and if you were to guess the entire jar looks like it holds 4 handfuls of jelly beans, you would estimate that there are 100 jelly beans in the jar. That is a guess that would make sense so it is a good estimate.

Create an entry in your Vocabulary Notebook for the word estimate.

Vocabulary Notebook Sample:

New Word	My Description
estimate	Making a guess based on information gathered
Personal Connection	Drawing
I estimate that it is 500 miles from here.	500 miles

It is important to review academic math vocabulary often throughout the day.
Complete the Vocabulary notebook for each word.
When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).
Vocabulary Notebooks can be made from ½ of a composition book.

#### Activity

#### **Graphing Coins**

#### Materials:

- Paper
- Pencil
- Jar of coins (pennies, dimes, nickels, quarters)

#### Directions:

- 1. Students work in pairs and trace around one another's hand (student should create two hands).
- 2. After the hands are draw, student reaches into the container of coins and pulls out a handful.
- 3. He/she then counts the number of each coin that he/she has drawn from the container.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



- 4. Student draws the coins in the hand that was traced.
- 5. Students put the coins back in the jar and then prepare a graph of the coins that were drawn out
- 6. Students share the graph with the class.

	Closing
	Review
Say:	
•	Please recap what we did today.
•	Did we achieve our objectives?
	Debrief
What d	lid you like about what we did today in math?
What v	vould you like to do more of the next time we do math?
Name	the different coins that we use.
How do	o you make a guess about how many steps to the counter?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Two Scoops
Focus:	Measurement

Materials:

White boards raisins

Crayolas 2 ounce cups

Socks

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about addition?

What is a Fact Family? If you are adding the number 5 and 3 together, what is the fact family of three numbers? Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing). Sometimes you count forward or backward by 1s, other times for 2s, 3s, 4s, or many more. That's why addition and subtraction were invented so you didn't have to spend so much time counting. It is simply easier once you get the hang of it.

#### Content (the "Meat")

#### Problem of the Day

If this month is December, what was last month? What is next month? How do you know?

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the



through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 1, 7 and 8. Have students write the entire Fact Family on the white board.

- 1 + 7 = 8
- 7 + 1 = 8
- 8 1 = 7 when you touched the in between part of your knuckles.
- 8 7 = 1

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 1, 7 and 8

student become the teacher.

#### Math Vocabulary

#### Word for Today: month

A month is a period of time that is measured in days. There are twelve months each year. Some of the months have 30 days. Some months have 31 days. One month has 28 days except for every four years it has 29 days.

The months of the year are January, February, March, April, May, June, July, August, September, October, November, December

If you put your fists out in front of you and you start on the knuckle of the smallest finger of your left hand, and say the months of the year as you touch the knuckle, then the space in between the knuckle, the knuckle, the space between the knuckle and so on, you will say January, February, March, April, May, June, July (you will be at the end of your left hand). You will begin August when you touch the knuckle on your right hand. September is the space, October the knuckle, November the space, and December the knuckle. Now you might wonder why that makes a difference. Every month you said when you touched a knuckle has 31 days. February has 38 or 29 dependent on the year. April, June, September, and November all have 30 days. These were the months you named In your Vocabulary Notebook create an entry for the word month.

Vocabulary Notebook Sample:

New Word	My Description
Month	Measurement of time: January, May
Personal Connection	Drawing
There are 12 months in the tear.	

Students will complete this notebook for each vocabulary word that they are given.

It is important to review academic math vocabulary often throughout the day.
Complete the Vocabulary notebook for each word.
When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).
Vocabulary Notebooks can be made from ½ of a

composition book.



#### **Activity**

#### Raisins—Two Scoops Part II

#### Materials:

- Chart from yesterday
- Box of raisins (probably several—2 ounces for each student)

#### **Directions:**

- 1. Discuss with students that the advertisement says that there are "two scoops" of raisins in every box.
- 2. Talk about that instead of a scoop we are using the cup.
- 3. Have students measure two small cups of raisins and count them.
- 4. Is the number the same, higher, lower that yesterday's number?
- **5.** Decide if the advertisement is correct.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

#### Closing

#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### **Debrief**

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What month were you born in?

What special events happen in February?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Raisin Bran 2 Scoops
Focus:	Estimation

Materials:

White boards Crayolas

Raising Bran 2 ounce cups

Socks

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about addition? What do you know about subtraction?

How many fingers do you have on your right hand? How many fingers do you have on your left hand? How many fingers do you have altogether? Did you add or did you count? When you increase a number it is addition. How many fingers do you have on 2 hands. If you take the fingers on one hand away and hide them behind your back, how many fingers do you have showing? Did you count backwards? Did you subtract? Subtraction is what you do when you decrease a number.

Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing)

#### Content (the "Meat")

#### Problem of the Day

You are that aquarium to see the fish. There are 6 clown fish. 3 more clown fish swim into the aquarium. How many clown fish all together? Please draw a picture.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

2 1 \_ 1

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking

When possible, engage students in a "teach to learn" opportunity and have the



the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

Today you will introduce this activity and begin with the Fact Family of 1, 6 and 7. Have students write the entire Fact Family on the white board.

1 + 6 = 7

6 + 1 = 7

7 - 1 = 6

7 - 6 = 1

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 1, 6, and 7.

student become the teacher

#### Math Vocabulary

#### Word for Today: addition

Addition is the word that describes what you do when you put 2 or more groups of items together. For example if I have a group of 3 hearts and I have another group of 5 hearts, when I add them together I have a larger group of 8 hearts.

Have children complete the Vocabulary notebook.

#### Vocabulary Notebook Sample:

New Word	My Description
addition	Totaling two or more things together
Personal Connection	Drawing
I can add the number of cookies on the two plates.	3+2=5

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation)

Vocabulary Notebooks can be made from ½ of a

composition book

Students will complete this notebook for each vocabulary word that they are given.

#### **Activity**

### Raisin Bran—2 Scoops Materials:

- Raising Bran
- 2 ounce paper cups
- Post-Its
- Bowls
- Paper Towels

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center

#### Directions:

1. Show the children the box of Raising Bran and ask them how many raisins they think are in the box. Write each estimate on a Post-It. When all are done, organize the list from smallest



- to largest.
- 2. Divide students into pairs
- 3. Each pair comes up and puts "two scoops" (cups) of raisin bran in his/her bowl
- 4. Children then go back to their space and count the number of raisins in their sample
- 5. Write the amount on chart paper
- 6. Help children add the numbers
- 7. Check to see how close the estimates were.
- **8.** Eat the raisin bran

	Closing
	Review
Say:	
<ul> <li>Please recap what we did today.</li> </ul>	
<ul> <li>Did we achieve our objectives?</li> </ul>	
	Debrief
What did you like about what we did today in math?	
What would you like to do more of the next time we of	lo math?
What does it mean when we say we found an answe	r by addition?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Addends Beans and Cups 51
Focus:	Addition

Materials:

White boards pinto beans, pink beans, lima beans

Crayolas 2 ounce cups

Socks dice

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about addition? What do you know about subtraction?

Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing)

Ask student volunteers for a number sentence. Write it on the board and discuss the name of each of the numbers (addends/sums, or minuend, subtrahend, and difference), the operations signs (+ and -) and also the equals sign which can be written = in a horizontal problem, and \_\_\_\_\_\_ (the underline) in a vertical problem. Write the problems students give you in both a horizontal (5 + 4 = 9) and vertical manner

5

+4

9

#### Content (the "Meat")

#### Problem of the Day

John and Jorge share chocolate Hershey kisses. They have six Kisses. If they both get the same number, how many will each get? Draw a picture to show your answer.

#### **Fact Practice**

Fact Practice for 1<sup>st</sup> grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day.

Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say,

"If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1".

You should have them practice this conversation (exactly as it is written) with 3-5 other students

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking

When possible, engage



every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

Today you will introduce this activity and begin with the Fact Family of 4, 9 and 13. Have students write the entire Fact Family on the white board.

4 + 9 = 13

9 + 4 = 13

13 - 4 = 9

13 - 9 = 4

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 4, 9, 13

students in a "teach to learn" opportunity and have the student become the teacher

#### Math Vocabulary

#### Word for Today: addend

**Description:** Addend is the term we use to name the numbers in an addition problem that we are adding together. If we look at the math fact family for today, 4 + 9 = 13 and also 9 + 4 = 13, the numbers 4 and 9 are the addends. They are the two numbers that we are combining to equal 13. In a problem that looks like this:  $4 + \Box = 13$ , the box represents the missing addend, which in this case would be 9.

Have children complete the Vocabulary notebook.

#### Vocabulary Notebook Sample:

New Word	My Description
addend	addends are the numbers you add together in an addition problem
Personal Connection	Drawing
What are the addends in the number sentence 6 + 4 = 10?	6+4=10

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation)

Vocabulary Notebooks can be made from ½ of a composition book

Students will complete this notebook for each vocabulary word that they are given.

#### Activity

#### Beans and Cups

**Materials:** dry pinto beans, dry lima beans and dry pink beans, baggies (place some of each bean in the baggie—6-7 of each kind of bean), 2 6-sided dice.

#### Directions:

- 1. Divide students into pairs
- 2. Give each pair a baggie of beans and a pair of dice
- 3. Player #1 rolls both dice
- 4. Player uses one type of bean to represent one of the dice and another type of bean to

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center



- represent the number of the other dice
- 5. Player draws the different types of beans to represent the number sentence with the total or sum at the end.
- 6. Turn moves to Player #2 who follows the same procedure.
- 7. After each player has created 10 number sentences, the activity is over.

	Closing
	Review
Say:	
•	Please recap what we did today. Did we achieve our objectives?
	Debrief
What	did you like about what we did today in math?
What	would you like to do more of the next time we do math?
What	does it mean when we say we found an answer by addition?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them



Component:	Math
Grade Level:	First Grade
Lesson Title:	Fact Practice and Beans and Cups
Focus:	Addition

Materials:

White boards pinto beans, pink beans, lima beans

Crayolas 2 ounce cups

Socks dice

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about addition? What do you know about subtraction?

Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing)
Ask student volunteers for a number sentence. Write it on the board and discuss the name of each of the numbers
(addends/sums, or minuend, subtrahend, and difference), the operations signs (+ and -) and also the equals sign which
can be written = in a horizontal problem, and \_\_\_\_\_\_ (the underline) in a vertical problem. Write the problems students
give you in both a horizontal (6 + 5 = 11) and vertical manner

6

+5

11

#### Content (the "Meat")

#### Problem of the Day

Maria has 3 kittens. Her mother gives her 2 more kittens. When her dad comes home he brings her 3 more kittens. How many kittens does Maria have altogether? Draw a picture of your answer.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)

They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 4, 10, and 14. Have students write the entire Fact Family on the white board.

4 + 10 = 14

10 + 4 = 14

14 - 4 = 10

14 - 10 = 4

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 4, 10 and 14

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.

#### Math Vocabulary

#### Word for Today: addend

**Description:** Addend is the term we use to name the numbers in an addition problem that we are adding together. If we look at the math fact family for today, 4 + 10 = 14 and also 10 + 4 = 14, the numbers 4 and 10 are the addends. They are the two numbers that we are combining to equal 14. In a problem that looks like this:  $4 + \Box = 14$ , the box represents the missing addend, which in this case would be 10. Write several problems on the board. I some have missing addends, in others have missing sums. Have students complete the problems.

In your Vocabulary Notebook review the entry for the word "addend" with a friend and be sure that it captures your understanding of the word.

**Vocabulary Notebook Sample:** 

New Word	My Description	
addend	the numbers you add together to find a total or a sum	
Personal Connection	Drawing	
What is the sum of 9 + 2?	9 <u>+2</u> 11	

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can

be made from ½ of a composition book.

Students will complete this notebook for each vocabulary word that they are given.

# Activity Beans and Cups

**Materials:** dry pinto beans, dry lima beans and dry pink beans, baggies (place some of each bean in the baggie—6-7 of each kind of bean), 2 6-sided dice.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



#### Directions:

- 1. Review the game that students played yesterday.
- Have students share how to play the game.

3. Have students play the game with new partners today.			
	Closing		
	Review		
Say:			
<ul> <li>Please recap what we did today.</li> </ul>		ļ	
Did we achieve our objectives?		ļ	
	Debrief		
What did you like about what we did today in math?			
What would you like to do more of the next time we do math?			
What is a number?			
What is a letter?			
Are they the same?			

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Cylinder and Adding With Toothpicks
Focus:	Addition

Materials:

White boards decks of cards with face cards and jokers removed

toothpicks, cups Crayolas

Socks glue sticks 8" square construction paper

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about addition? What do you know about subtraction?

Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing) Ask student volunteers for a number sentence. Write it on the board and discuss the name of each of the numbers (addends/sums, or minuend, subtrahend, and difference), the operations signs (+ and -) and also the equals sign which can be written = in a horizontal problem, and \_\_\_\_\_ (the underline) in a vertical problem. Write the problems students give you in both a horizontal (17 - 8 = 9) and vertical manner

9

Content (the "Meat")	
Problem of the Day Look at the list of numbers below. Two of the numbers are missing. What do you think will	*Activity >> Teachable Moment(s) throughout
fill in the blanks correctly? How do you know?	During the lesson check in with students repeatedly.
10, 12,, 16,, 20, 22	Check in about what is happening and what they are
Fact Practice	thinking.
Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one	Take advantage of any teachable moments.
another in adding and subtracting. Fact practice will follow this pattern every day.  Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)  They will write the problem in four ways.	Stop the class and focus on a student's key learning or understanding. Ask open-

1 + 2 = 3

2 + 1 = 3

understanding. Ask openended questions to determine what the rest of



$$3 - 2 = 1$$

$$3 - 1 = 2$$

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 5, 6, and 11. Have students write the entire Fact Family on the white board.

5 + 6 = 11

6 + 5 = 11

11 - 5 = 6

11 - 6 = 5

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 5, 6, and 11

the group is thinking.
When possible, engage
students in a "teach to learn"
opportunity and have the
student become the teacher.

#### Math Vocabulary

#### Word for Today: cylinder

Cylinder is the term we use to describe something that looks like an oatmeal box. The base and top of a cylinder is a circle and the edges of the cylinder are shaped by the base and the top, creating a shape without corners and sharp edges coming together in a 90° angle. Cylinders do not have corners. Ask students to identify other cylinders (cans of food, ice cream cartons, drums, salt and pepper shakers, etc.) Talk with students about how to draw a cylinder, beginning with the circle that is flat for the top

Followed by the straight edges that are connected to a curving bottom which is really the only piece of the circle that you can see. Also, if you shade the cylinder on one side and leave the other side clear, it helps the look or the cylinder.

Complete an entry for coin in your Vocabulary Notebook.

**Vocabulary Notebook Sample:** 

New Word	My Description
cylinder	cans, glasses, trash cans
Personal Connection	Drawing
I drank the tea out of a cylinder.	

Students will complete this notebook for each vocabulary word that they are given.

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a

composition book.



# Activity Adding With Toothpicks

**Materials:** 8" construction paper (dark color), flat toothpicks, small cup, glue stick, crayons, deck of cards with face cards and jokers removed.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

#### Directions:

- 1. Review the game that students played yesterday.
- 2. Have students share how they did this activity yesterday.
- 3. Have students work with new partners today.

	Closing
	Review
Say:	
<ul> <li>Please recap what we did today.</li> </ul>	
<ul> <li>Did we achieve our objectives?</li> </ul>	
	Debrief
What did you like about what we did today in math?	
How can you use the information from today in school to	omorrow?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Adding With Toothpicks
Focus:	Addition

Materials:		
White boards	small cup	deck of cards without jokers and face cards
Crayolas	tooth picks	8" square construction paper (dark color)
Socks	glue sticks	

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

## Gain prior knowledge by asking students the following questions

What do you know about addition? What do you know about subtraction?

Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing) Ask student volunteers for a number sentence. Write it on the board and discuss the name of each of the numbers (addends/sums, or minuend, subtrahend, and difference), the operations signs (+ and -) and also the equals sign which can be written = in a horizontal problem, and \_\_\_\_\_\_ (the underline) in a vertical problem. Write the problems students give you in both a horizontal (13 - 6 = 7) and vertical manner

12

<u>-6</u>

7

#### Content (the "Meat") \*Activity > Teachable Problem of the Day Look at the two shapes below. How are they alike? Moment(s) *throughout* During the lesson check in with students repeatedly. Check in about what is happening and what they are thinking. Take advantage of any **Fact Practice** teachable moments. Fact Practice for 1st grade is looking at number families, so you are looking at both addition Stop the class and focus on a and subtraction. The key is for children to learn that numbers have a relationship with one student's key learning or another in adding and subtracting. Fact practice will follow this pattern every day. understanding. Ask open-Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) ended questions to They will write the problem in four ways. determine what the rest of 1 + 2 = 3the group is thinking. 2 + 1 = 3



$$3 - 2 = 1$$

$$3 - 1 = 2$$

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 5, 5, and 10 Have students write the entire Fact Family on the white board.

5 + 5 = 10

5 + 5 = 10

10 - 5 = 5

10 - 5 = 5

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 5, 5, and 10. Share with students that this fact is a double—the addends are the same.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.

### Math Vocabulary

#### Word for Today: cylinder

Cylinder is the term we use to describe something that looks like an oatmeal box. The base and top of a cylinder is a circle and the edges of the cylinder are shaped by the base and the top, creating a shape without corners and sharp edges coming together in a 90° angle. Cylinders do not have corners. Ask students to identify other cylinders (cans of food, ice cream cartons, drums, salt and pepper shakers, etc.)

Have children complete the Vocabulary notebook.

Vocabulary Notebook Sample:

New Word	My Description
cylinder	a glass, a can, a garbage can, a vase are all cylinders
Personal Connection	Drawing
I will drink the milk from a cylinder.	

Students will complete this notebook for each vocabulary word that they are given.

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a

composition book.



## Activity Adding With Toothpicks

**Materials:** 8" construction paper (dark color), flat toothpicks, small cup, glue stick, crayons, deck of cards with face cards and jokers removed.

#### Directions:

- 1. Group students in pairs.
- 2. Give each pair 2 pieces of construction paper, a cup of toothpicks, a glue stick and a deck of cards.
- 3. Player #1 draws two cards from the deck and using toothpicks creates a number sentence (4 + 5 = 9) if the player rolls a 4 and a 5.
- 4. Player #1 says the number sentence aloud.
- 5. Player #2 takes his/her turn, repeating the same procedure.
- 6. After each player has drawn 8 pairs or cards, when he/she draw the 9<sup>th</sup> set, he/she makes the problem and glues the toothpicks to the construction paper.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

## Closing

#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What is a cylinder?

Where can you see them in the world?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them (Aha!)



	N
Component:	Math
Grade Level:	First Grade
Lesson Title:	Marshmallow Shapes
Focus:	Geometry
Materials:	
White boards	small marshmallows
Crayolas	cups
Socks	8" construction paper square
	Opening
	State the objective
	g to learn some math vocabulary—words that we need to use when we talk about addition and
subtraction. We a	re also going to practice some of the math skills that we will need to be excellent at math.
	Gain prior knowledge by asking students the following questions
What do you know	about addition? What do you know about subtraction?
	action is really about understanding counting both forward (increasing) and backward (decreasing)
(addends/sums, or can be written = in	teers for a number sentence. Write it on the board and discuss the name of each of the numbers minuend, subtrahend, and difference), the operations signs ( $+$ and $-$ ) and also the equals sign which a horizontal problem, and (the underline) in a vertical problem. Write the problems students horizontal ( $17 - 8 = 9$ ) and vertical manner
	17
	<u>-8</u>

Content (the "Meat")	
Problem of the Day Look at the squares below. Which one is divided into equal parts? How do you know?	*Activity → Teachable Moment(s) throughout
	During the lesson check in with students repeatedly.
	Check in about what is happening and what they are thinking.
Fact Practice Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one	Take advantage of any teachable moments
another in adding and subtracting. Fact practice will follow this pattern every day.  Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)  They will write the problem in four ways. $1 + 2 = 3$ $2 + 1 = 3$ $3 - 2 - 1$	Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking



3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 5, 7, and 12. Have students write the entire Fact Family on the white board.

5 + 7 = 12

7 + 5 = 12

12 - 5 = 7

12 - 7 = 5

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 5, 7, and 12.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher

#### Math Vocabulary

#### Word for today: equal

Equal is the math term that means the same value. If something is equal, it may look different but the numbers represented are the same. 3 + 6 is the same value as 9 or 1 + 8, or 5 + 4 or 9 + 0, or 2 + 7, and then a lot of subtraction problems. The equal sign can be written horizontally like this =, and vertically it is a line like this \_\_\_\_\_. In math, when you have drawn the equal sign, you are saying what is written on one side with have the same value as what is written on the other side.

Have children complete the vocabulary notebook for the word equal.

Vocabulary Notebook Sample:

New Word	My Description
equal	things that are the same
Personal Connection	Drawing
I have two piggy banks with the same amount of money in them. They are equal.	(\$)(\$)

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation) Vocabulary Notebooks can be made from ½ of a composition book

## Activity Marshmallow Shapes

**Materials**: small marshmallows, flat toothpicks, small cups, 8" piece of construction paper for each student

**Directions:** 

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center



- 1. Group students in pairs
- 2. Give each pair of students a small cup of toothpicks and a second cup of marshmallows
- 3. Discuss how to make different shapes using marshmallows and toothpicks
- 4. Instruct students to make a square, a triangle, a rectangle, and a hexagon—stop sign.
- 5. Ask them to display the shape on the construction paper
- 6. When student has made each of the requested shapes, ask him/her to create a shape of his/her choosing.

### Closing

#### Review

### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of next time?

What are the different shapes that you made with the marshmallows and toothpicks

Where can you find those shapes in the world?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them (Aha!)



Component	Math
Grade Level:	First Grade
Lesson Title:	Equal Marshmallow Shapes
Focus:	Geometry

Materials:

White boards toothpicks and small cups
Crayolas small marshmallows

Socks pencils

#### **Opening**

## State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

## Gain prior knowledge by asking students the following questions

What do you know about addition? What do you know about subtraction?

Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing) Ask student volunteers for a number sentence. Write it on the board and discuss the name of each of the numbers (addends/sums, or minuend, subtrahend, and difference), the operations signs (+ and -) and also the equals sign which can be written = in a horizontal problem, and \_\_\_\_\_\_ (the underline) in a vertical problem. Write the problems students give you in both a horizontal (17 - 8 = 9) and vertical manner

17

-8

9

Content (the "Meat")	
Problem of the Day	*Activity → Teachable Moment(s) throughout
2 + 2 = 4 is a <b>double fact</b> . Write 3 more double facts.	During the lesson check in with students repeatedly.
Fact Practice Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one	Check in about what is happening and what they are thinking.
another in adding and subtracting. Fact practice will follow this pattern every day.  Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)	Take advantage of any teachable moments
They will write the problem in four ways. 1 + 2 = 3 2 + 1 = 3 3 - 2 = 1 3 - 1 = 2	Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of
After they have written the problem in all 4 ways they will find a partner and say,	the group is thinking



"If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher

**Today** you will introduce this activity and begin with the Fact Family of 5, 8 and 13. Have students write the entire Fact Family on the white board.

5 + 8 = 13

8 + 5 = 13

13 - 5 = 8

13 - 8 = 5

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 5, 8 and 13

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation)

Vocabulary Notebooks can be made from ½ of a composition book

## Math Vocabulary

## Word for today: equal

Equal is the math term that means the same value. If something is equal, it may look different but the numbers represented are the same. 3 + 6 is the same value as 9 or 1 + 8, or 5 + 4 or 9 + 0, or 2 + 7, and then a lot of subtraction problems. The equal sign can be written horizontally like this =, and vertically it is a line like this \_\_\_\_\_\_. In math, when you have drawn the equal sign, you are saying what is written on one side with have the same value as what is written on the other side. Have students provide you with number sentences that have equal values on both sides of the equals sign. Write problems both horizontally and vertically.

Create an entry in your Vocabulary Notebook for the word estimate.

Vocabulary Notebook Sample:

New Word	My Description
equal	means the same, two or more things are the same
Personal Connection	Drawing
9 is the same as 3 + 6. They are equal.	

## Activity

#### Marshmallow Shapes

Materials: small marshmallows, flat toothpicks, small cups, 8" piece of construction paper for each student

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it



#### Directions:

- 1. Review the activity that students did yesterday.
- 2. Have students share how to the activity was done.
- 3. Have students complete the activity with a new partner today.
- 4. Give students more time to explore the different shapes that they can make and then make a picture of those different shapes on the construction paper square.

in the "When Homework Is Complete" center

#### Closing

#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What are the different shapes that you made with the marshmallows and toothpicks

Where can you find those shapes in the world?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them (Aha!)



Component:	Math
Grade Level:	First Grade
Lesson Title:	Circle A Sum 3
Focus:	Addition

Materials:		
White boards	Circle A Sum #2 (laminate or place in sheet protector for future use	
Crayolas		
Socks		

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

### Gain prior knowledge by asking students the following questions

What do you know about subtracting? What do you know about addition?

In a Fact Family how does the arrangement of the numbers change when you subtract? How does it change when you add?

What does equals mean? How does the = sign connect the numbers of a Fact Family in a subtraction problem? In an addition problem?

### .Content (the "Meat")

#### Problem of the Day

There are nine girls and ten boys in Room 23. If there are 20 coat hooks in the room, are there enough hooks for everybody's coat?

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)

They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look

## \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 6, 6, and 12 (a double)

Have students write the entire Fact Family on the white board.

6 + 6 = 12

6 + 6 = 12

12 - 6 = 6

12 - 6 = 6

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 6, 6, and 12. Ask students to give you examples of other doubles. Ask students to tell how doubles are different than other fact families.

## Math Vocabulary

#### Word for Today: sum

Sum is the math term we use to describe the answer we get when we add numbers together. The sum is written on one side of an equals sign while on the other side will be written the numbers that were added or put together to arrive at the sum. A synonym for the word sum is total. Have students give you several problems and identify the sum by that word.

Have children review the entry in the Vocabulary notebook for the term sum. Have them share with a friend to be sure that they have captured the meaning.

**Vocabulary Notebook Sample:** 

New Word	My Description
sum	total in an addition problem
Personal Connection	Drawing
What is the sum of 5 + 3?	5+3=8

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

## Activity Circle A Sum

**Materials**: Circle A Sum Sheet #2 (attached to the lesson plan), crayolas **Directions**:

- 1. Review the game that students played yesterday.
- 2. Have students share how to play the game.
- 3. Have students play the game with new partners today.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



## Closing

#### Review

## Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

Give an example of how you will use what we did today in school tomorrow.

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them. (Aha!)



# Circle A Sum #2

7	1	3	2	8	4	4	6
3	2	5	1	3	4	0	2
2	0	1	6	6	7	5	3
1	3	4	1	2	1	1	4
2	0	1	6	6	7	5	3
1	3	0	2	4	7	5	6
4	6	4	2	1	0	3	8
3	2	2	4	0	3	5	2
3	2	1	8	4	0	5	2



Component:	Math
Grade Level: First Grade	
Lesson Title: Circle A Sum Practice	
Focus:	Addition

Materials:	
White boards	Circle A Sum Worksheet (laminated or in sheet protector so it can be used again
Crayolas	
Socks	

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

## Gain prior knowledge by asking students the following questions

What do you know about subtracting?

In a Fact Family how does the arrangement of the numbers change when you subtract?

What does equals mean? How does the = sign connect the numbers of a Fact Family in a subtraction problem.

#### Content (the "Meat")

#### Problem of the Day

Draw a picture that shows the number sentence written below:

## 10 - 4 = 6

#### **Fact Practice**

Fact Practice for 1<sup>st</sup> grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the

## \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



correct response.

**Today** you will introduce this activity and begin with the Fact Family of 5, 9 and 14 Have students write the entire Fact Family on the white board.

5 + 9 = 14

9 + 5 = 14

14 - 5 = 9

14 - 9 = 5

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 5, 9, and 14

#### Math Vocabulary

### Word for Today: sum

Sum is the math term we use to describe the answer we get when we add numbers together. The sum is written on one side of an equals sign while on the other side will be written the numbers that were added or put together to arrive at the sum. A synonym for the word sum is total.

Have children create an entry in the Vocabulary Notebook for the word sum.

**Vocabulary Notebook Sample:** 

New Word	My Description
sum	the answer when you have an addition problem
Personal Connection	Drawing
The sum of 9 + 8 is 17.	9+8=17

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation)

Vocabulary Notebooks can be made from ½ of a composition book.

## Activity Circle A Sum

Materials: Circle A Sum Sheet #1 (attached to the lesson plan), crayolas

#### Directions:

- 1. Group students in pairs.
- 2. Taking turns, first one student and then another circles numbers that will add up to 5, 7, or q
- 3. Game is over when all of the possible combinations are found.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



	Closing	
	Review	
Say:		
<ul> <li>Please recap what we did today.</li> </ul>		
<ul> <li>Did we achieve our objectives?</li> </ul>		
	Debrief	
What did you like about today's lesson?		
How can you use the information from today du	ring class tomorrow?	
What is one key learning you had today in math	?	

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them. (Aha!)



Circle A Sum #1

2	5	3	1	0	8	4	2
1	4	7	3	4	2	8	6
2	0	3	5	4	1	3	2
0	5	2	1	7	6	6	3
6	3	4	4	0	2	1	8
3	1	1	4	1	1	2	4
2	5	3	2	3	4	0	2
3	5	1	0	7	2	4	6
1	6	2	2	2	3	7	6



Component:	Math
Grade Level: First Grade	
Lesson Title: Math Blast Operations	
Focus:	Operations

Materials:	
White boards	Math Blast Game Board is in a second file. Laminate or put in sheet protector.
Crayolas	
Socks	

#### **Opening**

## State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

## Focus Student's Prior Knowledge

Give an example of an addition or a subtraction problem by writing it on the white board. Share this with a friend and explain, using math vocabulary, what you have written on the white board.

On the white board write an addition and/or a subtraction problem both vertically and horizontally. Tell your partner which sign represents equals.

#### Content (the "Meat")

#### Problem of the Day

Look at the problem written below. What number would you put in the  $\bigcirc$  to make the number sentence correct?

$$5 + \heartsuit = 7$$

#### **Fact Practice**

Fact Practice for 1<sup>st</sup> grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 6, 7 and 13 Have students write the entire Fact Family on the white board.

$$6 + 7 = 13$$

$$7 + 6 = 13$$

$$13 - 6 = 7$$

$$13 - 7 = 6$$

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 6, 7 and 13.

### Math Vocabulary

## Word for Today: difference

Difference is the math term we use to describe the answer you get when you have subtracted one number from another. It is smaller than the top number, the minuend, unless you are subtracting 0. The difference is identifying how the top number will be different once you have subtracted something. It is letting you know that there is different value.

Have children complete the Vocabulary notebook for the word "difference".

**Vocabulary Notebook Sample:** 

New Word	My Description
difference	The amount left after you have subtracted one number from another
Personal Connection	Drawing
The difference between 10 and 7 is three.	10-7=3

It is important to review academic math vocabulary often throughout the day.
Complete the Vocabulary notebook for each word.
When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).
Vocabulary Notebooks can be made from ½ of a composition book.

## Activity

#### Math Blast!

**Materials:** Math Blast Board (separate file), 3 dice for each pair of students, games tokens or colored paper to mark numbers.

#### Directions:

- 1. Group students in pairs.
- 2. Player #1 rolls all three dice and adding or subtracting finds a total that equals one of the uncovered numbers on the Math Blast Board.
- 3. Player #2 repeats the process.
- 4. Play is complete when all numbers are covered.

Example: Student rolls a 3, 4, and a 5. He/she could say 3 + 4 + 5 = 12. If 12 is covered, he/she could say 4 - 3 + 5 = 6. If 6 is also covered, he/she could say 5 - 4 + 3 = 4.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



	Closing		
	Review		
Say:			
<ul><li>Please recap what we did today.</li><li>Did we achieve our objectives?</li></ul>			
	Debrief		
What did you like about what we did today in math?			
What is a cube?			
How many sides does a cube have?			

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	Math Blast Difference
Focus:	Operations

Materials:		
White boards	Math Blast Game Board in separate file	
Crayolas		
Socks		

#### **Opening**

## State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

## Gain prior knowledge by asking students the following questions

Give an example of an addition or a subtraction problem by writing it on the white board. Share this with a friend and explain, using math vocabulary, what you have written on the white board.

On the white board write an addition and/or a subtraction problem both vertically and horizontally. Tell your partner which sign represents equals.

#### Content (the "Meat")

#### Problem of the Day

There are 8 pairs of shoes in the closet. How many shoes are there altogether? Draw a picture to show your answer.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



**Today** you will introduce this activity and begin with the Fact Family of 6, 8, and 14. Have students write the entire Fact Family on the white board.

6 + 8 = 14

8 + 6 = 14

14 - 6 = 8

14 - 8 = 6

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 6, 8, and 14.

#### Math Vocabulary

### Word for today: difference

Difference is the math term we use to describe the answer you get when you have subtracted one number from another. It is smaller than the top number, the minuend, unless you are subtracting 0. The difference is identifying how the top number will be different once you have subtracted something. It is letting you know that there is different value. Write three subtraction problems on your white board. Circle the difference in each problem.

Review the entry in your Vocabulary Notebook for "difference" Does it demonstrate your understanding of the word "difference"? Share your thoughts with a friend.

## **Vocabulary Notebook Sample:**

New Word	My Description	
difference	What is left over. The answer in a subtraction problem.	
Personal Connection	Drawing	
The difference between 8 – 5 is three.	8 - 3 = 5 Minuend Subtrahend Difference	

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation). Vocabulary Notebooks can be made from ½ of a composition book.

## Activity Math Blast!

**Materials:** Math Blast Board (separate file), 3 dice for each pair of students, games tokens or colored paper to mark numbers.

#### Directions:

- 1. Review the game that students played yesterday.
- 2. Have students share how to play the game.
- 3. Have students play the game with new partners today.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



	Closing
	Review
Say:	
<ul> <li>Please recap what we did today.</li> </ul>	
<ul> <li>Did we achieve our objectives?</li> </ul>	
	Debrief
What did you like about what we did today in math?	
What do you know about a calendar?	
What are the names of the month?	
What are the names of the days of the week?	

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component:	Math
Grade Level:	First Grade
Lesson Title:	BAMCM Review
Focus:	Review

Materials:

White boards

Materials for games played the past 10 days

Crayolas Socks

### **Opening**

## State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

## Gain prior knowledge by asking students the following questions

What do you like best about working with numbers?

What does it mean to estimate?

What is a coin?

What is a number sentence?

#### Content (the "Meat")

#### Problem of the Day

Dad barbecued 12 hamburgers. Jill ate 2 and Martin ate 3. How many hamburgers are there left for other people to eat?

#### **Fact Practice**

Fact Practice for 1<sup>st</sup> grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



correct response.

**Today** you will introduce this activity and begin with the Fact Family of 6, 9 and 15.

Have students write the entire Fact Family on the white board.

6 + 9 = 15

9 + 6 = 15

15 - 6 = 9

15 - 9 = 6

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 6, 9, and 15.

**Activity** 

Today students will select the game from the week that they most want to play. Pairs can select different games. Game choices are:

Beans and Cups

Adding With Toothpicks

Marshmallow Shapes

Circle A Sum Sheet #1 or #2

Math Blast!

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

	Closing	
	Review	
Say:		
<ul> <li>Please recap what we did today.</li> </ul>		
<ul><li>Did we achieve our objectives?</li></ul>		
	Debrief	
Which of the games did you enjoy playing the most?		
What about this game is fun for you?		

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component	Math
Grade Level:	First Grade
Lesson Title:	Fun Facts
Focus:	Math

Materials:	
White boards	
Crayolas	
Socks	

#### **Opening**

## State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

### Gain prior knowledge by asking students the following questions

Give an example of an addition or a subtraction problem by writing it on the white board. Share this with a friend and explain, using math vocabulary, what you have written on the white board.

On the white board write an addition and/or a subtraction problem both vertically and horizontally. Tell your partner which sign represents equals.

## Content (the "Meat")

### Problem of the Day

Count the happy faces. How did you solve this problem?

00 00 00 00 00 00 00

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

## \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



**Today** you will introduce this activity and begin with the Fact Family of 10, 10, and 20. Have students write the entire Fact Family on the white board.

10 + 10 = 20

10 + 10 = 20

20 - 10 = 10

20 - 10 = 10

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 10, 10 and 20.

## Math Vocabulary

### Word for today: fact family

Description: We have been doing a lot of work with fact families. Fact families are 3 numbers that go together in addition and subtraction problems. It is important to remember which numbers have which relationships so you can easily do math problems. A fact family would be 3, 2, and 5; or 6, 7, and 13, as well as many others.

#### Vocabulary Notebook Sample:

New Word	My Description	
fact family	3 numbers that are related in addition and subtraction	
Personal Connection	Drawing	
I know that 3, 4, and 7 are in a fact family.	3 + 4 = 7 $4 + 3 = 7$ $7 - 3 = 4$	
	7 – 4 = 3	

It is important to review academic math vocabulary often throughout the day.
Complete the Vocabulary notebook for each word.
When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).
Vocabulary Notebooks can be made from ½ of a composition book.

#### **Activity**

#### Fun Facts!

This activity was worked on yesterday. Ask students what they learned about playing the game that is helpful. Have students share strategies. Ask students to work in a different pairing today.

#### Fun Facts!

This activity will give students practice solving problems and also creating a message **Directions**:

- 1. Divide students into pairs or trios.
- 2. Give each pair or trio a deck Fun Fact? Cards and a Game Board.
- 3. Shuffle cards and place them face down next to the game board.
- 4. Player 1 draws a card completes the problem, locates the answer on the game board and writes the letter from his/her card under the answer.
- 5. Player 2 repeats the process.
- 6. When all cards are turned and answers found, then students will read the Fun Fact!

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



	Closing	
	Review	
Say:		
<ul><li>Please recap what we did today.</li><li>Did we achieve our objectives?</li></ul>		
	Debrief	
What did you like about what we did today in math?		
What do you know about a calendar?		
What are the names of the month?		
What are the names of the days of the week?		

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them. (Aha!)



## **Fun Facts**

59	18	47	38
<u>+8</u>	<u>+8</u>	<u>+6</u>	<u>+7</u>
26	63	23	46
+6	+7	+7	+9
65	47	54	62
<u>+9</u>	<u>+7</u>	<u>+6</u>	<u>+9</u>
88	58	22	36
<u>+2</u>	<u>+6</u>	<u>+9</u>	<u>+7</u>



67	26	53	45
a	t	е	t
32	70	30	55
h	е	W	h
74	54	60	71
0		е	t
90	64	31	43
h	į	n	g

Answer Card:

## What did the boy say when he ate a whole cake?

I can't	believe I									
		6	7 26	53	45	32	70			
										_!
30	55	74	54	60	71	90	64	31	43	_



Component	Math
Grade Level:	First Grade
Lesson Title:	Least and Fun Facts
Focus:	Regrouping—Addition

Materials:	
White boards	Fun Fact Game Board, Cards, and Answer Card
Crayolas	
Socks	

#### **Opening**

## State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

### Focus Student's Prior Knowledge

Give an example of an addition or a subtraction problem by writing it on the white board. Share this with a friend and explain, using math vocabulary, what you have written on the white board.

On the white board write an addition and/or a subtraction problem both vertically and horizontally. Tell your partner which sign represents equals.

Content	(the	"Meat"
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### Problem of the Day

Look at the following number sentences. Tell which one does not belong to the family.

3	=	2	=	5
_		_		_

$$5 - 3 = 2$$

$$2 + 3 = 5$$

$$5 - 2 = 3$$

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)

They will write the problem in four ways.

$$1 + 2 = 3$$

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 9, 10, and 19 Have students write the entire Fact Family on the white board.

$$9 + 10 = 19$$

10 + 9 = 19

19 - 9 = 10

19 - 10 = 9

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 9, 10, and 19.

#### Math Vocabulary

#### Word for Today: least

Least is a term that we use to describe a numeral that has a value that is less than another numeral. For example 7 is less than 9. So if you were asked "Which number is the least, 7 or 9?" the answer would be 7 because it represents the least value. We can also show least by using the less than symbol <.

Have children complete the Vocabulary notebook for the word "least".

Vocabulary Notebook Sample:

New Word	My Description	
least	the smallest number when you are looking at two or more numbers	
Personal Connection	Drawing	
Which number is least, 9 or 3?	7<10	

It is important to review academic math vocabulary often throughout the day.
Complete the Vocabulary notebook for each word.
When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).
Vocabulary Notebooks can be made from ½ of a

composition book.

## Activity

#### Fun Facts!

This activity will give students practice solving problems and also creating a message. **Directions:** 

- 1. Divide students into pairs or trios.
- 2. Give each pair or trio a deck Fun Fact? cards and a Game Board.
- 3. Shuffle cards and place them face down next to the game board.
- 4. Player 1 draws a card completes the problem, locates the answer on the game board and writes the letter from his/her card under the answer.
- 5. Player 2 repeats the process.
- 6. When all cards are turned and answers found, then students will read the Fun Fact!

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



	Closing
	Review
Say:	
<ul> <li>Please recap what we did today.</li> </ul>	
<ul> <li>Did we achieve our objectives?</li> </ul>	
	Debrief
What did you like about what we did today in math?	
What is a cube?	
How many sides does a cube have?	

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them. (Aha!)



## **Fun Facts**

59	18	47	38
<u>+8</u>	<u>+8</u>	<u>+6</u>	<u>+7</u>
26	63	23	46
<u>+6</u>	<u>+7</u>	<u>+7</u>	<u>+9</u>
65	47	54	62
<u>+9</u>	<u>+7</u>	<u>+6</u>	<u>+9</u>
88	58	22	36
<u>+2</u>	<u>+6</u>	<u>+9</u>	<u>+7</u>



67	26	53	45
a	t	е	t
32	70	30	55
h	е	W	h
74	54	60	71
0		е	t
90	64	31	43
h	į	n	g

Answer Card:

# What did the boy say when he ate a whole cake?

I can't	believe I									
		6	7 26	53	45	32	70			
										!
30	55	74	54	60	71	90	64	31	43	_



Component	Math
Grade Level:	First Grade
Lesson Title:	Taking the Prize
Focus:	Addition and Subtraction

Materials:

White boards decks of cards with face cards and jokers removed

Crayolas Taking the Prize

Socks Beans or other game tokens

### **Opening**

## State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

## Gain prior knowledge by asking students the following questions

What do you know about addition? What do you know about subtraction?

Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing) Ask student volunteers for a number sentence. Write it on the board and discuss the name of each of the numbers (addends/sums, or minuend, subtrahend, and difference), the operations signs (+ and -) and also the equals sign which can be written = in a horizontal problem, and \_\_\_\_\_\_ (the underline) in a vertical problem. Write the problems students give you in both a horizontal (17 - 8 = 9) and vertical manner

17

<u>-8</u>

C

### Content (the "Meat")

### Problem of the Day

You have two nickels. Do you have enough money to buy a piece of candy that costs 10¢? Explain your answer.

## **Fact Practice**

Fact Practice for 1<sup>st</sup> grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

y will write the probit

1 + 2 = 3

2 + 1 = 3

3 - 2 = 13 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say,

"If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1".

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 7, 8 and 15. Have students write the entire Fact Family on the white board.

7 + 8 = 15

8 + 7 = 15

15 - 7 = 8

15 - 8 = 7

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 7, 8 and 15.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.

## Math Vocabulary

### Word for Today: ones

Description: Ones is a term we use to describe place value. We only have 10 numerals: 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9. We can arrange these digits in a variety of ways and the "place" that the digit is in determines its value. For example in the number 2, we know that we would have on 2 items. However, in the numberal 24, we know that the 2 = 20, that's because it is in the 10's place, and we have 4 ones.

Complete an entry for coin in your Vocabulary Notebook.

**Vocabulary Notebook Sample:** 

New Word	My Description
ones	how you count when you say 1, 2, 3, 4, and so on; ones place captures this count
Personal Connection	Drawing
What number is in the ones place in this number $64\underline{7}$ ?	647

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

Students will complete this notebook for each vocabulary word that they are given.

# Activity Taking the Prize

This activity was worked on yesterday. Ask students what they learned about playing the game that is helpful. Have students share strategies. Ask students to work in a different pairing today.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

# Taking the Prize!



Students in 1<sup>st</sup> grade need to practice addition and subtraction facts to automaticity. We have been working on Fact Families. This activity will give students more practice time.

## Taking the Prize

### Directions:

- 1. Divide students into pairs.
- 2. Give each pair a Taking the Prize Game Board, Taking the Prize Game cards, and game tokens (beans, markers, etc. for each student).
- 3. Shuffle the cards and place them face down beside the game board.
- 4. Player 1 takes the top card, finds the sum or difference, shares the problem with the other player and if the answer is correct then he/she places a game token on that number on the game board.
- 5. If player draws a subtraction problem, he/she may choose to move forward or move backward that number of spaces (It could be to the players' advantage to move backward if he/she is stuck toward the end of the game).
- 6. First player to land on the "Finish" space wins.

	Closing
	Review
Say:	
<ul> <li>Please recap what we did today.</li> </ul>	
Did we achieve our objectives?	
	Debrief
What did you like about what we did today in math?	
How can you use the information from today in school to	morrow?

### Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them. (Aha!)



# Taking The Prize

2	1	6	7	4	7
					2
7	4	2	6	8	1
9					
6	5	2	8	1	4
					2
8	7	2	5	3	6



3	12	1	5
+3	<u>-9</u>	<u>+4</u>	<u>+0</u>
7	2	4	11
<u>-5</u>	<u>+5</u>	<u>+4</u>	<u>-9</u>
2	9	6	10
+2	<u>-8</u>	<u>+2</u>	<u>-8</u>
2	0	6	7
<u>+3</u>	<u>+6</u>	<u>+3</u>	<u>-6</u>
3	5	9	12
+5	<u>+1</u>	<u>-7</u>	<u>-8</u>



6	2	3	7
<u>+1</u>	+0	<u>+4</u>	<u>-3</u>
4	4	1	6
<u>+3</u>	<u>+2</u>	<u>+0</u>	<u>-4</u>



Component	Math
Grade Level:	First Grade
Lesson Title:	Taking the Prize Game
Focus:	Addition and Subtraction

Materials:

White boards Taking the Prize Game Board and Cards

Crayolas Beans or other game tokens

Socks

### **Opening**

## State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

# Gain prior knowledge by asking students the following questions

What do you know about addition? What do you know about subtraction?

Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing) Ask student volunteers for a number sentence. Write it on the board and discuss the name of each of the numbers (addends/sums, or minuend, subtrahend, and difference), the operations signs (+ and -) and also the equals sign which can be written = in a horizontal problem, and \_\_\_\_\_\_ (the underline) in a vertical problem. Write the problems students give you in both a horizontal (13 - 6 = 7) and vertical manner

13

-6

7

## Content (the "Meat")

### Problem of the Day

I am a shape which has three corners. What am I?

### **Fact Practice**

Fact Practice for 1<sup>st</sup> grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 7, 7, and 14. Have students write the entire Fact Family on the white board.

7 + 7 = 14

7 + 7 = 14

14 - 7 = 7

14 - 7 = 7

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 7, 7, and 14. Share with students that this fact is a double—the addends are the same.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.

### Math Vocabulary

### Word for Today: penny

Practice this Penny Chant with the students until they can say it on their own. Then have them draw 5 pennies.

## **Penny Chant**

Penny, penny, Easily spent Copper brown

And worth one cent

Have children complete the Vocabulary notebook.

Vocabulary Notebook Sample:

New Word	My Description
penny	U.S. coin that is valued at 1 cent
Personal Connection	Drawing
I had only one penny left after I paid for the candy bar.	D350

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notabook for each word

notebook for each word.

When possible, have

students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

Students will complete this notebook for each vocabulary word that they are given.

### Activity

### Taking the Prize!

Students in 1st grade need to practice addition and subtraction facts to automaticity. We have been working on Fact Families. This activity will give students more practice time.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it



# Taking the Prize

# Directions:

- 1. Divide students into pairs.
- 2. Give each pair a Taking the Prize Game Board, Taking the Prize Game cards, and game tokens (beans, markers, etc. for each student).
- 3. Shuffle the cards and place them face down beside the game board.
- 4. Player 1 takes the top card, finds the sum or difference, shares the problem with the other player and if the answer is correct then he/she places a game token on that number on the game board.
- 5. If player draws a subtraction problem, he/she may choose to move forward or move backward that number of spaces (It could be to the players advantage to move backward if he/she is stuck toward the end of the game).
- 6. First player to land on the "Finish" space wins.

in the "When Homework Is Complete" center.

# Closing

#### Review

## Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What is a cylinder?

Where can you see them in the world?

### Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them. (Aha!)



# Taking The Prize

2	1	6	7	4	7
					2
7	4	2	6	8	1
9					
6	5	2	8	1	4
					2
8	7	2	5	3	6



3	12	1	5
+3	<u>-9</u>	<u>+4</u>	<u>+0</u>
7	2	4	11
<u>-5</u>	<u>+5</u>	<u>+4</u>	<u>-9</u>
2	9	6	10
+2	<u>-8</u>	<u>+2</u>	<u>-8</u>
2	0	6	7
<u>+3</u>	<u>+6</u>	<u>+3</u>	<u>-6</u>
3	5	9	12
+5	<u>+1</u>	<u>-7</u>	<u>-8</u>



6	2	3	7
<u>+1</u>	+0	<u>+4</u>	<u>-3</u>
4	4	1	6
<u>+3</u>	<u>+2</u>	<u>+0</u>	<u>-4</u>



Component	Math
Grade Level:	First Grade
Lesson Title:	Nickel Chant and Say What
Focus:	Addition and Subtraction

Materials:	
White boards	Say What Game Board, Cards, and Answer Card
Crayolas	
Socks	

### **Opening**

## State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

# Gain prior knowledge by asking students the following questions

What do you know about subtracting? What do you know about addition?

What are the common coins used in the United States?

What does equals mean? How does the word equal apply when you are writing words by code? Can you give an example of a code?

### Content (the "Meat")

# Problem of the Day

A cat has a mitten on each paw. It has 3 bells tied to its tail. Does that cat have more mittens or bells? How do you know?

#### **Fact Practice**

Fact Practice for 1<sup>st</sup> grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 9, 9, and 18 (a double)

Have students write the entire Fact Family on the white board.

9 + 9 = 18

9 + 9 = 18

18 - 9 = 9

18 - 9 = 9

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 9, 9, and 18. Ask students to give you examples of other doubles. Ask students to tell how doubles are different than other fact families.

## Math Vocabulary

### Word for Today: nickel

Practice this Nickel Chant with the students. Then have them draw 5 nickels (this equals a quarter—count by 5's)

### Nickel Chant

Nickel, nickel Thick and fat You're worth five cents I know that!

Vocabulary Notebook Sample:

New Word	My Description	
nickel	A coin worth 5 pennies	
Personal Connection	Drawing	
I have a nickel in my pocket.		
Λot	ivitv	

It is important to review academic math vocabulary often throughout the day.
Complete the Vocabulary notebook for each word.
When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

# Activity

# Say What? (Like a riddle)

This activity was worked on yesterday. Ask students what they learned about playing the game that is helpful. Have students share strategies. Ask students to work in a different pairing today.

Say What?

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



This activity will give students practice solving problems and also creating a message

# Say What?

## **Directions:**

- 1. Divide students into pairs or trios.
- 2. Give each pair or trio a deck of Say What? cards and a Game Board.
- 3. Shuffle cards and place them face down next to the game board.
- 4. Player 1 draws a card completes the problem, locates the answer on the game board and writes the letter from his/her card under the answer.
- 5. Player 2 repeats the process.
- 6. When all cards are turned and answers found, then students will read the Say What message.

### Review

## Say:

- Please recap what we did today.
- Did we achieve our objectives?

### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

Give an example of how you will use what we did today in school tomorrow.

### Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



# Say What?

Н	U	M	Р	Т	Υ
3	5	7	9	11	13
D	S	Α	0	N	L
2	1	4	6	8	10
W					
12					

7	1	5	2
<u>-6</u>	<u>+1</u>	<u>-2</u>	+2
8	4	4	12
- <u>3</u>	<u>+2</u>	<u>+3</u>	<u>-4</u>
3	5	7	4
<u>+6</u>	<u>+5</u>	<u>+4</u>	<u>+8</u>
7 <u>+6</u>			

Answer Card:

3	5	7	9	11	13
2	5	7	9	11	13
1	4	11		6	8
12	4	10	10		



Component	Math
Grade Level:	First Grade
Lesson Title:	Quarter Chant and Say What
Focus:	Addition and Subtraction

Materials:	
White boards	
Crayolas	
Socks	

### **Opening**

# State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

# Gain prior knowledge by asking students the following questions

What do you know about adding? What do you know about subtracting?

In a Fact Family how does the arrangement of the numbers change when you subtract?

What does equals mean? How does the = sign connect the numbers of a Fact Family in a subtraction problem?

## Content (the "Meat")

## Problem of the Day

Is it possible or impossible for there to be green dogs on the street tomorrow? Tell how you know?

#### **Fact Practice**

Fact Practice for 1<sup>st</sup> grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



correct response.

**Today** you will introduce this activity and begin with the Fact Family of 8, 9 and 17 Have students write the entire Fact Family on the white board.

8 + 9 = 17

9 + 8 = 17

17 - 8 = 9

17 - 9 = 8

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 8, 9, and 17.

## Math Vocabulary

Word for Today: quarter

Practice this Quarter Chant with the students. Then have students draw four quarters which is worth \$1.00

**Quarter Chant** 

Quarter, quarter Big and bold

You're worth twenty-five

I am told.

Have children create an entry in the Vocabulary Notebook for the word quarter.

Vocabulary Notebook Sample:

New Word	My Description
quarter	An American coin worth 25 cents
Personal Connection	Drawing
I was given a quarter when I lost my tooth.	LIBERTY DOLLAR

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

# Activity Say What? (Like a riddle)

This activity will give students practice solving problems and also creating a message.

# Say What?

### Directions:

- 1. Divide students into pairs or trios.
- 2. Give each pair or trio a deck of Say What? cards, Game Board and Answer Card.
- 3. Shuffle cards and place them face down next to the game board.
- 4. Player 1 draws a card completes the problem, locates the answer on the game board and writes the letter from his/her card on the Answer Card above the number.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



- 5. Player 2 repeats the process.
- 6. When all cards are turned and answers found, then students will read the Say What message.

	Closing	
	Review	
Say:		
<ul> <li>Please recap what we did today.</li> </ul>		
<ul> <li>Did we achieve our objectives?</li> </ul>		
	Debrief	
What did you like about today's lesson?		

# Reflection (Confirm, Tweak, Aha!)

What is one key learning you had today in math?

1. Ask students to think about what they did today in math.

How can you use the information from today during class tomorrow?

- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



# Say What?

Н	U	M	Р	Т	Υ
3	5	7	9	11	13
D	S	Α	0	N	L
2	1	4	6	8	10
W					
12					

7	1	5	2
<u>-6</u>	<u>+1</u>	<u>-2</u>	+2
8	4	4	12
- <u>3</u>	<u>+2</u>	<u>+3</u>	<u>-4</u>
3	5	7	4
<u>+6</u>	<u>+5</u>	<u>+4</u>	<u>+8</u>
7 <u>+6</u>			

Answer Card:

3	5	7	9	11	13
2	5	7	9	11	13
1	4	11		6	8
12	4	10	10		



Component	Math
Grade Level:	First Grade
Lesson Title:	Coins and Fantastic Fun
Focus:	Subtraction

Materials:

White boards pinto beans, pink beans, lima beans

Crayolas Fantastic Fun Game Board

Socks

### **Opening**

## State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

## Gain prior knowledge by asking students the following questions

What do you know about addition? What do you know about subtraction?

Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing)
Ask student volunteers for a number sentence. Write it on the board and discuss the name of each of the numbers
(addends/sums, or minuend, subtrahend, and difference), the operations signs (+ and -) and also the equals sign which
can be written = in a horizontal problem, and \_\_\_\_\_\_ (the underline) in a vertical problem. Write the problems students
give you in both a horizontal (6 + 5 = 11) and vertical manner

6

+5

11

### Content (the "Meat")

### Problem of the Day

If you have 4 cookies and you want to share them with your best friend so you each have the same number, how many will you each have?

### **Fact Practice**

Fact Practice for 1<sup>st</sup> grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say,

"If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1".

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 6, 9, and 15. Have students write the entire Fact Family on the white board.

6 + 9 = 15

9 + 6 = 15

15 - 6 = 9

15 - 9 = 6

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 6, 9 and 15.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.

## Math Vocabulary

### Word for Today: coins

**Description:** Coins is a term that we use to describe all of the different metal money that there is, including pennies, nickels, dimes, quarters, half dollars, and silver dollars. All of these are coins rather than paper money. Almost every money system in the world has a combination of coins and paper money.

In your Vocabulary Notebook create the entry for the word "coins" and with a friend review and be sure that it captures your understanding of the word.

**Vocabulary Notebook Sample:** 

New Word	My Description
coins	U.S. coins are pennies, nickels, dimes, and quarters
Personal Connection	Drawing
I have five coins, 2 quarters, 1 nickel, 1 dime, and 1 penny.	

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have

students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

Students will complete this notebook for each vocabulary word that they are given.

# Activity Fantastic Fun!

This activity was worked on yesterday. Ask students what they learned about playing the game that is helpful. Have students share strategies. Ask students to work in a different pairing today.

### Fantastic Fun!

Students in 1<sup>st</sup> grade need to practice addition and subtraction facts to automaticity. We have been working on Fact Families. This activity will give students more practice time.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



### **Directions:**

- 1. Divide students into pairs.
- 2. Give each pair a set of Fantastic Fun cards, a Fantastic Fun Game Board, and game tokens (beans, markers, etc.) for each student.
- 3. Shuffle the cards and place them face down by the game board.
- 4. Player 1 takes the top card, finds the difference, shares the problem with the other player and if the answer is correct, then he/she places a game token on that number on the game board.
- 5. Player 2 repeats the same process.
- 6. Game is over when all of the cards have been drawn.
- 1. Winner is the player with the most markers.

	Closing

### Review

## Say:

- Please recap what we did today.
- Did we achieve our objectives?

### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What are the names of the coins we use?

How many pennies are there in a dime?

### Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them. (Aha!)



# Fantastic Fun!

8	4	5	4	5	7
					4
6	8	6	5	3	9
9					
11	7	9	9	11	7
					6
9	13	8	10	8	9



18	18	17	17
<u>-9</u>	<u>-5</u>	<u>-9</u>	<u>-7</u>
16	16	15	15
<u>-7</u>	<u>-5</u>	<u>-8</u>	<u>-9</u>
15	14	14	13
<u>-6</u>	<u>-3</u>	<u>-7</u>	<u>-4</u>
13	13	13	12
<u>-5</u>	<u>-7</u>	<u>-8</u>	<u>-9</u>
12	12	11	11
<u>-6</u>	<u>-8</u>	<u>-4</u>	<u>-6</u>



13	12	11	15
<u>-9</u>	<u>-7</u>	<u>-7</u>	<u>-7</u>
16	17	15	20
<u>-8</u>	<u>-8</u>	<u>-7</u>	<u>-10</u>



Component	Math
Grade Level:	First Grade
Lesson Title:	Round 'Em Targets
Focus:	Rounding Numbers

Materials:		
White boards	Round 'Em Game Board and Cards	
Crayolas		
Socks		

### **Opening**

## State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

## Gain prior knowledge by asking students the following questions

What do you know about rounding number?

When you count you can round a number off to the nearest 10. For example if you have 8 items you can round this off and say, "I have about 10 items." If you had 17 items, you can round off and say, "I have about 20 items." However is you have only 13 items, you would want to round off to a lower number and say, "I have about 10 items."

Draw 10 items on the board. Circle the 5<sup>th</sup> item. Share with students that everything lower than the circle goes down, and beginning with the circled number and up, and the number goes up. Practice several of these with students.

# Content (the "Meat")

# Problem of the Day

To count from 71 to 74 would you count forward 3 or would you count backward 3? How do you know?

### **Fact Practice**

Fact Practice for 1<sup>st</sup> grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 8, 8 and 16. Have students write the entire Fact Family on the white board.

8 + 8 = 16

8 + 8 = 16

16 - 8 = 8

16 - 8 = 8

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 8, 8, and 16.

### Math Vocabulary

### Word for today: tens

**Description**: Tens is a term we use to describe a place where a numeral can be that values the numeral at 10. When we count: 10, 20, 30, 40, 50, 60, 70, 80, and 90, we have the numerals in the 10s place (except of course the 0). By being in the 10s place we understand that it is more than ones. When you think of money and dime or 10¢ is the same as 10 pennies.

Create an entry in your Vocabulary Notebook for the word tens.

Vocabulary Notebook Sample:

New Word	My Description
tens	Counting by numbers that are 10 apart
Personal Connection	Drawing
I can count by 10s to 100.	10 20, 30, 40, 50, 60

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can

be made from ½ of a composition book.

# Activity Round 'Em Targets

This activity was worked on yesterday. Ask students what they learned about playing the game that is helpful. Have students share strategies. Ask students to work in a different pairing today.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

# Round 'Em Targets

It is important that children learn about rounding numbers, especially if they are going to do effective mental math. The rules for rounding are simple: if the number is or ends in 0, 1, 2, 3, or 4, the number round down; and if the number is 5, 6, 7, 8, or 9, then the number is rounded up to the next ten.

# Round 'Em Targets



### Directions:

- 1. Divide students into pairs.
- 2. Give each group a Round 'Em Target Cards and Game Board.
- 3. Shuffle the cards and place them face down next to the game board.
- 4. Player 1 draws a card and determines if he/she should round the number up or down.
- 5. Once the decision has been made, he/she places the card in the column on the Game Board that indicates the number that the card was rounded to.

**Example:** the player draws a card that has a 43 on it. The rule would require that the student round down to "40", so he/she would place the card in the column labeled "40"

- 6. Player 2 then takes his/her turn.
- 7. Game is over when all cards have been rounded and placed in columns.

Closing		
Review		
Say:		
Please recap what we did today.		
Did we achieve our objectives?		
Debrief		
What did you like about what we did today in math?		
What would you like to do more of the next time we do math?		
What is easy about rounding numbers? What is difficult?		

### Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



# Round 'Em Targets

20	30	40	50	60



23	27	29	21	25
34	36	38	31	33
43	49	47	42	48
53	57	59	51	54
17	22	19	18	24
32	33	37	39	35
42	46	41	44	45
52	56	61	64	56



Component	Math
Grade Level:	First Grade
Lesson Title:	Dime Chant and Round 'Em Target
Focus:	Rounding Numbers

Materials:	
White boards	
Crayolas	
Socks	

### **Opening**

# State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math. We are going to work on rounding numbers.

# Gain prior knowledge by asking students the following questions

What do you know about addition? What do you know about subtraction?

Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing) When we round numbers we either move forward to a number that is slightly more or we move backward to a number that is slightly less. Draw a number line on the board showing the numbers 1-10. Circle the 5. Explain that everything below the 5 goes down and everything 5 and up, goes up. Ask when it would make sense to do this. (Number large)

### Content (the "Meat")

### Problem of the Day

Which of these boxes has the fewest circles?

<b>A A</b> •• <b>A</b> •	•••• 🛦 🛦
• 🛦 🛦 🛦 •	

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 7, 9, and 16. Have students write the entire Fact Family on the white board.

7 + 9 = 16

9 = 7 = 16

16 - 7 = 9

16 - 9 = 7

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 7, 9 and 16.

## Math Vocabulary

## Word for today: dime

Practice this Dime Chant with the students. Then have students draw 10 dimes (count by 10s to 100 or \$1.00)

#### **Dime Chant**

Dime, dime

Little and thin

**I** remember

You're worth ten.

Have children complete the vocabulary notebook for the word equal.

Vocabulary Notebook Sample:

New Word	My Description
dime	A dime has a value of 10 cents or 10 pennies
Personal Connection	Drawing
I have a dime in my pocket.	23 0005 201 920051 2 005

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation). Vocabulary Notebooks can be made from ½ of a composition book.

# Activity Round 'Em Targets

It is important that children learn about rounding numbers, especially if they are going to do effective mental math. The rules for rounding are simple: if the number is or ends in 0, 1, 2, 3, or 4, the number round down; and if the number is 5, 6, 7, 8, or 9, then the number is rounded up to the next ten.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



# Round 'Em Targets

#### Directions:

- 1. Divide students into pairs.
- 2. Give each group a Round 'Em Target Cards and Game Board.
- 3. Shuffle the cards and place them face down next to the game board.
- 4. Player 1 draws a card and determines if he/she should round the number up or down.
- 5. Once the decision has been made, he/she places the card in the column on the Game Board that indicates the number that the card was rounded to.

**Example:** the player draws a card that has a 43 on it. The rule would require that the student round down to "40", so he/she would place the card in the column labeled "40"

- 6. Player 2 then takes his/her turn.
- 7. Game is over when all cards have been rounded and placed in columns.

Closing
Review
Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of next time?

What are the different shapes that you made with the marshmallows and toothpicks.

Where can you find those shapes in the world?

#### Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



# Round 'Em Targets

20	30	40	50	60



23	27	29	21	25
34	36	38	31	33
43	49	47	42	48
53	57	59	51	54
17	22	19	18	24
32	33	37	39	35
42	46	41	44	45
52	56	61	64	56



Component	Math
Grade Level:	First Grade
Lesson Title:	Fantastic Fun
Focus:	Subtraction

Materials:

White boards Fantastic Fun Game Board and Cards

Cravolas Beans or other markers

Socks

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about addition? What do you know about subtraction?

Addition and subtraction is really about understanding counting both forward (increasing) and backward (decreasing)
Ask student volunteers for a number sentence. Write it on the board and discuss the name of each of the numbers
(addends/sums, or minuend, subtrahend, and difference), the operations signs (+ and -) and also the equals sign which
can be written = in a horizontal problem, and \_\_\_\_\_\_ (the underline) in a vertical problem. Write the problems students
give you in both a horizontal (5 + 4 = 9) and vertical manner

5

<u>+4</u>

9

#### Content (the "Meat") Problem of the Day \*Activity > Teachable Write a number sentence to explain the following picture. How did you know what to write? Moment(s) *throughout* $\odot$ $\odot$ $\odot$ $\odot$ During the lesson check in with students repeatedly. $\odot$ Check in about what is happening and what they are **Fact Practice** thinking. Fact Practice for 1st grade is looking at number families, so you are looking at both addition Take advantage of any and subtraction. The key is for children to learn that numbers have a relationship with one teachable moments. another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) Stop the class and focus on a student's key learning or They will write the problem in four ways. 1 + 2 = 3understanding. Ask open-2 + 1 = 3ended auestions to determine what the rest of 3 - 2 = 1the group is thinking. 3 - 1 = 2



After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

Today you will introduce this activity and begin with the Fact Family of 6, 8 and 14. Have students write the entire Fact Family on the white board.

6 + 8 = 14

8 + 6 = 14

14 - 6 = 8

14 - 8 = 6

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 6, 8, and 14.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.

#### Math Vocabulary

Word for Today: cent

**Description:** The term cent is used to describe a coin and its value. Everything begins with the value of one cent or 1¢ or 1 penny. A nickel is worth 5¢, which means it is valued at 5 pennies, while a dime or 10¢ is valued at 10 pennies.

Have children complete the Vocabulary notebook.

## **Vocabulary Notebook Sample:**

New Word	My Description
cent	cent is a word that describes the value of coins
Personal Connection	Drawing
I have 38¢1 quarter, 1 dime and 3 pennies.	¢

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a

composition book.

Students will complete this notebook for each vocabulary word that they are given.

# Activity Fantastic Fun!

Students in 1<sup>st</sup> grade need to practice addition and subtraction facts to automaticity. We have been working on Fact Families. This activity will give students more practice time.

Fantastic Fun! Directions:

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



- 1. Divide students into pairs.
- 2. Give each pair a set of Fantastic Fun cards, a Fantastic Fun Game Board, and game token (beans, markers, etc.) for each student.
- 3. Shuffle the cards and place them face down by the game board.
- 4. Player 1 takes the top card, finds difference, shares the problem with the other player and if the answer is correct, then he/she places a game token on that number on the game board.
- 5. Player 2 repeats the same process.
- 6. Game is over when all of the cards have been drawn.
- 7. Winner is the player with the most markers.

	Closing
	Review
Say:	
<ul><li>Please recap what we did today.</li><li>Did we achieve our objectives?</li></ul>	
	Debrief
What did you like about what we did today in math?	
What would you like to do more of the next time we do	math?
What does it mean when we say we found an answer b	y addition?

#### Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them. (Aha!)



Fantastic Fun!

8	4	5	4	5	7
					4
6	8	6	5	3	9
9					
11	7	9	9	11	7
					6
9	13	8	10	8	9



18	18	17	17
<u>-9</u>	<u>-5</u>	<u>-9</u>	<u>-7</u>
16	16	15	15
<u>-7</u>	<u>-5</u>	<u>-8</u>	<u>-9</u>
15	14	14	13
<u>-6</u>	<u>-3</u>	<u>-7</u>	<u>-4</u>
13	13	13	12
<u>-5</u>	<u>-7</u>	<u>-8</u>	<u>-9</u>
12	12	11	11
<u>-6</u>	<u>-8</u>	<u>-4</u>	<u>-6</u>



13	12	11	15
<u>-9</u>	<u>-7</u>	<u>-7</u>	<u>-7</u>
16	17	15	20
<u>-8</u>	<u>-8</u>	<u>-7</u>	<u>-10</u>



Component	Math
Grade Level:	First Grade
Lesson Title:	FTRSF Review
Focus:	Review

Materials:
White boards
Crayolas
Socks

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

## Gain prior knowledge by asking students the following questions

What do you like best about working with numbers?

What does it mean to estimate?

What is a coin?

What is a number sentence?

#### Content (the "Meat")

#### Problem of the Day

What number is missing from this number sentence that will make it correct?

7 - = 5

#### Fact Practice

Fact Practice for 1<sup>st</sup> grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible engage

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



**Today** you will introduce this activity and begin with the Fact Family of 6, 9 and 15. Have students write the entire Fact Family on the white board.

6 + 9 = 15

9 + 6 = 15

15 - 6 = 9

15 - 9 = 6

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 6, 9, and 15

Activity

Choice of 5 activities

Over the past 11 days students have played 5 different games. Give students an opportunity to play one of these games.

Fantastic Fun
Taking the Prize
Round 'em Targets
Say What?
Fun Facts!

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

Closing
---------

Review

Say:

- Please recap what we did today.
- Did we achieve our objectives?

Debrief

Which of the games did you enjoy playing the most?

What about this game is fun for you?

#### Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them. (Aha!)



Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun! Lesson #1
Focus:	Telling Time

Materials:

White boards Fantastic Fun Game Board and Cards

Crayolas Beans or other markers

Socks Activity at end of the lesson plan

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about telling time? What are some of the ways that we measure time? Is a season a measurement of time? What are the seasons? Do we measure time in months? What are the names of the months? What about days? What are the names of the days? We also measure in weeks. Weeks are how many days long? How about hours? How many in a day? How about minutes? How many minutes in an hour?

We need to track time and there are many different ways that we can do that.

#### Content (the "Meat")

#### **Problem of the Day**

Write the following numbers in order from the largest to the smallest. Tell how you know the order is correct.

23, 7, 10, 32, 13

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say,

"If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1".

# \*Activity → Teachable Moment(s) throughout

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking

When possible, engage students in a "teach to learn" opportunity and have the



You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

Today you will introduce this activity and begin with the Fact Family of 6, 8 and 14. Have students write the entire Fact Family on the white board.

6 + 8 = 14

8 + 6 = 14

14 - 6 = 8

14 - 8 = 6

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 6, 8, and 14.

student become the teacher

#### **Math Vocabulary**

#### Word for Today: clock

**Description:** The term clock is a word that describes a way we keep track of hours and minutes. A clock can be an analog clock. These are clock that we can often see on walls and are usually round and have then numbers 1-12 on them. They have two moving hands as well. A clock is too big to wear.

Have children complete the Vocabulary notebook. A clock that you can wear is called a watch. Ask children questions about what a clock looks like. If there is a clock in the room, have them look at it.

#### **Vocabulary Notebook Sample:**

New Word	My Description	
picnic	Hot dogs, mustard, catsup, drinks, ball games, family fun at the park	
Personal Connection	Drawing	
I love to go to the park with my family. We take a picnic lunch and barbeque hot dogs.		

often throughout the day
Complete the Vocabulary
notebook for each word.
When possible, have
students experience the word
(Ex. 4 students creating a
right angle, multiple students
acting out an equation)
Vocabulary Notebooks can
be made from ½ of a
composition book

It is important to review academic math vocabulary

Students will complete this notebook for each vocabulary word that they are given.

#### Activity

The focus for the next 4 days will be telling time both to the hour and the ½ hour. Telling

Focus on having young people "compete" in pairs or



time with both a digital and analog (this is with a clock face) clocks.

Draw a circle on the white board and a rectangle. Ask the students what they have seen that comes in the shape of both a circle and a rectangle. List several of their suggestions. Tell them that clocks come in those two shapes. Tell them that a circle clock shows the time by using two hands, a short hand to point to the hour and a long hand to point to the minutes. Tell the children that this is called analog time (they may easily remember this word since it is unusual). Draw the circle and ask children about the numbers that they see on a clock face. Point to the face of a clock in the classroom if there is one. Show children how to write the numbers on the clock.

Step #1: Place the 12 and the 6 on the top and the bottom of the circle.

Step #2: Place the 3 and the 9 across from each other, ½ way between the 12 and the 6.

Step #3: Numbers 1 and 2 are placed between the 12 and 3

Step #4: Numbers 4 and 5 placed between the 3 and 6

Step #5: Numbers 7 and 8 placed between the 6 and the 9

Step #6: Numbers 10 and 1 placed between the 9 and the 12

Have children draw several circles and practice this with them. Go through the process each time.

Tell them that the other way we tell time is on a digital clock which is usually shaped like a rectangle. Tell them that a digital clock show the time the way that you would write time. Show them a digital clock face by drawing a rectangle on the board or chart paper.

Put the : in the center of the rectangle. Explain to children that this symbol ":" is used to separate the hour from the minutes. If the time is 1:00 it is written in that way—the hour is one and the minutes are 0.

Have students practice writing the time on the digital clock. Have children draw a rectangle and place a : in the center.

Practice writing different hours, have the minutes be either zero or 30 minutes.

Today's activity is to make an analog clock out of a paper plate or a circle.

Work through the process of writing the numbers on the plate or the circle in the same way that you did at the beginning

Have children cut out the clock hands that are provided in this lesson plan.

Using a brad, attach the clock hands to the clock face.

small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center

#### Closing

#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?



#### **Debrief**

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What does it mean when we say we found an answer by addition?

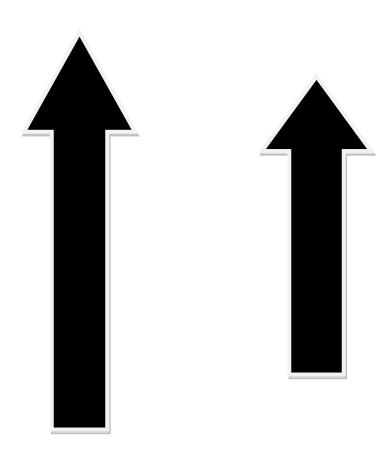
# Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them





1st Grade Clock Hands





# 1st Grade Digital Clocks

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Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun! Lesson #2
Focus:	Telling Time

Materials:	
White boards	pinto beans, pink beans, lima beans
Crayolas	Fantastic Fun Game Board
Socks	Activity at the end of the lesson plan

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about telling time? What are some of the ways that we measure time? Is a season a measurement of time? What are the seasons? Do we measure time in months? What are the names of the months? What about days? What are the names of the days? We also measure in weeks. Weeks are how many days long? How about hours? How many in a day? How about minutes? How many minutes in an hour?

We need to track time and there are many different ways that we can do that.

#### Content (the "Meat")

#### **Problem of the Day**

Jorge has 4 nickels. Does she have enough to purchase a candy bar that costs a quarter? How do you know?

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)

They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look

# \*Activity → Teachable Moment(s) throughout

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking

When possible, engage students in a "teach to learn" opportunity and have the



through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 6, 9, and 15. Have students write the entire Fact Family on the white board.

6 + 9 = 15

9 + 6 = 15

15 - 6 = 9

15 - 9 = 6

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 6, 9 and 15.

student become the teacher

#### Math Vocabulary

#### Word for Today: analog

**Description:** The word analog is a reference to a type of clock. It is a clock that has a face with the numbers 1-12 on it. It has hands that move to show the time. It has a long hand which is a minute tracking hand and a short hand which is an hour tracking time. Analog clock require that you learn how to read the time that the two hands are pointing to.

In your Vocabulary Notebook create the entry for the word "analog" and with a friend review and be sure that it captures your understanding of the word.

**Vocabulary Notebook Sample:** 

New Word	My Description
picnic	Hot dogs, mustard, catsup, drinks, ball games, family fun at the park
Personal Connection	Drawing
I love to go to the park with my family.  We take a picnic lunch and barbeque he dogs.	

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation) Vocabulary Notebooks can

be made from ½ of a composition book

Students will complete this notebook for each vocabulary word that they are given.

# Activity Telling Time

Today you are going to work with children on telling time by looking at analog clock. Draw several clocks (circles) on the board.

Work through the process of placing the numbers on the clock face. Discuss how the longer hand points to the minutes and the short hand points to the hour. Discuss that when the large hand is pointing to the 12 it means that there are 0 minutes (also talk about that there are 60 minutes in 1 hour). Today you are going to focus on telling time to the hour.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center



Pass out copies of Worksheet #1 to each pair of students. You will need to get this worksheet by going to the website at Have them work through the worksheet together. Have children transfer the analog time from the worksheet to the digital clock worksheet provided.

What would you like to do more of the next time we do math?	

# Reflection (Confirm, Tweak, Aha!)

Are they the same?

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them



1st Grade

11 12 1 10 2 9 3 8 4 7 6 5	11 12 1 10 2 9 3 8 4 7 6 5	11 12 1 10 2 9 3 8 4	11 12 1 10 1 2 9 3 8 4
11 12 1 10 2 9 3 8 4 7 6 5	11 12 1 10 2 9 3 8 4	11 12 1 10 2 9 3 8 4 7 6 5	11 12 1 10 2 9 3 8 4 7 6 5
11 12 1 10 2 9 3 8 4 7 6 5	11 12 1 10 2 9 3 8 4	11 12 1 10 1 2 9 3 8 4	11 12 1 10 2 9 3 8 4 7 6 5

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#### CONSULT 4 KIDS

#### **Consult 4 Kids Lesson Plans**

Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun! Lesson #3
Focus:	Telling Time

Materials:		
White boards	Activity at the end of the lesson plan	
Crayolas		
Socks		

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about telling time? What are some of the ways that we measure time? Is a season a measurement of time? What are the seasons? Do we measure time in months? What are the names of the months? What about days? What are the names of the days? We also measure in weeks. Weeks are how many days long? How about hours? How many in a day? How about minutes? How many minutes in an hour?

We need to track time and there are many different ways that we can do that.

# Content (the "Meat") Problem of the Day Look at the graph below. Which cookie is the most well-liked? How do you know? Sugar Chocolate Coconut Date

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

# \*Activity → Teachable Moment(s) throughout

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking

When possible, engage students in a "teach to learn" opportunity and have the

# KIDS

#### **Consult 4 Kids Lesson Plans**

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 7, 7, and 14. Have students write the entire Fact Family on the white board.

7 + 7 = 14

7 + 7 = 14

14 - 7 = 7

14 - 7 = 7

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 7, 7, and 14. Share with students that this fact is a double—the addends are the same.

student become the teacher

#### **Math Vocabulary**

## Word for Today: digital

Description: The term digital refers to a type of clock that has the numbers written on the face of the clock in the same way that you would write it yourself. If it is twelve o'clock, a digital clock would read: 12:00. If it were three o'clock, the digital clock would read: 3:00. If the time is to the half hour, in other words if it was four thirty, a digital clock would look like this: 4:30. Since there are 60 minutes in an hour, ½ hour would be 30 minutes.

Have children complete the Vocabulary notebook.

#### **Vocabulary Notebook Sample:**

New Word	My Description
picnic	Hot dogs, mustard, catsup, drinks, ball games, family fun at the park
Personal Connection	Drawing
I love to go to the park with my family. We take a picnic lunch and barbeque hot dogs.	

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation)

Vocabulary Notebooks can be made from ½ of a composition book

Students will complete this notebook for each vocabulary word that they are given.

Activ	ity/
Telling	Time

Focus on having young people "compete" in pairs or



Today you are going to work with children on telling time by looking at analog clock. Draw several clocks (circles) on the board.

Work through the process of placing the numbers on the clock face. Discuss how the longer hand points to the minutes and the short hand points to the hour. Discuss that when the large hand is pointing to the 12 it means that there are 0 minutes (also talk about that there are 60 minutes in 1 hour). Today we are going to focus on telling time to the  $\frac{1}{2}$  hour. Discuss that since the 6 is  $\frac{1}{2}$  way around the clock it is called the  $\frac{1}{2}$  hour. Share with children that  $\frac{1}{2}$  of 60 minutes is 30 minutes and that this is why we call the  $\frac{1}{2}$  hour thirty—for the 30 minutes in a  $\frac{1}{2}$  hour.

Pass out copies of Worksheet #3 to each pair of students. Have them work through the worksheet together. Have children transfer the analog time from the worksheet to the digital clock worksheet provided.

small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center

## Closing

#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What is a cylinder?

Where can you see them in the world?

#### Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them



1st Grade

11 12 1	11 12 1	11 12 1	11 12 1
10 2	10 2	10 2	10 2
9 3	9 3	9 3	9 3
8 4	8 4	8 4	8 4
7 6 5	7 6 5	7 6 5	7 6 5
11 12 1	11 12 1	11 12 1	11 12 1
10 2	10 2	10 2	10 2
9 3	9 3	9 3	9 3
8 4	8 4	8 4	8 4
7 6 5	7 6 5	7 6 5	7 6 5
11 12 1 10 2 9 3 8 4	11 12 1 10 2 9 3 8 4 7 5 5	11 12 1 10	11 12 1 10 2 9 3 8 4 7 6 5

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#### CONSULT 4 KIDS

#### **Consult 4 Kids Lesson Plans**

Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun! Lesson #4
Focus:	Telling time

Materials:	
White boards	decks of cards with face cards and jokers removed
Crayolas	Activity at the end of the lesson plan
Socks	

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about telling time? What are some of the ways that we measure time? Is a season a measurement of time? What are the seasons? Do we measure time in months? What are the names of the months? What about days? What are the names of the days? We also measure in weeks. Weeks are how many days long? How about hours? How many in a day? How about minutes? How many minutes in an hour?

We need to track time and there are many different ways that we can do that.

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## **Problem of the Day**

Draw a picture that will illustrate the number sentence below. Explain your picture.

7 - 3 = 4

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)

They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 1 - 2

After they have written the problem in all 4 ways they will find a partner and say,

"If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1".

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking

When possible, engage students in a "teach to learn" opportunity and have the



You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 7, 8 and 15. Have students write the entire Fact Family on the white board.

7 + 8 = 15

8 + 7 = 15

15 - 7 = 8

15 - 8 = 7

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 7, 8 and 15.

student become the teacher

#### **Math Vocabulary**

Word for Today: 1/2 hour

**Description**: The term  $\frac{1}{2}$  hour refers to 30 minutes which is half of an hour. A lot of TV shows are just  $\frac{1}{2}$  hour long. The may last from 7:00 - 7:30 for example. That means that you could watch two different programs in 1 hour, each one taking  $\frac{1}{2}$  of the time.

Complete an entry for ½ hour in your Vocabulary Notebook.

**Vocabulary Notebook Sample:** 

New Word	My Description
picnic	Hot dogs, mustard, catsup, drinks, ball games, family fun at the park
Personal Connection	Drawing
I love to go to the park with my family. We take a picnic lunch and barbeque hot dogs.	

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation)

Vocabulary Notebooks can be made from ½ of a composition book

Students will complete this notebook for each vocabulary word that they are given.

#### Activity

## **Telling Time**

Today we will review both hour and  $\frac{1}{2}$  hour time with a game of concentration.

# Time Match

#### **Directions:**

- 1. Divide students into pairs
- 2. Give each pair a set of Time Match Cards
- 3. Shuffle the Time Match Cards and place them in a grid that is 4 cards by 4 cards, face down

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center



- 4. Player 1 turns over two cards, if they match then player removes the cards and places two new cards in the vacant spaces
- 5. Player 2 then takes a turn
- 6. When all the cards have been matched the game is over.

	Closing
	Review
Say:	
Please recap what we did today.	
Did we achieve our objectives?	
	Debrief
	Debilei
What did you like about what we did today in math?	
How can you use the information from today in school to	omorrow?

## Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them



# 1st Grade

11 12 1 10 2 9 3 8 4 7 6 5	11 12 1 10 2 9 3 8 4 7 6 5	11 12 1 10	11 12 1 10 2 9 3 8 4 7 6 5
11 12 1 10 2 9 3 8 4	11 12 1 10 2 9 3 8 4 7 6 5	11 12 1 10 2 9 3 8 4 7 6 5	11 12 1 10 2 9 3 8 4 7 6 5
11 12 1	11 12 1	11 12 1	11 12 1
10 2	10 2	10 2	10 2
9 3	9 3	9 3	9 3
8 4	8 4	8 4	8 4
7 6 5	7 6 5	7 6 5	7 6 5
11 12 1	11 12 1	11 12 1	11 12 1
10 2	10 2	10 2	10 2
9 3	9 3	9 3	9 3
8 4	8 4	8 4	8 4
7 6 5	7 6 5	7 6 5	7 6 5
11 12 1	11 12 1	11 12 1	11 12 1
10 2	10 2	10 2	10 2
9 3	9 3	9 3	9 3
8 4	8 4	8 4	8 4
7 6 5	7 6 5	7 6 5	7 6 5



9:00	9:30	10:00	10:30
11:00	11:30	8:00	8:30
1:00	1:30	2:00	2:30
3:00	3:30	4:00	4:30
5:00	5:30	7:00	7:30



Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun! Lesson #5
Focus:	Money

Materials:		
White boards	Activity at the end of this lesson plan	
Crayolas		
Socks		

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about money? What are the names of the most commonly used coins in the United States. What does it mean when someone asks you if you have any change? Which of our coins is largest? Which is smallest? How many pennies in \$1.00. How many dimes in \$1.00. What is the difference between these two symbols: \$ and \$ What is something that you can buy for \$1.00?

#### Content (the "Meat")

#### **Problem of the Day**

Draw a picture of a clock that shows that your favorite television show begins at 7:30. Tell how you know that your clock is correct.

#### **Fact Practice**

Fact Practice for 1<sup>st</sup> grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher



through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 7, 9, and 16. Have students write the entire Fact Family on the white board.

7 + 9 = 16

9 = 7 = 16

16 - 7 = 9

16 - 9 = 7

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 7, 9 and 16...

#### **Math Vocabulary**

#### Word for today: coin

Description: the term coin refers to money around the world that it is made out of metal. It is not paper money. A coin is round and in some countries it will have a hole in the middle. A coin can also be called change. In the United States the four most common coins are the penny, the nickel, the dime, and the quarter. Each of these has a different value. Ask children to share the value of each of these coins with you.

Have children complete the vocabulary notebook for the word coin.

**Vocabulary Notebook Sample:** 

New Word	My Description
picnic	Hot dogs, mustard, catsup, drinks, ball games, family fun at the park
Personal Connection	Drawing
I love to go to the park with my family. We take a picnic lunch and barbeque hot dogs.	

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students

acting out an equation)
Vocabulary Notebooks can
be made from ½ of a
composition book

# Activity Money

The focus for the next 7 days will be money, combining both bills and coins, understanding the decimal point and how this is all compared to 100 cents in a dollar.

There are four main coins that we use in the United States. They are the penny, the nickel, the dime and the quarter. We also have a  $50\phi$  piece and a silver dollar, but those are not used as often as the other four coins. Each coin has a front (called the head) and a back (called the tail). A penny is worth  $1\phi$ , a nickel is worth  $5\phi$ , a dime is worth  $10\phi$ , and a quarter is worth  $25\phi$ . These values are all in comparison with the  $100\phi$  it takes to make a dollar.

Work through several examples of counting money with the children. Draw the coins by drawing a circle and writing the value of the coin inside. For example:

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center







Once the students have practiced they are ready to participate in the activity.

#### **How Much?**

#### **Directions:**

- 1. Divide the students into pairs
- 2. Give each pair a deck of How Much cards
- 3. Player 1 selects a card and determines the value of the coins on the card in cents.
- 4. Player 2 repeats the process
- 5. Activity is over when all of the cards have been selected.

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#### Review

## Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of next time?

What are the different shapes that you made with the marshmallows and toothpicks

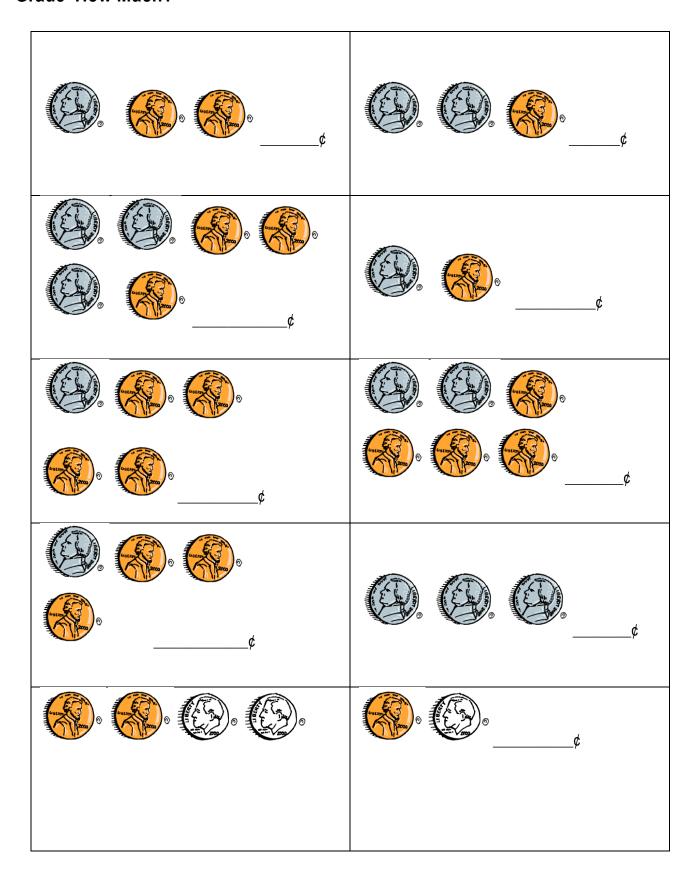
Where can you find those shapes in the world?

#### Reflection (Confirm, Tweak, Aha!)

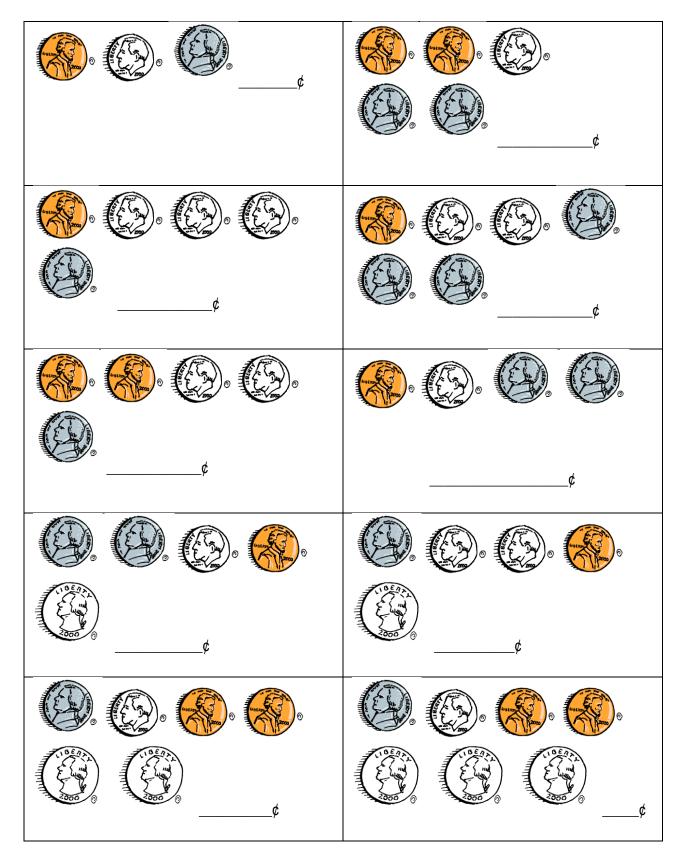
- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them



# 1st Grade How Much?









Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun! Lesson #6
Focus:	Money

Materials:		
White boards	Activity at the end of the lesson plan	ļ
Crayolas		
Socks		

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about money? What are the names of the most commonly used coins in the United States. What does it mean when someone asks you if you have any change? Which of our coins is largest? Which is smallest? How many pennies in \$1.00. How many dimes in \$1.00. What is the difference between these two symbols: \$ and \$\$? What is something that you can buy for \$1.00?

Content (1	the "M	eat")
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#### **Problem of the Day**

Is it possible or impossible that there will be a cloud in the sky tomorrow? Explain your thinking.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking

When possible, engage students in a "teach to learn" opportunity and have the





students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 8, 8 and 16. Have students write the entire Fact Family on the white board.

8 + 8 = 16

8 + 8 = 16

16 - 8 = 8

16 - 8 = 8

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 8, 8, and 16.

student become the teacher

#### **Math Vocabulary**

#### Word for today: value

**Description:** The term value refers to how much something is worth. We place a value on things and you can generally figure the value in terms of money. For example, you might spend \$1.00 for a candy bar and get some change back, but is you were going to buy a pair of shoes, you would probably need at least \$10.00 to \$20.00. In the United States we believe that there is more value in a pair of shoes than in a candy bar. Think about some common items that you have at your house. What is the value of each of those when it comes to money? Which is considered more valuable?

Create an entry in your Vocabulary Notebook for the word value.

**Vocabulary Notebook Sample:** 

New Word	My Description
picnic	Hot dogs, mustard, catsup, drinks, ball games, family fun at the park
Personal Connection	Drawing
I love to go to the park with my family. We take a picnic lunch and barbeque hot dogs.	

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation)

Vocabulary Notebooks can be made from ½ of a composition book

# Activity Money

There are four main coins that we use in the United States. They are the penny, the nickel, the dime and the quarter. We also have a  $50 \, c$  piece and a silver dollar, but those are not used as often as the other four coins. Each coin has a front (called the head) and a back (called the tail). A penny is worth  $1 \, c$ , a nickel is worth  $5 \, c$ , a dime is worth  $10 \, c$ , and a

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center



quarter is worth 25¢. These values are all in comparison with the 100¢ it takes to make a dollar.

Work through several examples of counting money with the children. Draw the coins by drawing a circle and writing the value of the coin inside. For example:





Once the students have practiced they are ready to participate in the activity.

#### **How Much?**

#### **Directions:**

- 1. Divide the students into pairs
- 2. Give each pair a deck of How Much cards
- 3. Player 1 selects a card and determines the value of the coins on the card in cents.
- 4. Player 2 repeats the process
- 5. Activity is over when all of the cards have been selected.

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#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What are the different shapes that you made with the marshmallows and toothpicks

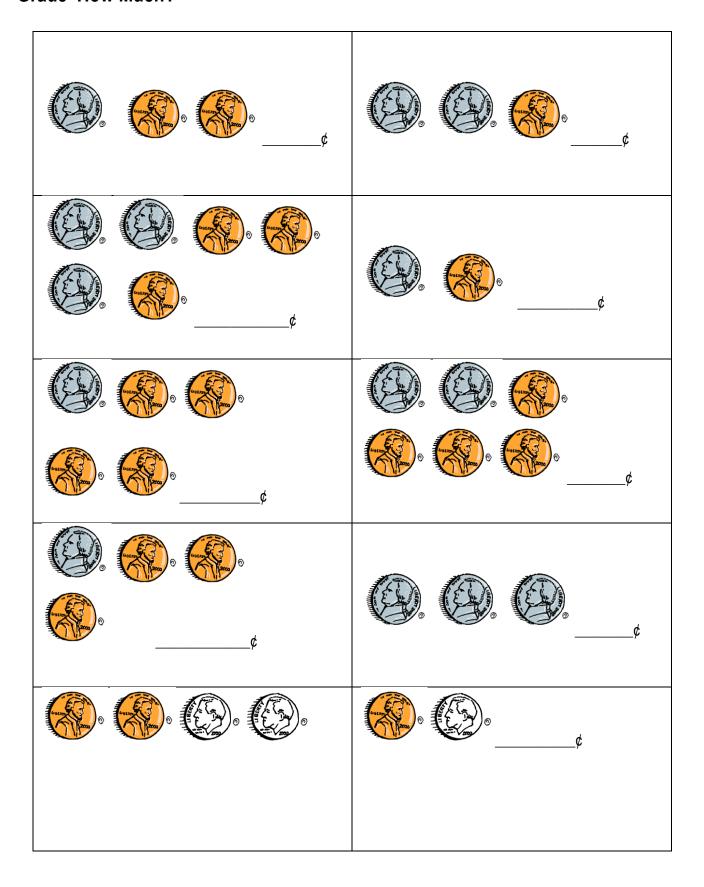
Where can you find those shapes in the world?

#### Reflection (Confirm, Tweak, Aha!)

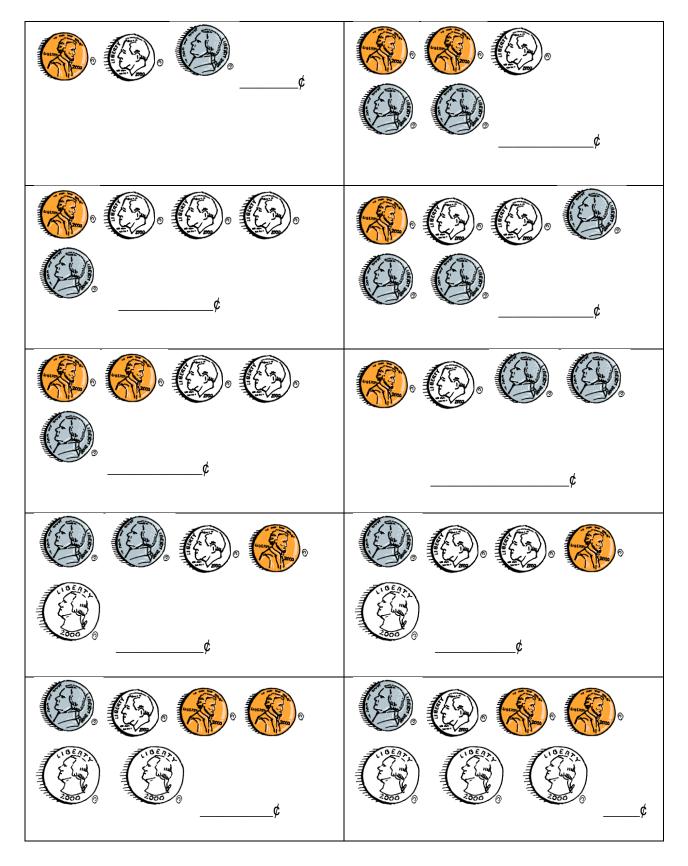
- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them



# 1st Grade How Much?









students in a "teach to learn"

student become the teacher

opportunity and have the

#### **Consult 4 Kids Lesson Plans**

Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun! Lesson #7
Focus:	Money

Materials:		
White boards	Activity at the end of this lesson plan	
Crayolas		
Socks		

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about money? What are the names of the most commonly used coins in the United States. What does it mean when someone asks you if you have any change? Which of our coins is largest? Which is smallest? How many nickels in \$1.00. How many quarters in \$1.00. What is the difference between these two symbols: \$ and ¢? What is something that you can buy for \$1.00? Would you rather have 3 quarters or 6 dimes? Explain your thinking.

Content (the "Meat")		
Problem of the Day	*Activity → Teachable Moment(s) throughout	
What number makes this sentence true? How do you know your answer is correct?	During the lesson check in with students repeatedly.	
8 = 5	Check in about what is happening and what they are	
Fact Practice Fact Practice for 1 <sup>st</sup> grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways. $1 + 2 = 3$ $2 + 1 = 3$ $3 - 2 = 1$	thinking. Take advantage of any teachable moments Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking	
3 - 1 = 2 After they have written the problem in all 4 ways they will find a partner and say,	When possible, engage	

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1".

You should have them practice this conversation (exactly as it is written) with 3-5 other

"If 1 + 2 = 3, then 2 + 1 = 3".



students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 8, 9 and 17 Have students write the entire Fact Family on the white board.

$$8 + 9 = 17$$

$$9 + 8 = 17$$

$$17 - 8 = 9$$

$$17 - 9 = 8$$

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 8, 9, and 17

#### Math Vocabulary

#### Word for Today: quarter

Description: Quarter is a word that we use to describe a coin in the United States that is worth \$.25 or 25¢. It is called a quarter because it takes four of them to equal one dollar, each coin is worth a quarter of a dollar. Practice this Quarter Chant with the students. Then have students draw four quarters which is worth \$1.00

#### **Quarter Chant**

Quarter, quarter
Big and bold
You're worth twenty-five
I am told.

Have children revisit the entry in the Vocabulary Notebook for the word **quarter**.

**Vocabulary Notebook Sample:** 

New Word	My Description
picnic	Hot dogs, mustard, catsup, drinks, ball games, family fun at the park
Personal Connection	Drawing
I love to go to the park with my family. We take a picnic lunch and barbeque hot dogs.	

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word.
When possible, have students experience the word (Ex. 4 students creating a

right angle, multiple students acting out an equation)

Vocabulary Notebooks can be made from ½ of a composition book

Activity Money

Using Coins

Focus on having young people "compete" in pairs or small groups. Once a game



Understanding how to count coins and values of combined coins, is only half of it. It is important for you to determine what you can buy with the money you have.

Today we are going to do an activity that gives you an opportunity to count the coins that you have and then determine what you can buy.

Demonstrate several problems with the students before they pair up to participate in the activity.

is mastered you can utilize it in the "When Homework Is Complete" center

# **Going Shopping**

#### **Directions:**

- 1. Divide students into pairs
- 2. Give each pair a deck of Going Shopping Cards, a Going Shopping Game Board, and a white board
- 3. Player 1 draws a Going Shopping Card and determines how much money he/she has
- 4. Player 1 then determines what he/she will purchase and places a token on that item on the game board
- 5. Player 2 then repeats the process
- 6. Game is over when all of the cards have been drawn
- 1. **Note:** more than one person can purchase each item.

#### Closing

#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about today's lesson?

How can you use the information from today during class tomorrow?

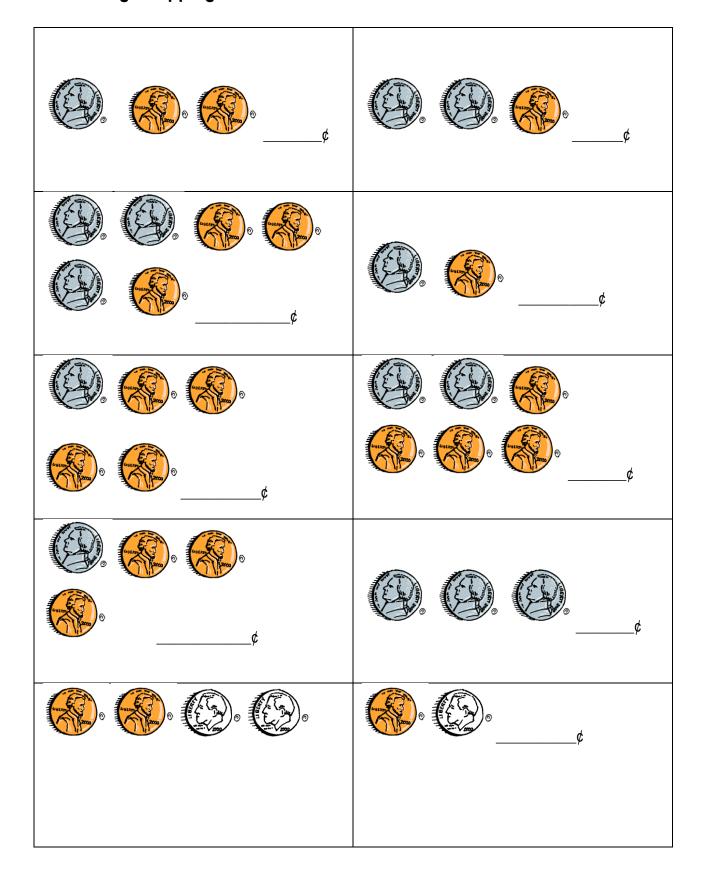
What is one key learning you had today in math?

#### Reflection (Confirm, Tweak, Aha!)

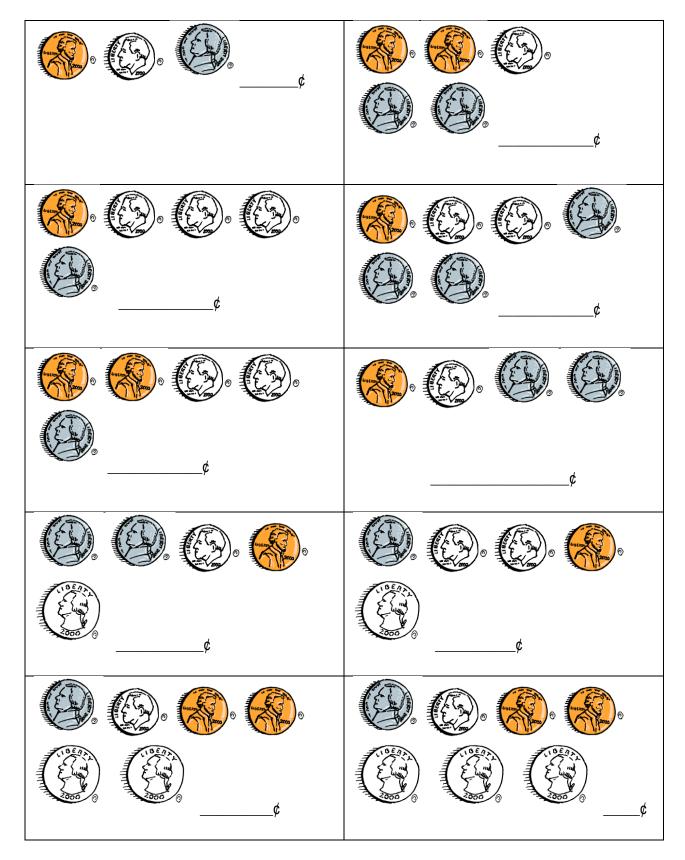
- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them



# 1st Grade Going Shopping



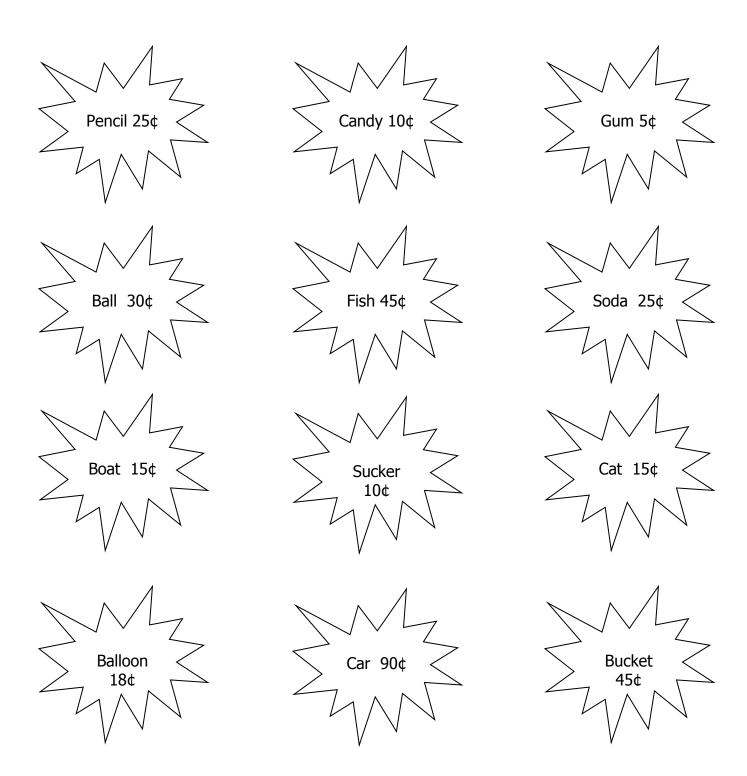






# **Going Shopping Game Board**

Select the item that you most want. Put a token on the item you select. Be sure that you can afford the item that you select.





Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun! Lesson #8
Focus:	Money

Materials:		
White boards	Activity at the end of the lesson plan	
Crayolas		
Socks		

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about money? What are the names of the most commonly used coins in the United States. What does it mean when someone asks you if you have any change? Which of our coins is largest? Which is smallest? How many nickels in \$1.00. How many quarters in \$1.00. What is the difference between these two symbols: \$ and ¢? What is something that you can buy for \$1.00? Would you rather have 15 nickels or 8 dimes? Explain your thinking.

#### Content (the "Meat")

#### **Problem of the Day**

Count by 2s to 63 beginning at 27. Write the numbers that you will write down.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking
When possible, engage students in a "teach to learn"

opportunity and have the

student become the teacher



correct response.

**Today** you will introduce this activity and begin with the Fact Family of 9, 9, and 18 (a double)

Have students write the entire Fact Family on the white board.

9 + 9 = 18

9 + 9 = 18

18 - 9 = 9

18 - 9 = 9

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 9, 9, and 18. Ask students to give you examples of other doubles. Ask students to tell how doubles are different than other fact families.

#### Math Vocabulary

Word for Today: nickel

**Description**: A nickel is coin in the United States that is equal to \$.05 or 5¢. A nickel is bigger than both a dime and a penny. It takes two nickels to = one dime. It takes 5 pennies to equal one nickel. Practice this Nickel Chant with the students. Then have them draw 5 nickels (this equals a quarter—count by 5's)

#### Nickel Chant

Nickel, nickel Thick and fat You're worth five cents I know that!

**Vocabulary Notebook Sample:** 

New Word	My Description
picnic	Hot dogs, mustard, catsup, drinks, ball games, family fun at the park
Personal Connection	Drawing
I love to go to the park with my family.  We take a picnic lunch and barbeque hot dogs.	

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation)

Vocabulary Notebooks can be made from ½ of a composition book

# Activity Money

#### **Using Coins**

Understanding how to count coins and values of combined coins, is only half of it. It is

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is

# KIDS

#### **Consult 4 Kids Lesson Plans**

important for you to determine what you can buy with the money you have.

Today we are going to do an activity that gives you an opportunity to count the coins that you have and then determine what you can buy.

Demonstrate several problems with the students before they pair up to participate in the activity.

#### Complete" center

#### **Going Shopping**

#### **Directions:**

- 1. Divide students into pairs
- 2. Give each pair a deck of Going Shopping Cards, a Going Shopping Game Board, and a white board
- 3. Player 1 draws a Going Shopping Card and determines how much money he/she has
- 4. Player 1 then determines what he/she will purchase and places a token on that item on the game board
- 5. Player 2 then repeats the process
- 6. Game is over when all of the cards have been drawn

**Note:** more than one person can purchase each item.

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#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### **Debrief**

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

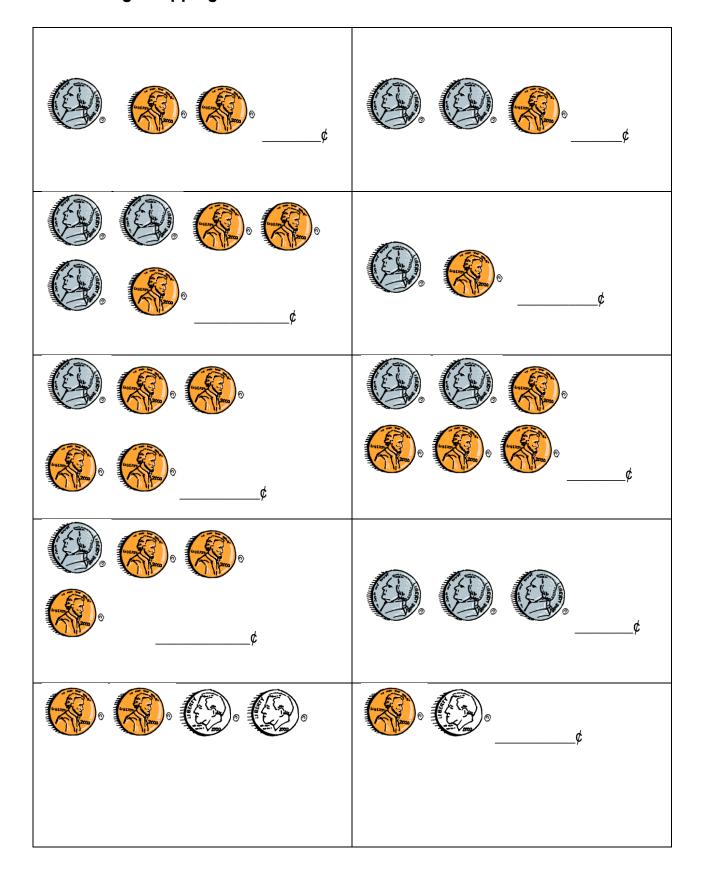
Give an example of how you will use what we did today in school tomorrow.

### Reflection (Confirm, Tweak, Aha!)

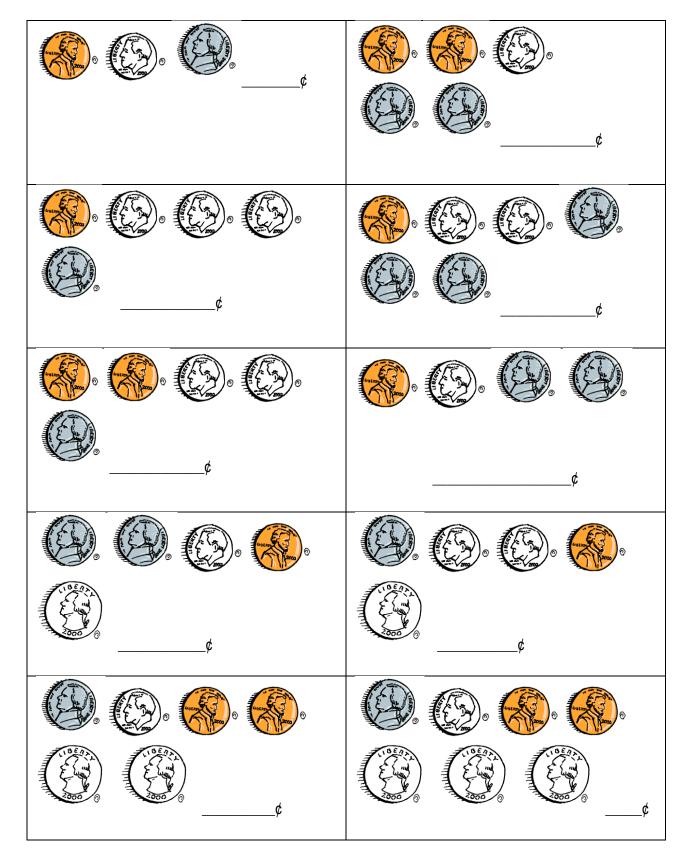
- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them



# 1st Grade Going Shopping



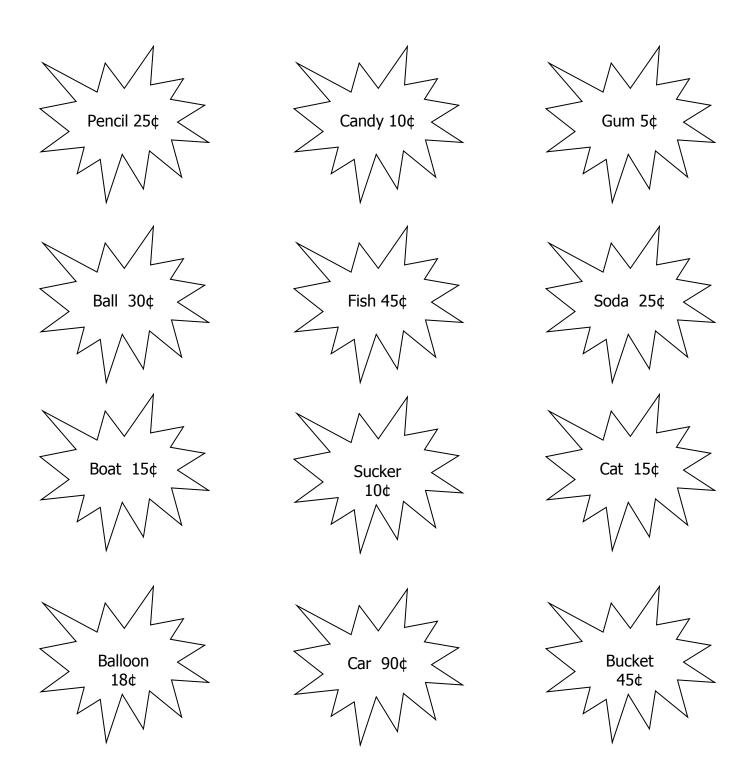






# **Going Shopping Game Board**

Select the item that you most want. Put a token on the item you select. Be sure that you can afford the item that you select.





Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun! Lesson #9
Focus:	Money

Materials:		
White boards	Activity at the end of the lesson plan	
Crayolas		
Socks		

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Focus Student's Prior Knowledge

What do you know about money? What are the names of the most commonly used coins in the United States. What does it mean when someone asks you if you have any change? Which of our coins is largest? Which is smallest? How many nickels in \$1.00. How many quarters in \$1.00. What is the difference between these two symbols: \$ and ¢? What is something that you can buy for \$1.00? Would you rather have 40 pennies or 8 nickels? Explain your thinking.

#### Content (the "Meat")

#### **Problem of the Day**

Julie has a flat shape that has four equal sides. Does Julie have a triangle or a square? How do you know?

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher

# **4**

#### **Consult 4 Kids Lesson Plans**

through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 9, 10, and 19 Have students write the entire Fact Family on the white board.

9 + 10 = 19

10 + 9 = 19

19 - 9 = 10

19 - 10 = 9

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 9, 10, and 19.

#### **Math Vocabulary**

#### Word for Today: dime

Description: Dime is a word for a United States coin that means \$.10 or 10¢. There are 10 dimes in \$1.00. The dime is the smallest United States coin. Review the Dime Chant with the children.

Dime. dime

Little and thin

I remember

You're worth ten.

Have children review the Vocabulary notebook for the word "dime".

**Vocabulary Notebook Sample:** 

New Word	My Description
picnic	Hot dogs, mustard, catsup, drinks, ball games, family fun at the park
Personal Connection	Drawing
I love to go to the park with my family. We take a picnic lunch and barbeque hot dogs.	

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation)

Vocabulary Notebooks can be made from ½ of a composition book

# Activity Money

#### Values of Coins

Understanding what coins you will need to make a purchase is incredibly important. When children have money it is important that they make wise choices about spending it. Today and tomorrow children will practice a variation of Going Shopping. This time they will select the coins that they need to purchase an item.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center

#### Circle the Coins



#### **Directions:**

- 1. Divide students into pairs
- 2. Give each pair a deck of Circle the Coins Cards and a Circle the Coins Game board
- 3. Place the Game Board between the 2 students
- 4. Player 1 draws a card, looks at the price of the item and then determines which coins he/she will need to utilize to purchase the item.
- 5. Once a coin has been used, Player places a marker on the coin.
- 6. Player 2 continues with the same format
- 7. Game is over when there are no more coins to make the cost of the item
- 1. **Note:** Once a coin is used it cannot be used a second time.

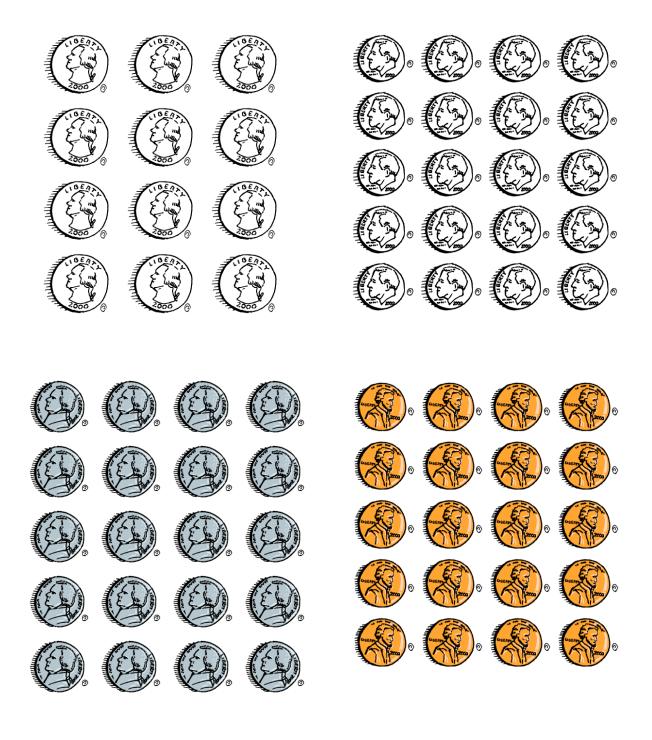
	Closing	
	Review	
Say:		
<ul> <li>Please recap what we did today.</li> </ul>		
<ul><li>Did we achieve our objectives?</li></ul>		
	Debrief	
What did you like about what we did today in math?		
What is a cube?		
How many sides does a cube have?		

#### Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them



# 2<sup>nd</sup> Grade Circle the Coin Game Board





Heart Candy 37¢	Pretzels 73¢
Happy Face Cookie 32¢	Slinky 52¢
Flower Pot 65¢	<b>♥♦</b> ♣♠ Deck of Cards 83¢
Lightning Shoes 89¢	Starburst Candy 64¢
Arrows 42¢	<b>GUM</b> Gum 28¢
Beach Toy 51¢	Blue Ribbon 47¢
"Diamond" 39¢	Book 76¢

#### CONSULT 4 KIDS

#### **Consult 4 Kids Lesson Plans**

Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun! Lesson #10
Focus:	Money

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about money? What are the names of the most commonly used coins in the United States. What does it mean when someone asks you if you have any change? Which of our coins is largest? Which is smallest? How many nickels in \$1.00. How many quarters in \$1.00. What is the difference between these two symbols: \$ and ¢? What is something that you can buy for \$1.00? Would you rather have 9 nickels or 4 dimes? Explain your thinking

#### Content (the "Meat")

## **Problem of the Day**

You have nickels and pennies. Show at three ways that you can have 10¢.





#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher



students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 10, 10, and 20. Have students write the entire Fact Family on the white board.

10 + 10 = 20

10 + 10 = 20

20 - 10 = 10

20 - 10 = 10

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 10, 10 and 20.

#### Math Vocabulary

#### Word for today: penny

**Description:** Penny is the word we use to name the United States coin that is worth \$.01 or 1¢. There are 100 pennies in a dollar. The penny is made out of copper and is a brownish color. Review the Penny Chant with the students.

Penny, penny
Easily spent
Copper brown
And worth one cent

Review the entry for the word penny that is in your Vocabulary notebook.

#### **Vocabulary Notebook Sample:**

New Word	My Description
picnic	Hot dogs, mustard, catsup, drinks, ball games, family fun at the park
Personal Connection	Drawing
I love to go to the park with my family. We take a picnic lunch and barbeque hot dogs.	

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation)

Vocabulary Notebooks can be made from ½ of a composition book

# Activity Money

#### Values of Coins

Understanding what coins you will need to make a purchase is incredibly important. When children have money it is important that they make wise choices about spending it. Today and tomorrow children will practice a variation of Going Shopping. This time they will select the coins that they need to purchase an item.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center



#### **Circle the Coins**

#### **Directions:**

- 1. Divide students into pairs
- 2. Give each pair a deck of Circle the Coins Cards and a Circle the Coins Game board
- 3. Place the Game Board between the 2 students
- 4. Player 1 draws a card, looks at the price of the item and then determines which coins he/she will need to utilize to purchase the item.
- 5. Once a coin has been used. Player places a marker on the coin.
- 6. Player 2 continues with the same format
- 7. Game is over when there are no more coins to make the cost of the item
- 1. **Note:** Once a coin is used it cannot be used a second time.

	Closing
	Review
Say:	
Please recap what we did today.	
<ul> <li>Did we achieve our objectives?</li> </ul>	
	Debrief
What did you like about what we did today in math?	
What do you know about a calendar?	

What are the names of the days of the week?

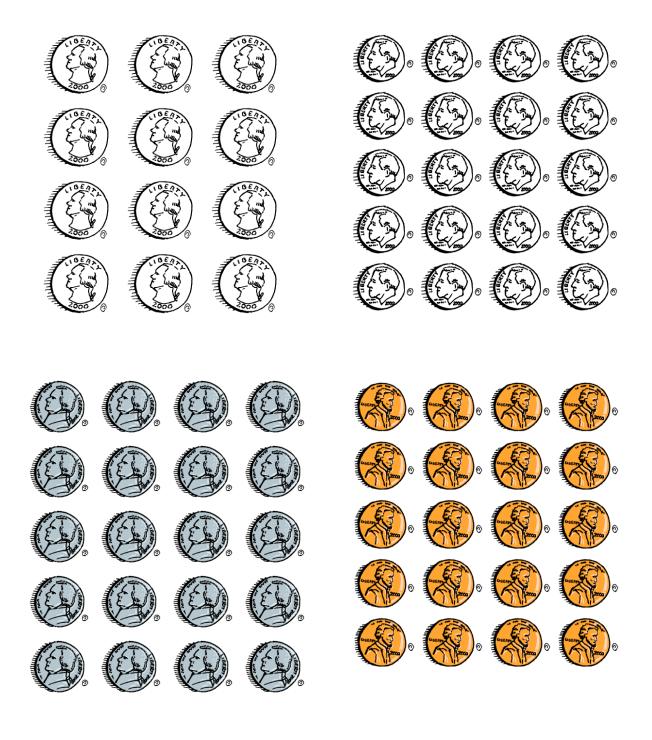
#### Reflection (Confirm, Tweak, Aha!)

What are the names of the month?

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them



# 2<sup>nd</sup> Grade Circle the Coin Game Board





Heart Candy 37¢	Pretzels 73¢
Happy Face Cookie 32¢	Slinky 52¢
Flower Pot 65¢	<b>♥♦♣</b> Deck of Cards 83¢
Lightning Shoes 89¢	Starburst Candy 64¢
Arrows 42¢	<b>GUM</b> Gum 28¢
Beach Toy 51¢	Blue Ribbon 47¢
"Diamond" 39¢	Book 76¢



Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun!
Focus:	Review

Materials:		
White boards	Materials for games played the past 10 days	
Crayolas		
Socks		

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about money? What are the names of the most commonly used coins in the United States. What does it mean when someone asks you if you have any change? Which of our coins is largest? Which is smallest? How many nickels in \$1.00. How many quarters in \$1.00. What is the difference between these two symbols: \$ and ¢? What is something that you can buy for \$1.00? Would you rather have 3 quarters or 6 dimes and 3 nickels? Explain your thinking

	. , ,
Content (the "Meat")	
Problem of the Day Write the number that comes both before and after the following number. Tell how you	*Activity → Teachable Moment(s) <i>throughout</i>
know you are correct.	During the lesson check in with students repeatedly.
29	Check in about what is happening and what they are
Fact Practice	thinking.
Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one	Take advantage of any teachable moments
another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways. $1 + 2 = 3$ $2 + 1 = 3$ $3 - 2 = 1$ $3 - 1 = 2$	Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking
After they have written the problem in all 4 ways they will find a partner and say, "If $1 + 2 = 3$ , then $2 + 1 = 3$ ".  The other student will respond with "Yes, and since that is true, $3 - 1 = 2$ , and $3 - 2 = 1$ ".	When possible, engage students in a "teach to learn" opportunity and have the student become the teacher

You should have them practice this conversation (exactly as it is written) with 3-5 other

#### CONSULT 4 KIDS

#### **Consult 4 Kids Lesson Plans**

students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 6, 9 and 15. Have students write the entire Fact Family on the white board.

6 + 9 = 15

9 + 6 = 15

15 - 6 = 9

15 - 9 = 6

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 6, 9, and 15

#### **Activity**

Today is review day. Students will be able to select from the Fraction Games you played for the last 10 days. Ask students to select from:

Time Match How Much? Going Shopping Circle the Coins Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center

	Closing
	Review
Say:	
Please recap what we did today.	
<ul> <li>Did we achieve our objectives?</li> </ul>	
	Debrief
Which of the games did you enjoy playing the most?	
What about this game is fun for you?	

#### Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them



Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun! Lesson #1
Focus:	Addition

Materials:
White boards dice (3 for each pair)
Crayolas
Socks (for erasers)

#### **Opening**

### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about addition? What do the words, "all together" mean and have to do with addition? What do the words sum, addend, and how many have to do with addition? Please write a number sentence that shows this story: John has 3 cookies. His friend gave him two cookies. How many cookies does he have in all?

### Content (the "Meat")

#### **Problem of the Day**

I am the answer to the number sentence 3 + 4 = . What number am I? Explain.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

Today you will introduce this activity and begin with the Fact Family of 4, 9 and 13. Have students write the entire Fact Family on the white board.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



4 + 9 = 13

9 + 4 = 13

13 - 4 = 9

13 - 9 = 4

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 4, 9 and 13.

#### Math Vocabulary

Word for Today: column addition

**Description:** The term column addition refers to the adding of number when you have more than 2 numbers. In a problem it could look like this: 3 + 4 + 2 = 9. Or it could be written this way:

3

4

+2

You add a column in exactly the same way as you add 2 numbers, you just add one or two more numbers. Write several examples of a column addition problem.

Create an entry for "column addition" in your Vocabulary Notebook.

**Vocabulary Notebook Sample:** 

New Word	My Description
column addition	More than two numbers in a vertical space, like a column.
Personal Connection	Drawing
	16
I like to do column addition.	15
	<u>+14</u>

Students will complete this notebook for each vocabulary word that they are given.

It is important to review academic math vocabulary often throughout the day.
Complete the Vocabulary notebook for each word.
When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).
Vocabulary Notebooks can be made from ½ of a

composition book.

# Activity Column Addition

#### Column Addition

A column of numbers is usually 3 to 4 numbers in a vertical column or a horizontal row. Often times we look at addition of two numbers only, for example 7 + 5 or 23 + 6 and so on. In column addition you have problems that look like this: 4 + 5 + 6 = or

5

<u>+6</u>

When adding a column, it is sometimes easier if you can find two addends that equal 10. For example, 4 + 6 = 10, and 10 + 5 = 15. Sometimes you cannot find a 10, so you add each of the numbers.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



#### Tri Add

#### **Directions:**

- 1. Divide students into pairs
- 2. Give each pair 3 dice (6-sided or 9 sided), white boards and pens/crayons
- 3. Player 1 rolls the dice and then create an addition problem on his/her white board
- 4. He/she then finds the total and reads the problem aloud to his partner
- 5. Player 2 then repeats the process
- 6. Activity is over when each player has had the opportunity to write 10 equations.

#### Closing

#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### **Debrief**

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What does it mean when we say we found an answer by addition?

#### Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.





Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun! Lesson #2
Focus:	Addition

**Materials:** 

White boards

dice (3 for each pair)

Cravolas

Socks (for erasers)

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about addition? What do the words, "all together" mean and have to do with addition? What do the words sum, addend, and how many have to do with addition? Please write a number sentence that shows this story: Fred has 3 marbles. He won 9 marbles playing marbles. How many marbles does Fred have altogether?

# Content (the "Meat")

#### **Problem of the Day**

If it takes 3 ants to carry a cookie. How many ants are needed to carry 3 cookies? Draw a picture to explain your thinking.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



**Today** you will introduce this activity and begin with the Fact Family of 4, 6, and 10. Have students write the entire Fact Family on the white board.

4 + 6 = 10

6 + 4 = 10

10 - 4 = 6

10 - 6 = 4

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 4, 6, and 10..

#### **Math Vocabulary**

#### Word for Today: vertical

**Description:** The word vertical means up and down like you are when you stand up straight. The walls of buildings are vertical, trees are verticals, and columns are vertical as well. The opposite of vertical is horizontal which means like you are when you lay down. In your Vocabulary Notebook create the entry for the word "vertical" and with a friend review

and be sure that it captures your understanding of the word.

**Vocabulary Notebook Sample:** 

New Word	My Description
vertical	A line that goes up and down, like when you are standing.
Personal Connection	Drawing
When I walked down the street I was vertical.	

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

Students will complete this notebook for each vocabulary word that they are given.

# Activity Addition

#### **Column Addition**

A column of numbers is usually 3 to 4 numbers in a vertical column or a horizontal row. Often times we look at addition of two numbers only, for example 7 + 5 or 23 + 6 and so on. In column addition you have problems that look like this: 4 + 5 + 6 = or

5 +6

When adding a column, it is sometimes easier if you can find two addends that equal 10. For example, 4 + 6 = 10, and 10 + 5 = 15. Sometimes you cannot find a 10, so you add each of the numbers.

# Tri Add

# **Directions:**

1. Divide students into pairs

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



- 2. Give each pair 3 dice (6-sided or 9 sided), white boards and pens/crayons
- 3. Player 1 rolls the dice and then create an addition problem on his/her white board
- 4. He/she then finds the total and reads the problem aloud to his partner
- 5. Player 2 then repeats the process
- 6. Activity is over when each player has had the opportunity to write 10 equations.

Closing
Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### **Debrief**

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What is a number?

What is a letter?

Are they the same?

#### Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun! Lesson #3
Focus:	Addition

Materials:		
White boards	Activity at the end of the lesson plan	
Crayolas		
Socks		

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

### Gain prior knowledge by asking students the following questions

What do you know about addition? What do the words, "all together" mean and have to do with addition? What do the words sum, addend, and how many have to do with addition? Please write a number sentence that shows this story: Linda has 7 dolls. She got 2 dolls for her birthday. How many dolls does Linda have all together?

Content (the "Meat")	
Problem of the Day  Dan has a card with 5 + 2 = on it. Fred has a card with 3 + 6 = Whose card has the greater sum? How do you know?	
Fact Practice	
Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day.	

They will write the problem in four ways. 1 + 2 = 32 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



**Today** you will introduce this activity and begin with the Fact Family of 4, 7, and 11. Have students write the entire Fact Family on the white board.

4 + 7 = 11

7 + 4 = 1

11 - 4 = 7

11 - 7 = 4

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 4, 7, and 11. Share with students that this fact is a double—the addends are the same.

#### Math Vocabulary

#### Word for Today: horizontal

Description: The term horizontal describes the way you are when you are laying down at night one your bed or when you are laying down on the floor. Roads and streets are horizontal, so are sidewalks and trees when they fall down. Practice drawing a horizontal line. Horizontal is the opposite of vertical.

Have children complete the Vocabulary notebook.

**Vocabulary Notebook Sample:** 

New Word	My Description
horizontal	Horizontal means going across.
	← →
Personal Connection	Drawing
At night I sleep in a horizontal position.	<b>←</b>

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation)

Vocabulary Notebooks can be made from ½ of a composition book

Students will complete this notebook for each vocabulary word that they are given.

# Activity Addition

#### **Column Addition**

A column of numbers is usually 3 to 4 numbers in a vertical column or a horizontal row. Often times we look at addition of two numbers only, for example 7 + 5 or 23 + 6 and so on. In column addition you have problems that look like this: 4 + 5 + 6 = or

4 5 +6

When adding a column, it is sometimes easier if you can find two addends that equal 10. For example, 4 + 6 = 10, and 10 + 5 = 15. Sometimes you cannot find a 10, so you add each of the numbers.

#### Add 'Em

#### **Directions:**

1. Divide students into pairs

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



- 2. Give each pair a Add 'Em Game Board and a deck of cards
- 3. Shuffle the cards
- 4. Player 1 turns up the first card and finds the sum of the three numbers. He/she then locates the answer on the game board and places a marker on it
- 5. Player two then repeats the process
- 6. Game is over when all spots are covered.

Closing	
Review	
Say:	
Please recap what we did today.	
Did we achieve our objectives?	
Debrief	
What did you like about what we did today in math?	
What would you like to do more of the next time we do math?	
What is a cylinder?	
Where can you see them in the world?	

## Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.



## 1st Grade Add 'Em

10	14	15	16	15	11	16
17		12				
12	Add "Em  Draw an "Add 'Em" card and calculate the total of the digits.  Find the answer on the game board and place a marker on it.  Students may use a white board to draw the problems so they can count the items.					18
19						14
20						16
18						13
17	15	18	15	15	16	19



## 1st Grade Add 'Em Cards

5	7	8	9
3	3	4	5
<u>+2</u>	<u>+4</u>	+3	<u>+2</u>
6	8	9	8
2	2	3	7
<u>+7</u>	<u>+1</u>	<u>+4</u>	<u>+2</u>
5	6	7	9
4	5	6	6
<u>+3</u>	<u>+1</u>	<u>+5</u>	<u>+4</u>
6	7	8	9
3	4	5	7
<u>+5</u>	<u>+9</u>	<u>+3</u>	<u>+2</u>
7	8	9	9
2	3	4	8
<u>+4</u>	<u>+6</u>	<u>+2</u>	<u>+1</u>
6	7	8	9
4	5	6	9
<u>+5</u>	<u>+3</u>	<u>+2</u>	<u>+1</u>



Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun! Lesson #4
Focus:	Addition

Materials:

White boards decks of cards with face cards and jokers removed

Crayolas Activity at the end of the lesson plan

Socks (for erasers)

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about addition? What do the words, "all together" mean and have to do with addition? What do the words sum, addend, and how many have to do with addition? Please write a number sentence that shows this story: Joe has 3 ice cream bars. Frank has 5 ice cream bars. Luis has 2 ice cream bars. How many ice cream bars do the boys have all together?

#### Content (the "Meat")

#### **Problem of the Day**

Copy and complete the list of numbers. How do you know what the missing numbers are?

5, 10, 15, 20, \_\_\_\_, \_\_\_, \_\_\_\_

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)

They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and

# \*Activity → Teachable Moment(s) throughout

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 4, 8 and 12. Have students write the entire Fact Family on the white board.

4 + 8 = 12

8 + 4 = 12

12 - 4 = 8

12 - 8 = 4

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 4, 8, and 12...

#### Math Vocabulary

#### Word for Today: sum

**Description**: The term sum is the word we use to talk about the answer in an addition problem. When you ad the number 3 + 2 you will have a total of 5. This total is a sum. What is the sum in this problem: 5 + 1 = 6? What is the sum in this problem 3 + 4 + 1 + 8? Complete an entry for sum in your Vocabulary Notebook.

**Vocabulary Notebook Sample:** 

New Word	My Description
sum	Add it up and get the sum
Personal Connection	Drawing
9 is the sum of 6 + 3.	3+6=9

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

Students will complete this notebook for each vocabulary word that they are given.

### Activity Addition

#### **Column Addition**

A column of numbers is usually 3 to 4 numbers in a vertical column or a horizontal row. Often times we look at addition of two numbers only, for example 7 + 5 or 23 + 6 and so on. In column addition you have problems that look like this: 4 + 5 + 6 = or

5 +6

When adding a column, it is sometimes easier if you can find two addends that equal 10. For example, 4 + 6 = 10, and 10 + 5 = 15. Sometimes you cannot find a 10, so you add each of the numbers.

#### Add 'Em

#### **Directions:**

- 1. Divide students into pairs
- 2. Give each pair a Add 'Em Game Board and a deck of cards

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



- 3. Shuffle the cards
- 4. Player 1 turns up the first card and finds the sum of the three numbers. He/she then locates the answer on the game board and places a marker on it
- 5. Player two then repeats the process
- 6. Game is over when all spots are covered.

Closing
Review
ау:
Please recap what we did today.
Did we achieve our objectives?
Debrief
/hat did you like about what we did today in math?
ow can you use the information from today in school tomorrow?

### Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



## 1st Grade Add 'Em

10	14	15	16	15	11	16
17		12				
12	Add "Em  Draw an "Add 'Em" card and calculate the total of the digits.  Find the answer on the game board and place a marker on it.  Students may use a white board to draw the problems so they can count the items.					18
19						14
20						16
18						13
17	15	18	15	15	16	19



## 1st Grade Add 'Em Cards

5	7	8	9
3	3	4	5
<u>+2</u>	<u>+4</u>	+3	<u>+2</u>
6	8	9	8
2	2	3	7
<u>+7</u>	<u>+1</u>	<u>+4</u>	<u>+2</u>
5	6	7	9
4	5	6	6
<u>+3</u>	<u>+1</u>	<u>+5</u>	<u>+4</u>
6	7	8	9
3	4	5	7
<u>+5</u>	<u>+9</u>	<u>+3</u>	<u>+2</u>
7	8	9	9
2	3	4	8
<u>+4</u>	<u>+6</u>	<u>+2</u>	<u>+1</u>
6	7	8	9
4	5	6	9
<u>+5</u>	<u>+3</u>	<u>+2</u>	<u>+1</u>



Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun! Lesson #5
Focus:	Word Problems

Materials:	
White boards	Activity at the end of this lesson plan
Crayolas	
Socks (for erasers)	

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about word or story problems? Many times when we do the "problem of the day" we have a story that goes with the math. When we do the math we a number sentence. What are some of the key words that you will find in word problems? How do these words help you know what to do?

Content (the "Meat")	
Problem of the Day  Tell whether the number 10 makes each sentence true. Tell how you know for each.	*Act
5 + 5 =	During
6 + 3 = 3 + 7 =	with stu
4 + 6 =	happen

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)

They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5th day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look

### ctivity -> Teachable ment(s) throughout

the lesson check in tudents repeatedly.

in about what is ning and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 4, 5, and 9. Have students write the entire Fact Family on the white board.

4 + 5 = 9

5 + 4 = 0

9 - 4 = 5

9 - 5 = 4

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 4, 5 and 9.

#### Math Vocabulary

#### Word for today: context

**Description**: The term context refers to the words in a story problem that tell you the story that is represented in a number sentence. Context gives you a look at what was going on and hopefully will make the picture of the math more clear in your mind. Context is used to help you understand.

Have children complete the vocabulary notebook for the word context.

Vocabulary Notebook Sample:

New Word	My Description
context	Words that surround other words and help you make sense of it
Personal Connection	Drawing
The story problem is the context for the number sentence 3 + 5 = 8.	eraser 3 + 5 = 8 total in all

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation). Vocabulary Notebooks can be made from ½ of a

composition book.

### **Activity Word Problems**

#### **Word Problems:**

A word problem is a story that has math in it. When you hear a story problem you can write a number sentence to represent the math. An example of a story problem follows: Jorge had 7 cookies. His mother gave him 5 more. How many cookies does Jorge have now? A number sentence would look like this: 7 cookies + 5 cookies = 12 cookies. There are clues in the story. Words like now or all together tell us that we will add. If the word problem went like this: Jorge had 7 cookies. His mother ate 5 of them. How many cookies does Jorge have left? would tell us that the number sentence needs to look like this 7 - 5 = 2. When we work with word problems it is important to think about what question we are being asked. This makes it easier to know whether or not we add or subtract.

#### **Story Problems Directions:**

Divide students into trios

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



- 2. Give each trio a Word Problem Card and an Answer Board
- 3. Working together, trios read the problem and write a number sentence and solve the problem.
- 4. The trio then looks to the Answer Board to be sure that there is an answer like the one they found.

Activity is complete when all problems have been solved.

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**Review** 

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### **Debrief**

What did you like about what we did today in math?

What would you like to do more of next time?

What are the different shapes that you made with the marshmallows and toothpicks

Where can you find those shapes in the world?

#### Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



## 1st Grade Story Problems Card

There are 3 blue blocks and 5 red blocks. How many blocks are there in all?

Martin has 7 pencils. He gives 2 to a friend. How many pencils does Martin have left?

Joni is the only person swimming in the pool. 4 of her friends join her in the pool. How many people are swimming in the pool?

Ed has 10 cookies. He gives 3 to his teacher. How many does Ed have left?

Annie picked 3 tulips and 6 roses. How many flowers does Annie have all together?

Seth has 3 toy cars. His friend Abel has 7 toy cars. How many cars do they have altogether?

Ellie has 2 dogs. Mary has 5 dogs. How many dogs do they have altogether?

Will has 2 skates. His brother has 6 skates. How many skates do the have together?

Aaron has 2 fish. His brother gets him 5 fish for his birthday. How many fish does Aaron have now?

Nathan has 8 dogs. Tony takes 3 of the dogs on a walk. How many dogs does Nathan have now?

John has 6 green jelly beans, 4 red jelly beans and 2 yellow jelly beans. How many jelly beans does John have altogether?

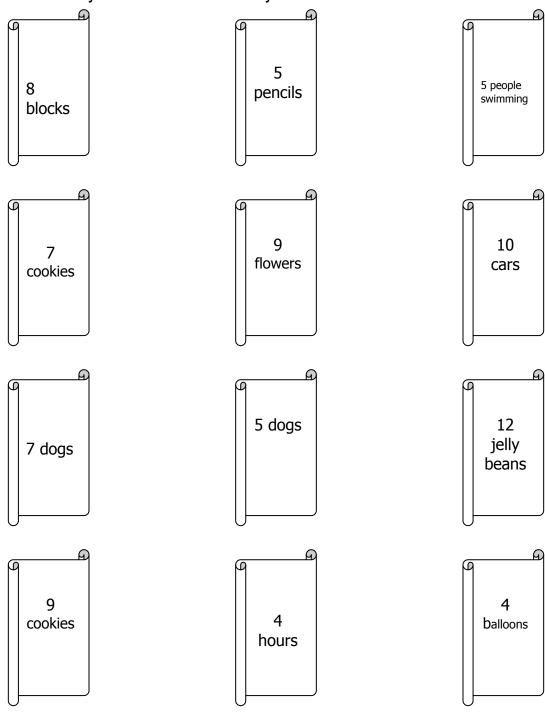
Lori has 3 chocolate chip cookies, 1 sugar cookie, and 5 Snicker Doodles. How many cookies does Lori have altogether?

It took Julia 2 hours to clean her bedroom. It took her 2 hours to finish her homework. How much time has Julia used to complete these two activities?

Lily got 9 balloons for her birthday. 5 of the balloons popped. How many balloons does Lily have left?



## 1st Grade Story Problems Answer Key





Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun! Lesson #6
Focus:	Word Problems

#### **Opening**

### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about word or story problems? Many times when we do the "problem of the day" we have a story that goes with the math. When we do the math we a number sentence. What are some of the key words that you will find in word problems? How do these words help you know what to do?

#### Content (the "Meat")

#### **Problem of the Day**

Jill has 10 red crayons and 3 green crayons in a box. She takes a crayon out of the box without looking. Which color is she more likely to pull out? How do you know?

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



**Today** you will introduce this activity and begin with the Fact Family of 5, 6 and 11. Have students write the entire Fact Family on the white board.

5 + 6 = 11

6 + 5 = 11

11 - 5 = 6

11 - 6 = 5

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 5, 6, and 11.

#### Math Vocabulary

#### Word for today: number sentence

**Description:** The term number sentence refers to the problem that we write that demonstrates the math for the story we read. A number sentence can look like this: 4 + 5 = 9. The story might be John has 4 marbles. His mother gives him 5 marbles. How many marbles does John have altogether? Write a number sentence for this story: Judy has 3 flowers. She is given 5 more flowers. How many flowers does she have altogether? Create an entry in your Vocabulary Notebook for the word number sentence.

**Vocabulary Notebook Sample:** 

New Word	My Description
number sentence	Number sentences tell you how numbers are related
Personal Connection	Drawing
If John has 2 pencils and Jill has 3 pencils, they have 5 pencils. This is the number sentence: 2 + 3 = 5	2+3=5

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation). Vocabulary Notebooks can be made from ½ of a composition book.

# Activity Word Problems

#### Word Problems:

A word problem is a story that has math in it. When you hear a story problem you can write a number sentence to represent the math. An example of a story problem follows: Jorge had 7 cookies. His mother gave him 5 more. How many cookies does Jorge have now? A number sentence would look like this: 7 cookies + 5 cookies = 12 cookies. There are clues in the story. Words like now or all together tell us that we will add. If the word problem went like this: Jorge had 7 cookies. His mother ate 5 of them. How many cookies does Jorge have left? would tell us that the number sentence needs to look like this 7 - 5 = 2. When we work with word problems it is important to think about what question we are being asked. This makes it easier to know whether or not we add or subtract.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



### **Story Problems**

#### **Directions:**

- 1. Divide students into trios
- 2. Give each trio a Word Problem Card and an Answer Board
- 3. Working together, trios read the problem and write a number sentence and solve the problem.
- 4. The trio then looks to the Answer Board to be sure that there is an answer like the one they found.
- 5. Activity is complete when all problems have been solved.

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#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### **Debrief**

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What are the different shapes that you made with the marshmallows and toothpicks

Where can you find those shapes in the world?

#### Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.



## 1st Grade Story Problems Card

There are 3 blue blocks and 5 red blocks. How many blocks are there in all?

Martin has 7 pencils. He gives 2 to a friend. How many pencils does Martin have left?

Joni is the only person swimming in the pool. 4 of her friends join her in the pool. How many people are swimming in the pool?

Ed has 10 cookies. He gives 3 to his teacher. How many does Ed have left?

Annie picked 3 tulips and 6 roses. How many flowers does Annie have all together?

Seth has 3 toy cars. His friend Abel has 7 toy cars. How many cars do they have altogether?

Ellie has 2 dogs. Mary has 5 dogs. How many dogs do they have altogether?

Will has 2 skates. His brother has 6 skates. How many skates do the have together?

Aaron has 2 fish. His brother gets him 5 fish for his birthday. How many fish does Aaron have now?

Nathan has 8 dogs. Tony takes 3 of the dogs on a walk. How many dogs does Nathan have now?

John has 6 green jelly beans, 4 red jelly beans and 2 yellow jelly beans. How many jelly beans does John have altogether?

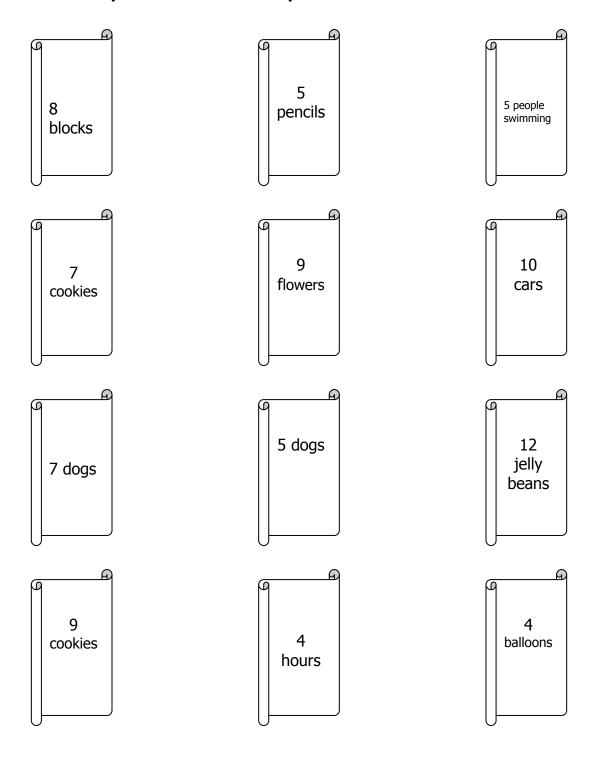
Lori has 3 chocolate chip cookies, 1 sugar cookie, and 5 Snicker Doodles. How many cookies does Lori have altogether?

It took Julia 2 hours to clean her bedroom. It took her 2 hours to finish her homework. How much time has Julia used to complete these two activities?

Lily got 9 balloons for her birthday. 5 of the balloons popped. How many balloons does Lily have left?



## 1st Grade Story Problems Answer Key





Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun! Lesson #7
Focus:	Word Problems

Materials:

White boards

Activity at the end of this lesson plan

Crayolas

Socks (use as erasers)

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

### Gain prior knowledge by asking students the following questions

What do you know about word or story problems? Many times when we do the "problem of the day" we have a story that goes with the math. When we do the math we a number sentence. What are some of the key words that you will find in word problems? How do these words help you know what to do?

#### Content (the "Meat")

#### **Problem of the Day**

Look at the numbers below. Which is an even number? Explain how you know.

3 17 6 15

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)

They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



**Today** you will introduce this activity and begin with the Fact Family of 5, 7, and 12. Have students write the entire Fact Family on the white board.

5 + 7 = 12

7 + 5 = 12

12 - 5 = 7

12 - 7 = 5

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 85, 7 and 12.

#### **Math Vocabulary**

#### Word for Today: how many

**Description**: The term how many is used in a word problem to let the reader know that this is asking you to perform a mathematical operation. If it is combined with the word left, reading how many left—this is a clue for you to subtract. If it is combined with the word altogether, then this is a clue for you to add. How many is a question and the others words let you know what kind of an answer is needed.

Have children revisit the entry in the Vocabulary Notebook for the word **how many**.

**Vocabulary Notebook Sample:** 

New Word	My Description
how many	Term used in a word problem that lets you know to add
Personal Connection	Drawing
If I have 4 balloons and you have 3 balloons, how many do we have together?	

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

## Activity Word Problems

#### Word Problems:

A word problem is a story that has math in it. When you hear a story problem you can write a number sentence to represent the math. An example of a story problem follows: Jorge had 7 cookies. His mother gave him 5 more. How many cookies does Jorge have now? A number sentence would look like this: 7 cookies + 5 cookies = 12 cookies. There are clues in the story. Words like now or all together tell us that we will add. If the word problem went like this: Jorge had 7 cookies. His mother ate 5 of them. How many cookies does Jorge have left? would tell us that the number sentence needs to look like this 7 - 5 = 2. When we work with word problems it is important to think about what question we are being asked. This makes it easier to know whether or not we add or subtract.

Today we are going to work on writing stories to go with number sentences. For example if you read the number sentence: 7 - 5 = 2, you would need to make up a story such as, Jorge has 7 balloons. 5 of them popped. How many does he have left? Do several

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



examples with the students on the board.

# Number Sentences to Stories #1 Directions:

- Divide students into trios
- 2. Give each trio a Number Sentence Card
- 3. Together, students work out stories for each of the number sentences that they find on the card.
- 4. Students may write or draw the stories.
- 5. After students have created stories for the 8 number sentences, bring group together to share the stories for the different number sentences.

	Closing
	Review
Say:	
Please recap what we did today.	
<ul> <li>Did we achieve our objectives?</li> </ul>	
	Debrief
What did you like about today's lesson?	
How can you use the information from today during clas	ss tomorrow?

#### Reflection (Confirm, Tweak, Aha!)

What is one key learning you had today in math?

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



1st Grade Number Sentence Cards # 1

$$7 - 3 = 4$$

$$6 + 2 = 8$$

$$7-3=4$$
  $6+2=8$   $4+7=11$   $7-5=2$ 

$$7 - 5 = 2$$

$$10 - 6 = 4$$

$$10 - 6 = 4$$
  $9 - 3 = 6$   $8 - 1 = 7$ 



Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun! Lesson #8
Focus:	Word Problems

Materials:		
White boards	Activity at the end of the lesson plan	
Crayolas		
Socks		

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

### Gain prior knowledge by asking students the following questions

What do you know about word or story problems? Many times when we do the "problem of the day" we have a story that goes with the math. When we do the math we a number sentence. What are some of the key words that you will find in word problems? How do these words help you know what to do?

#### Content (the "Meat")

#### **Problem of the Day**

Write a number sentence with a sum of 9. Use pictures, numbers, and words to show your thinking.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)

They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 5, 8, and 13.

## \*Activity → Teachable Moment(s) throughout

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



Have students write the entire Fact Family on the white board.

5 + 8 = 13

8 + 5 = 13

13 - 5 = 8

13 - 8 = 5

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 5, 8, and 13. Ask students to give you examples of other doubles. Ask students to tell how doubles are different than other fact families.

#### Math Vocabulary

Word for Today: difference

**Description**: The term difference is the word we use to describe the answer to a subtraction problem. The word is difference because it is very descriptive of the operation of subtraction. You start with a total, take some items away, and what you have left is the difference. Look at this problem: 7-5 = 2. The difference is 2.

Create an entry in your Vocabulary Notebook for the word difference.

**Vocabulary Notebook Sample:** 

New Word	My Description
difference	In subtraction the amount you have left when you subtract
Personal Connection	Drawing
The difference of 12 – 4 is 8. In other words, 12 is 4 more than 8 or 8 more than 4.	12-4-8

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

# Activity Word Problems

A word problem is a story that has math in it. When you hear a story problem you can write a number sentence to represent the math. An example of a story problem follows: Jorge had 7 cookies. His mother gave him 5 more. How many cookies does Jorge have now? A number sentence would look like this: 7 cookies + 5 cookies = 12 cookies. There are clues in the story. Words like now or all together tell us that we will add. If the word problem went like this: Jorge had 7 cookies. His mother ate 5 of them. How many cookies does Jorge have left? would tell us that the number sentence needs to look like this 7 - 5 = 2. When we work with word problems it is important to think about what question we are being asked. This makes it easier to know whether or not we add or subtract.

Today we are going to work on writing stories to go with number sentences. For example if you read the number sentence: 7 - 5 = 2, you would need to make up a story such as, Jorge has 7 balloons. 5 of them popped. How many does he have left? Do several examples with the students on the board.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



## Number Sentences to Stories #2 Directions:

- 1. Divide students into trios
- 2. Give each trio a Number Sentence Card
- 3. Together, students work out stories for each of the number sentences that they find on the card.
- 4. Students may write or draw the stories.
- 5. After students have created stories for the 8 number sentences, bring group together to share the stories for the different number sentences.

Closing
Review
Say:
Please recap what we did today.
Did we achieve our objectives?
Debrief
What did you like about what we did today in math?
What would you like to do more of the next time we do math?
Give an example of how you will use what we did today in school tomorrow.

#### Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



1st Grade Number Sentence Cards # 2

$$11 + 3 = 14$$

$$6 - 3 = 3$$

$$4 + 2 + 6 = 12$$

$$11 + 3 = 14$$
  $6 - 3 = 3$   $4 + 2 + 6 = 12$   $5 + 4 + 2 = 11$ 

$$8 - 3 = 5$$

$$9 - 5 = 4$$

$$9-5=4$$
  $8+3=11$   $7-2=5$ 

$$7 - 2 = 5$$



Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun! Lesson #9
Focus:	Addition problems

Materials:
White boards
Cravolas

Activity at the end of the lesson plan

Socks (for erasers)

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Focus Student's Prior Knowledge

What do you know about addition? What do you call an answer to an addition problem? How many numbers can you add together in an addition problem? (unlimited). What is the opposite of addition? When you add do you end up with more than you started with or less than you started with? Give an example of an addition problem.

#### Content (the "Meat")

#### **Problem of the Day**

Draw 4 groups of 4 apples. How many apples are there in all? Use your picture to explain.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 6, 9 and 15.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



Have students write the entire Fact Family on the white board.

6 + 9 = 15

9 + 6 = 15

15 - 6 = 9

15 - 9 = 6

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 6, 9 and 15.

#### **Math Vocabulary**

#### Word for Today: addend

**Description:** The term addend is a word that we use to describe the numbers that we add together in an addition problem. In the problem 5 + 6 = 11, 5 and 6 are the addends. What are the addends in these two problems: 3 + 2 = 5 or 6 + 3 = 9.

Have children review the Vocabulary notebook for the word addend.

Vocabulary Notebook Sample:

New Word	My Description
addend	The two or more numbers that you add together are the addends
Personal Connection	Drawing
In the number sentence 6 + 4 = 10, the 6 and the 4 are addends. That is how old I am.	6+4

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

## Activity Addition

#### **Addition Problems**

Sometimes addition problems have more than one digit in the numbers you are adding. For example, a problem might be something like this:

12

+ 7

The story behind the problem might be that Nancy had 12 eggs and then purchased 7 more. How many eggs does she have now?

It is important to learn how to add problems like this.

## Add Them Up

#### **Directions:**

- 1. Divide students in pairs
- 2. Give each pair as set of Add Them Up Cards and Game Board, a white board, pens/crayons
- 3. Shuffle the cards and put them to the right of the game board

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



- 4. Player 1 draws a card, completes the addition and then finds the answer on the Game Board and covers it with a marker
- 5. Player 2 repeats the process
- 6. Game is over when all of the answers are covered.

	Closing	
	Review	
Say:		
<ul><li>Please recap what we did today.</li><li>Did we achieve our objectives?</li></ul>		
Did we achieve our objectives?		
	Debrief	
What did you like about what we did today in math?		
What is a cube?		
How many sides does a cube have?		
•		

### Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.



## 1st Grade Add Them Up

12	14	15	17	22
<u>+7</u>	<u>+4</u>	<u>+2</u>	<u>+1</u>	<u>+6</u>
24	26	27	31	33
<u>+3</u>	<u>+3</u>	<u>+2</u>	<u>+8</u>	<u>+2</u>
34	37	40	43	45
<u>+5</u>	<u>+ 1</u>	<u>+8</u>	<u>+2</u>	<u>+1</u>
53	52	56	60	61
<u>+5</u>	<u>+3</u>	<u>+1</u>	<u>+4</u>	<u>+7</u>
62	71	72	77	81
<u>+1</u>	<u>+6</u>	<u>+4</u>	<u>+2</u>	<u>+8</u>
84	87	90	91	93
<u>+3</u>	<u>+1</u>	<u>+9</u>	<u>+6</u>	<u>+3</u>



## 1st Grade Add Them Up Game Board

19	39	55	89	18
35	57	87	17	39
64	88	18	38	68
99	28	48	63	97
27	45	77	96	29
29	46	58	76	79



Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun! Lesson #10
Focus:	Addition

Materials:

White boards

Activity at the end of the lesson plan

Crayolas

Socks (use as erasers)

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about addition? What do you call an answer to an addition problem? How many numbers can you add together in an addition problem? (unlimited). What is the opposite of addition? When you add do you end up with more than you started with or less than you started with?

### Content (the "Meat")

#### **Problem of the Day**

Joan has 11 books. She gives 5 to a friend. How many books does she have left?

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 6, 7 and 13.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.

When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



Have students write the entire Fact Family on the white board.

6 + 7 = 13

7 + 6 = 13

13 - 6 = 7

13 - 7 = 6

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 6, 7, and 13

#### **Math Vocabulary**

#### Word for today: minus

**Description:** Minus is a term we use in a subtraction problem. It tells you to take something away from the total. When you minus something, you take away something. Minus is a word that means you are reducing something.

Review the entry for the word minus that is in your Vocabulary notebook.

#### **Vocabulary Notebook Sample:**

New Word minus	My Description  Subtraction, take away, difference are terms that go with the word minus which means less that it was to begin with	right ar acting Vocab be made compo
Personal Connection	Drawing	
I had twelve rocks and I gave 2 away, so now I have 10. Ten is the difference of 12 minus 2.	12 - 2 = 10	

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

# Activity Addition

#### **Addition Problems**

Sometimes addition problems have more than one digit in the numbers you are adding. For example, a problem might be something like this:

12 + 7

The story behind the problem might be that Nancy had 12 eggs and then purchased 7 more. How many eggs does she have now?

It is important to learn how to add problems like this.

## Add Them Up

### **Directions:**

- 1. Divide students in pairs
- Give each pair as set of Add Them Up Cards and Game Board, a white board, pens/crayons
- 3. Shuffle the cards and put them to the right of the game board
- 4. Player 1 draws a card, completes the addition and then finds the answer on the Game

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



Board and covers it with a marker

5. Player 2 repeats the process

6. Game is over when all of the answers are covered.

	Closing
	Review
Say:	
<ul><li>Please recap what we did today.</li><li>Did we achieve our objectives?</li></ul>	
	Debrief
What did you like about what we did today in math?	
What do you know about a calendar?	
What are the names of the month?	
What are the names of the days of the week?	

### Reflection (Confirm, Tweak, Aha!)

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



## 1st Grade Add Them Up

12	14	15	17	22
<u>+7</u>	<u>+4</u>	<u>+2</u>	<u>+1</u>	<u>+6</u>
24	26	27	31	33
<u>+3</u>	<u>+3</u>	<u>+2</u>	<u>+8</u>	<u>+2</u>
34	37	40	43	45
<u>+5</u>	<u>+ 1</u>	<u>+8</u>	<u>+2</u>	<u>+1</u>
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<u>+1</u>	<u>+6</u>	<u>+4</u>	<u>+2</u>	<u>+8</u>
84	87	90	91	93
<u>+3</u>	<u>+1</u>	<u>+9</u>	<u>+6</u>	<u>+3</u>



## 1st Grade Add Them Up Game Board

19	39	55	89	18
35	57	87	17	39
64	88	18	38	68
99	28	48	63	97
27	45	77	96	29
29	46	58	76	79



Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun!
Focus:	Review

Materials:

White boards

Materials for games played the past 10 days

Crayolas

Socks (use for erasers)

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

Ask children what they know about addition. Ask them to share what they do to write number sentences? Ask them about story problems and how they connect to number sentences?

#### Content (the "Meat")

#### **Problem of the Day**

If Joe went to the park at 2:00 and he plays for 2 hours. What time is it when he goes home?

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 6, 8 and 14. Have students write the entire Fact Family on the white board.

$$6 + 8 = 14$$

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



8 + 6 = 14

14 - 6 = 8

14 - 8 = 6

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 6, 8 and 14.

**Activity** 

Today is review day. Students will be able to select from the Fraction Games you played for the last 10 days. Ask students to select from:

Tri Add Add 'Em Story Problems Number Sentence Stories Add Them Up Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

	Closing
	Review
Say:	
Please recap what we did today.	
<ul> <li>Did we achieve our objectives?</li> </ul>	
	Debrief
Which of the games did you enjoy playing the most?	
What about this game is fun for you?	

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component	Math
Grade Level:	First Grade
Lesson Title:	This Is The Sum
Focus:	Addition

Materials: White boards

dice (3 for each pair)

Crayolas

Socks (for erasers)

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

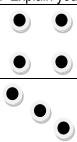
#### Gain prior knowledge by asking students the following questions

What do you know about addition? What do the words, "all together" mean and have to do with addition? What do the words sum, addend, and how many have to do with addition? Please write a number sentence that shows this story: Jorge has 5 marbles. He wins 4 marbles. How many does he have altogether?

#### Content (the "Meat")

#### **Problem of the Day**

Look at the domino below. Write a number sentence to show how many dots are on the domino. Explain your answer.



#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)

They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5th day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

Today you will introduce this activity and begin with the Fact Family of 3, 7, and 10. Have students write the entire Fact Family on the white board.

- 3 + 7 = 10
- 7 + 3 = 1
- 10 3 + 7
- 10 7 = 3

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 3, 7, and 10.

#### **Math Vocabulary**

Word for Today: plus

**Description:** The term plus means addition. It means that you have something to start with and you are going to add something to it. When we read an addition problem we say 5 plus 4 equals 9. We write it this way: 5 + 4 = 9.

Create an entry for "plus" in your Vocabulary Notebook. Talk with a partner about what this word means. Use it in a sentence.

#### **Vocabulary Notebook Sample:**

New Word	My Description
plus	Adding two things together is done when you say this plus this
Personal Connection	Drawing
It is easier to do a plus problem than a minus problem	

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

Students will complete this notebook for each vocabulary word that they are given.

#### **Activity** Addition

#### Addition

Addition is the math operation that has you combine two numbers or two groups of items. For example if you have the following:

$\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$	$\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$
$\odot$	$\odot \odot \odot \odot$

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



you could simply count the happy faces. Or you count the number of faces in the first box (6) and the number in the second box (8), and write the math problem 6 + 8 =or

6

+8

No matter which way you do the problem, the total number of happy faces is 14. If students are struggling with addition problems, they should draw the problem. This obviously becomes cumbersome when the numbers are large, but can be helpful when learning the process.

Work 8-10 problems on the board with the students. Encourage students to complete the problems on their own white board, showing the answers that he/she has.

#### This Is The Sum

#### **Directions:**

- 1. Divide students into pairs.
- 2. Give each pair a deck of cards with face cards, jokers, and 10s removed, and a white board.
- 3. Shuffle the cards and deal them out equally to the two players.
- 4. Player places his/her cards face down in front of him/her.
- 5. Each player turns over a card and the pair writes the equation on the white board with the correct total.
- 6. Play is over when pair has 15 problems.

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#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What does it mean when we say we found an answer by addition?

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component	Math
Grade Level:	First Grade
Lesson Title:	This Is The Sum
Focus:	Addition

Materials:

White boards

dice (3 for each pair)

Crayolas

Socks (for erasers)

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about addition? What do the words, "all together" mean and have to do with addition? What do the words sum, addend, and how many have to do with addition? Please write a number sentence that shows this story: Joni has 5 bows for her hair. Lori has 9 bows. How many bows do they have together?

#### Content (the "Meat")

#### **Problem of the Day**

If John has 10 red crayons and 2 blue crayons in a baggie and without looking he reaches in and takes out one of the crayons, what color is he most likely to pull out? How do you know?

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

## \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



**Today** you will introduce this activity and begin with the Fact Family of 4, 7, and 11. Have students write the entire Fact Family on the white board.

4 + 7 = 11

7 + 4 = 11

11 - 4 = 7

11 - 7 = 4

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 4, 7 and 11.

#### **Math Vocabulary**

#### Word for Today: equal

**Description:** The term equal means that two things have the same value. 3 + 6 has the same value as 4 + 5. Both of these equations equal 9. An equal sign is two short lines written one on top of the other. The symbol signals that two things are the same.

**Vocabulary Notebook Sample:** 

New Word	My Description
equal	5 + 3 and 6 + 2 have equal value
Personal Connection	Drawing
These two sums are equal.	

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can

be made from ½ of a composition book.

Students will complete this notebook for each vocabulary word that they are given.

## Activity Addition

#### Addition

Addition is the math operation that has you combine two numbers or two groups of items. For example if you have the following:



you could simply count the happy faces. Or you count the number of faces in the first box (6) and the number in the second box (8), and write the math problem 6 + 8 =or

0 8+

No matter which way you do the problem, the total number of happy faces is 14. If students are struggling with addition problems, they should draw the problem. This obviously becomes cumbersome when the numbers are large, but can be helpful when learning the process.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



Work 8-10 problems on the board with the students. Encourage students to complete the problems on their own white board, showing the answers that he/she has.

## This Is The Sum Directions:

- 1. Divide students into pairs.
- 2. Give each pair a deck of cards with face cards, jokers, and 10s removed, and a white board.
- 3. Shuffle the cards and deal them out equally to the two players.
- 4. Player places his/her cards face down in front of him/her.
- 5. Each player turns over a card and the pair writes the equation on the white board with the correct total.
- 6. Play is over when pair has 15 problems.

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#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### **Debrief**

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What is a number?

What is a letter?

Are they the same?

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component	Math
Grade Level:	First Grade
Lesson Title:	What's the Difference?
Focus:	Subtraction

Materials:		
White boards	Activity at the end of the lesson plan	
Crayolas		
Socks		

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about subtraction? What do you call the answer to a subtraction problem? There is a sign that indicates subtraction. What do you call that sign? How do the words "take away" and "minus" used in a subtraction problem? What strategies do you used to subtract?

#### Content (the "Meat")

#### **Problem of the Day**

Joe has 9 cookies. He eats 3 cookies. How many cookies does he have left? Explain your answer.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 5, 7, and 12.

## \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



Have students write the entire Fact Family on the white board.

5 + 7 = 12

7 + 5= 12

12 - 5 = 7

12 - 7 = 5

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 5, 7, and 12. Share with students that this fact is a double—the addends are the same.

#### **Math Vocabulary**

#### Word for Today: minus

Description: The term minus refers to the sign that indicates you need to subtract. It is a straight line. When you minus one number from another, you make the larger number less by the second number that you say after the word minus. We would read a math problem like this: 5 minus 3 equals 2. We would write it 5 - 3 = 2

Have children complete the Vocabulary notebook.

**Vocabulary Notebook Sample:** 

New Word	My Description
minus	Minus means to make less by a certain number
Personal Connection	Drawing
I am 8 years old. My brother is 3. 8 – 3 = 5, and I am 5 years older.	minus

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation)

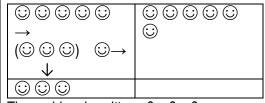
Vocabulary Notebooks can be made from ½ of a composition book

Students will complete this notebook for each vocabulary word that they are given.

## Activity Subtraction

#### Subtraction

Subtraction is a math operation that begins with a total number and then removes part of that total. The difference is what is left AFTER you have removed a certain number of objects. If you start with 9 happy faces and you remove 6 happy faces (the number being placed in the second box, the subtraction problem will tell you how many are left in the first box.



The problem is written: 9 - 6 = 3 or

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



9 -6 3

Subtraction is the reciprocal of addition. Instead of trying to find the total, you know the total and are trying to find the difference in the total if you remove several of the objects from the group.

Rather than demonstrating this with white boards and erasing objects, have the students use small Post-Its. Draw a circle on the white board. Ask students to give you a number of Post-Its to use under 20. Place that number of Post-Its in the circle. Count them and write the number under the circle. Draw a second circle to the right of the first, and ask students how many of the Post-Its from the first circle they would like to move to the second circle. Physically move those Post-Its and write the number underneath the second circle. Now ask the students how many Post-Its are left in the original circle. This then becomes the difference. Write each of the subtraction problems in the horizontal and vertical form after you have done the manipulation with the Post-Its.

#### What's The Difference?

#### **Directions:**

- 1. Divide students into pairs.
- 2. Give each pair a What's The Difference Problem Board and piece of blank paper. (Note: If you want to use the game board more than one, laminate or put in a sheet protector)
- 3. Have students fold the paper until they have 8 spaces on one side and 8 on the other. (This will become the paper they write the problems on.)
- 4. Working together, the pair follows the directions on the Problem Board and then writes the subtraction problem on the blank paper, one problem per box.
- 5. When pair is finished, they share their problems with another pair and compare.

#### Closing

#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What is a cylinder?

Where can you see them in the world?

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)



- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



## 1st Grade What's The Difference

Cross out 4 hearts	Cross out 3 happy faces	Cross out 2 suns	Cross out 5 spades	
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Write the problem	Write the problem	Write the problem	◆ ◆ ◆ ◆ ◆ Write the problem	
Cross out 0 hearts	Cross out 8 happy faces	Cross out 7 suns	Cross out 8 spades	
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Write the problem	Write the problem	Write the problem	Write the problem	
Cross out 5 hearts	Cross out 6 happy faces	Cross out 1 sun	Cross our 6 spades	
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* * *		* * * *	* * * * *	
Write the problem	Write the problem	Write the problem	Write the problem	
Cross out 9 hearts	Cross out 4 happy faces	Cross out 8 suns	Cross out 3 spades	
* * * * *	00000	* * * * *	* * * * *	
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Write the problem	Write the problem	Write the problem	write the problem	



Component	Math
Grade Level:	First Grade
Lesson Title:	What's The Difference?
Focus:	Subtraction

Materials:

White boards decks of cards with face cards and jokers removed

Crayolas Activity at the end of the lesson plan

Socks (for erasers)

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about subtraction? What does the word, "minus" mean and have to do with subtraction? What do the words difference and take away have to do with subtraction? Please write a number sentence that shows this story: Joe has 8 ice cream bars. Frank ate 3 of the ice cream bars. How many ice cream bars does Joe have left?

#### Content (the "Meat")

#### Problem of the Day

Look at the following 4 problems. How many of them have the same sum? How do you know?

5 + 5 =

6 + 4 =

3 + 6 =

8 + 2 =

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 0 0

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say,

"If 1 + 2 = 3. then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1".

## \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 6, 7, and 13. Have students write the entire Fact Family on the white board.

6 + 7 = 13

7 + 6 = 13

13 - 6 = 7

13 - 7 = 6

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 6, 7, and 13.

#### Math Vocabulary

Word for Today: difference

**Description**: The term difference is the word we use to talk about the answer in an subtraction problem. When you subtract the numbers 9 - 6 you will have a difference of 3. This answer is the difference. Complete an entry for sum in your Vocabulary Notebook.

**Vocabulary Notebook Sample:** 

New Word	My Description		
difference	the answer when you subtract		
Personal Connection	Drawing		
The difference between 9 and 6 is three.	9-6-3		

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

Students will complete this notebook for each vocabulary word that they are given.

# Activity Subtraction

#### Subtraction

Subtraction is a math operation that begins with a total number and then removes part of that total. The difference is what is left AFTER you have removed a certain number of objects. If you start with 9 happy faces and you remove 6 happy faces (the number being placed in the second box, the subtraction problem will tell you how many are left in the first box.

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Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



The problem is written: 9 - 6 = 3 or

9 <u>-6</u> 3

Subtraction is the reciprocal of addition. Instead of trying to find the total, you know the total and are trying to find the difference in the total if you remove several of the objects from the group.

Rather than demonstrating this with white boards and erasing objects, have the students use small Post-Its. Draw a circle on the white board. Ask students to give you a number of Post-Its to use under 20. Place that number of Post-Its in the circle. Count them and write the number under the circle. Draw a second circle to the right of the first, and ask students how many of the Post-Its from the first circle they would like to move to the second circle. Physically move those Post-Its and write the number underneath the second circle. Now ask the students how many Post-Its are left in the original circle. This then becomes the difference. Write each of the subtraction problems in the horizontal and vertical form after you have done the manipulation with the Post-Its.

#### What's The Difference?

#### **Directions:**

- 1. Divide students into pairs.
- Give each pair a What's The Difference Problem Board and piece of blank paper. (Note: If you want to use the game board more than one, laminate or put in a sheet protector)
- 3. Have students fold the paper until they have 8 spaces on one side and 8 on the other. (This will become the paper they write the problems on.)
- 4. Working together, the pair follows the directions on the Problem Board and then writes the subtraction problem on the blank paper, one problem per box.
- 5. When pair is finished, they share their problems with another pair and compare.

	Closing
	Review
Say:	
•	Please recap what we did today.
•	Did we achieve our objectives?
	Debrief
What o	lid you like about what we did today in math?
How ca	an you use the information from today in school tomorrow?

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one



particular way which was new to them. (Tweak)

4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



## 1st Grade What's The Difference

Cross out 4 hearts	Cross out 3 happy faces	Cross out 2 suns	Cross out 5 spades		
* * * * *	00000	* * * * *	****		
* * * * *	00000	* * * * *			
~ ~ ~ ~ ~	$\odot$	* * * *	<b>* * * * *</b>		
Write the problem	Write the problem	Write the problem	Write the problem		
Cross out 0 hearts	Cross out 8 happy faces	Cross out 7 suns	Cross out 8 spades		
* * * * *	00000	* * * * *	<b>* * * * *</b>		
* * * *		* * * * * *	<b>* * * * *</b>		
* * * *		* * * *	<b>* * * * *</b>		
Write the problem			Write the problem		
Write the problem	Write the problem	Write the problem	vviite the problem		
Cross out 5 hearts	Cross out 6 happy faces	Cross out 1 sun	Cross our 6 spades		
* * * * *		* * * * *	<b>* * * * *</b>		
* * * * *		* * * * *	* * * * *		
* * *		* * * *	<b>* * * * *</b>		
Write the problem	Write the problem	Write the problem	Write the problem		
Cross out 9 hearts	Cross out 4 happy faces	Cross out 8 suns	Cross out 3 spades		
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Write the problem	Write the problem	Write the problem	Write the problem		



Component	Math
Grade Level:	First Grade
Lesson Title:	What's My Number?
Focus:	Subtraction

Materials:
White boards Activity at the end of this lesson plan
Crayolas
Socks (for erasers)

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What steps do you take to find the right answer to a subtraction problem? What do you call the answer to a subtraction problem? Write a number sentence that shows that you are subtracting. Now write a story about the number sentence. Share it with a peer.

#### Content (the "Meat")

#### **Problem of the Day**

Jill has 7 dolls. She receives 2 for her birthday. How many dolls does she have now? Explain your thinking.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 8, 7 and 15. Have students write the entire Fact Family on the white board.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



8 + 7 = 15

7 + 8 = 15

15 - 8 = 7

15 - 7 = 8

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 8, 7 and 15.

#### **Math Vocabulary**

#### Word for today: subtraction

**Description**: The term subtraction refers to an operation in math where you start with a total and then take some of it away and then you find out how much you have left. Subtraction is the opposite of addition.

Have children complete the vocabulary notebook for the word context.

#### **Vocabulary Notebook Sample:**

New Word	My Description				
subtraction	taking something away from a total				
Personal Connection	Drawing				
I like to do subtraction problems.	subtract				

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

# Activity Subtraction

#### Subtraction

Sometimes using a number line to subtract is helpful. Instead of moving forward, you would be moving backwards (or toward zero).

To work on a number line, you position your pencil or marker on the first number in the problem (the minuend). You then move toward the 0 the number of spaces indicated by the second number (the subtrahend), and the number you land on is the answer (the difference). It is important to give children the vocabulary to talk through the subtraction problem.

Draw a number line on the white board or chart paper that moves from 0 to 10. Using the number line, begin on the minuend, hop or move backwards the number indicated by the minuend, and then find the difference. Write the problem horizontally. Complete several problems with the students before having them work on their own.

## What's My Number?

#### **Directions:**

- 1. Divide students into pairs.
- 2. Give each pair a number line and a set of What's My Number cards. Students will also need a white board.
- 3. Together, pair draws a What's My Number card and then uses the number line to

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



solve the problem.

- 4. When they have solved the problem, they should record it on the white board.
- 5. When pair is finished they should share their problems with another pair of students.

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#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of next time?

What are the different shapes that you made with the marshmallows and toothpicks

Where can you find those shapes in the world?

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.

## 1st Grade What's My Number

5 – 2 =	4 – 2 =	6 – 3 =	6 – 4 =	
9 – 3 =	9 – 2 =	7 – 5 =	7 – 3 =	
8 – 6 =	8 – 2 =	8 – 4 =	8 – 5 =	
8 – 3 =	9 – 7 =	9 – 6 =	9 – 5 =	
4 – 4 =	8 – 8 =	7 – 4 =	7 – 1 =	
6 – 2 =	5 – 3 =	5 – 4 =	7 – 6 =	
9 – 8 =	8 – 7 =	9 – 1 =	1 – 1 =	



1st Grade What's My Number





0	1	2	3	4	5	6	7	8	9



Component	Math
Grade Level:	First Grade
Lesson Title:	What's My Number?
Focus:	Subtraction

Materials:

White boards

Activity at the end of the lesson plan

Crayolas

Socks (for erasers)

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What steps do you take to find the right answer to a subtraction problem? What do you call the answer to a subtraction problem? Write a number sentence that shows that you are subtracting. Now write a story about the number sentence. Share it with a peer.

#### Content (the "Meat")

#### **Problem of the Day**

Look at the calendar below. If it is the 11<sup>th</sup> of the month and your birthday is in 5 days, what is the date of your birthday? Explain your answer.

S	М	T	W	Τ	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

## \*Activity → Teachable Moment(s) throughout

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



$$3 - 1 = 2$$

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 7, 9 and 16. Have students write the entire Fact Family on the white board.

$$7 + 9 = 16$$

9 + 7 = 16

16 - 7 = 9

16 - 9 = 7

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 7, 9, and 16.

#### Math Vocabulary

#### Word for today: number sentence

**Description:** The term number sentence refers to the problem that we write that demonstrates the math for the story we read. A number sentence can look like this: 8-3=5 is a number sentence. The story is this: Judy had 8 cookies. She gave 3 to her best friend. How many cookies does Judy have left. Write a number sentence for this story: Judy has 9 flowers. She gave 4 to her grandmother. How many flowers does she have left?

Review the entry in your Vocabulary Notebook for the word number sentence. Add anything that you think is important.

Vocabulary Notebook Sample:

	New Word	My Description
	number sentence	Number sentences tell you how numbers are related
Ī	Personal Connection	Drawing
	I had 8 pieces of candy. I game my sister 2 pieces. Now I have 6 pieces left.	8-2-6

It is important to review academic math vocabulary often throughout the day.
Complete the Vocabulary notebook for each word.
When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

#### **Activity**

#### Subtraction

Sometimes using a number line to subtract is helpful. Instead of moving forward, you would be moving backwards (or toward zero).

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it



To work on a number line, you position your pencil or marker on the first number in the problem (the minuend). You then move toward the 0 the number of spaces indicated by the second number (the subtrahend), and the number you land on is the answer (the difference). It is important to give children the vocabulary to talk through the subtraction problem.

in the "When Homework Is Complete" center.

Draw a number line on the white board or chart paper that moves from 0 to 10. Using the number line, begin on the minuend, hop or move backwards the number indicated by the minuend, and then find the difference. Write the problem horizontally. Complete several problems with the students before having them work on their own.

#### What's My Number?

#### **Directions:**

- 1. Divide students into pairs.
- 2. Give each pair a number line and a set of What's My Number cards. Students will also need a white board.
- 3. Together, pair draws a What's My Number card and then uses the number line to solve the problem.
- 4. When they have solved the problem, they should record it on the white board.
- 5. When pair is finished they should share their problems with another pair of students.

#### Closing

#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What are the different shapes that you made with the marshmallows and toothpicks

Where can you find those shapes in the world?

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.

## 1st Grade What's My Number

5 – 2 =	4 – 2 =	6 – 3 =	6 – 4 =
9 – 3 =	9 – 2 =	7 – 5 =	7 – 3 =
8 – 6 =	8 – 2 =	8 – 4 =	8 – 5 =
8 – 3 =	9 – 7 =	9 – 6 =	9 – 5 =
4 – 4 =	8 – 8 =	7 – 4 =	7 – 1 =
6 – 2 =	5 – 3 =	5 – 4 =	7 – 6 =
9 – 8 =	8 – 7 =	9 – 1 =	1 – 1 =



1st Grade What's My Number





0	1	2	3	4	5	6	7	8	9



Component	Math
Grade Level:	First Grade
Lesson Title:	Decoder Clues
Focus:	Subtraction

**Materials:** 

White boards

Activity at the end of this lesson plan

Crayolas

Socks (use as erasers)

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about subtraction? Give a number sentence that gives a subtraction problem. Tell the story that goes with this number sentence. Share with a peer. Do the same thing all over again. What does the word difference mean? In your number sentence, which number is the minuend? Which is the subtrahend?

#### Content (the "Meat")

#### **Problem of the Day**

John has a quarter. Joan has a dime. Which one has the most money? Explain your answer.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 3, 8 and 11.

## \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



Have students write the entire Fact Family on the white board.

3 + 8 = 11

8 + 3 = 11

11 - 3 = 8

11 - 8 = 3

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 3, 8 and 11.

#### **Math Vocabulary**

#### Word for Today: minuend

**Description**: The term minuend is used to describe the total in a subtraction problem that you are subtracting from. In a number sentence, the minuend is the first number in the problem. In the problem, 6 - 2 = 4, the 6 is the minuend.

Have children revisit the entry in the Vocabulary Notebook for the word **how many**.

**Vocabulary Notebook Sample:** 

New Word	My Description
minuend	the number you subtract from
Personal Connection	Drawing
In the number sentence 9 – 3 = 6, 9 is the minuend.	- 3 = 6

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation). Vocabulary Notebooks can be made from ½ of a

composition book.

## Activity Subtraction

#### **Subtraction**

Subtraction is a math operation that begins with a total number and then removes part of that total. The difference is what is left AFTER you have removed a certain number of objects. If you start with 9 happy faces and you remove 6 happy faces (the number being placed in the second box, the subtraction problem will tell you how many are left in the first box.



The problem is written: 9 - 6 = 3 or

9 <u>-6</u> 3 Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



Subtraction is the reciprocal of addition. Instead of trying to find the total, you know the total and are trying to find the difference in the total if you remove several of the objects from the group.

Review several subtraction problems with the students. Have them write them on a white board while you write them on chart paper or a large white board. Work through the process, reminding students of the number line and the Post-Its.

Explain the today the subtraction problems will give them the clues they need to find an answer to a riddle.

#### **Decoder Clues**

#### Directions:

- 1. Divide students into pairs.
- 2. Give each pair a Decoder Clues problem sheet and white boards.
- 3. Working together, pairs complete each of the problems.
- 4. When the problems are completed, pair should take the letter of the problem and plug the letters into the riddle card.
- 5. If the problems were completed correctly, the answer to the riddle will be obvious. (Not all letters may be used in the answer).

	Closing
	Review
Say:	
Please recap what we did today.	
<ul> <li>Did we achieve our objectives?</li> </ul>	
	Debrief
What did you like about today's lesson?	
How can you use the information from today during cl	lass tomorrow?
What is one key learning you had today in math?	

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.



## 1st Grade Decoder Clues

R	E	Р	V	L
8	9	6	10	9
<u>- 7</u>	<u>- 6</u>	<u>-1</u>	10 <u>- 2</u>	<u>-2</u>
S	В	Т	Р	Q
9	8	10	7	11
<u>-9</u>	<u>- 4</u>	<u>-4</u>	<u>-5</u>	<u>-2</u>
0	U	N	Α	G
18 <u>-5</u>	12	15	14 <u>- 3</u>	17
<u>-5</u>	<u>-2</u>	<u>- 3</u>	<u>- 3</u>	<u>- 3</u>



Riddle for Day #7

(	)		5	5 13		13		12		1	4	3	3
			2	1	1	3	2	1					
(	)	Ç	)	1	0	1	1	,	1	3	3		
	2	2	1	1	1	2	(	6	(	)			

**Note**: Do not give children then answer below.

Who's yellow and square and lives under the sea? Sponge Bob Square Pants



Component	Math
Grade Level:	First Grade
Lesson Title:	Decoder Clues
Focus:	Subtraction

Materials:		
White boards	Activity at the end of the lesson plan	
Crayolas		
Socks		

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about subtraction? Give a number sentence that gives a subtraction problem. Tell the story that goes with this number sentence. Share with a peer. Do the same thing all over again. What does the word difference mean? In your number sentence, which number is the minuend? Which is the subtrahend?

Content	(the	"Meat"
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#### **Problem of the Day**

Which of the following numbers is an odd number? Explain how you know.

### 4, 16, 10, 7

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the

## \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



correct response.

**Today** you will introduce this activity and begin with the Fact Family of 4, 8, and 12. Have students write the entire Fact Family on the white board.

4 + 8 = 12

8 + 4 = 12

12 - 4 = 8

12 - 8 = 4

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 4, 8 and 12. Ask students to give you examples of doubles. Ask students to tell how doubles are different than other fact families.

#### Math Vocabulary

#### Word for Today: difference

**Description**: The term difference is the word we use to describe the answer to a subtraction problem. The word is difference because it is very descriptive of the operation of subtraction. You start with a total, take some items away, and what you have left is the difference. Look at this problem: 7-5 = 2. The difference is 2.

Review the entry in your Vocabulary Notebook for the word difference. Share it with a friend.

**Vocabulary Notebook Sample:** 

New Word	My Description
difference	In subtraction the amount you have left when you subtract
Personal Connection	Drawing
The difference of 12 – 4 is 8. In other words, 12 is 4 more than 8 or 8 more than 4.	12-4-8

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation). Vocabulary Notebooks can be made from ½ of a

composition book.

# Activity Subtraction

#### Subtraction

Subtraction is a math operation that begins with a total number and then removes part of that total. The difference is what is left AFTER you have removed a certain number of objects. If you start with 9 happy faces and you remove 6 happy faces (the number being placed in the second box, the subtraction problem will tell you how many are left in the first box.

$\rightarrow$	$\odot$
$( \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc )  \bigcirc \rightarrow$	
$\downarrow$	
$\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc$	

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



The problem is written: 9 - 6 = 3 or

9 <u>-6</u> 3

Subtraction is the reciprocal of addition. Instead of trying to find the total, you know the total and are trying to find the difference in the total if you remove several of the objects from the group.

Review several subtraction problems with the students. Have them write them on a white board while you write them on chart paper or a large white board. Work through the process, reminding students of the number line and the Post-Its.

Explain the today the subtraction problems will give them the clues they need to find an answer to a riddle.

#### **Decoder Clues**

#### **Directions:**

- 1. Divide students into pairs.
- 2. Give each pair a Decoder Clues problem sheet and white boards.
- 3. Working together, pairs complete each of the problems.
- 4. When the problems are completed, pair should take the letter of the problem and plug the letters into the riddle card.
- 5. If the problems were completed correctly, the answer to the riddle will be obvious. (Not all letters may be used in the answer).

#### Closing

#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

Give an example of how you will use what we did today in school tomorrow.

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.



# 1st Grade Decoder Clues

R	E	Р	V	L
8	9	6	10	9
<u>- 7</u>	<u>- 6</u>	<u>-1</u>	10 <u>- 2</u>	<u>-2</u>
S	В	Т	Р	Q
9	8	10	7	11
<u>-9</u>	<u>- 4</u>	<u>-4</u>	<u>-5</u>	<u>-2</u>
0	U	N	Α	G
18	12	15	14	17
18 <u>-5</u>	12 <u>-2</u>	<u>- 3</u>	14 <u>- 3</u>	<u>- 3</u>



Riddle for Day #8

0	9	10	11	1	3
	13	8	11	7	

**Note**: Do not give students the answer to the riddle listed below.

Two common shapes: Oval and Square



Component	Math
Grade Level:	First Grade
Lesson Title:	Add 'Em Up
Focus:	Addition

**Materials:**White boards

Activity at the end of the lesson plan

Crayolas

Socks (for erasers)

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Focus Student's Prior Knowledge

What do you know about addition? What do you call an answer to an addition problem? How many numbers can you add together in an addition problem? (unlimited). What is the opposite of addition? When you add do you end up with more than you started with or less than you started with? Give an example of an addition problem.

#### Content (the "Meat")

#### **Problem of the Day**

Draw a clock to show what it looks like when you go to lunch at 11:30.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 5, 8 and 13. Have students write the entire Fact Family on the white board.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.
Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



5 + 8 = 13

8 + 5 = 13

13 - 8 = 5

13 - 5 = 8

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 5, 8, and 13.

#### **Math Vocabulary**

#### Word for Today: addend

**Description:** The term addend is a word that we use to describe the numbers that we add together in an addition problem. In the problem 5 + 6 = 11, 5 and 6 are the addends. What are the addends in these two problems: 3 + 2 = 5 or 6 + 3 = 9.

Have children review the Vocabulary notebook for the word addend.

**Vocabulary Notebook Sample:** 

New Word	My Description	
addend	The two or more numbers that you add together are the addends	
Personal Connection	Drawing	
In the number sentence 6 + 4 = 10, the 6 and the 4 are addends. That is how old I am.	6+4	

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

# Activity Addition

#### Addition

Sometimes when we add we have numbers that have more than one digit. We can add 2 digit numbers, for example:

Students will add the two digits in the ones or units place, write the total underneath it, and the add the 2 digits that are in the tens place and write the answer or sum underneath the tens place. In the problem above, the answer or sum is 53.

Work through 8 - 10 problems with the children. **BE SURE** that neither the ones or the tens add up to more than 9. This is a lesson for another day.

After working through the problems with the students and you are comfortable that they can move forward on their own, distribute the game.

Add 'Em Up

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



#### **Directions:**

- 1. Divide students into pairs.
- 2. Give each pair an Add 'Em Up Game card and white boards. If you want to use the Game card more than once, either laminate or place in a sheet protector.
- 3. Working together the pair is to find the sum of each of the problems and then write the answer underneath the problem.
- 4. When all groups are finished, you will have them find the magic number by reading the clues provided and the pairs will cross out and eliminate answers until they have only one left, the Magic Number. There will be a different Magic Number for day 9 and day 10.

	Closing	
	Review	
Say:		
<ul> <li>Please recap what we did today.</li> </ul>		
<ul> <li>Did we achieve our objectives?</li> </ul>		
	Debrief	
What did you like about what we did today in math'		
What is a cube?		
How many sides does a cube have?		

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.



# 1st Grade Add 'Em Up

21	32	31	10
<u>+ 18</u>	<u>+ 16</u>	<u>+ 24</u>	<u>+ 17</u>
17	25	62	22
<u>+ 21</u>	<u>+ 31</u>	<u>+ 13</u>	<u>+ 43</u>
81	54	19	42
+ 14	<u>+ 23</u>	<u>+ 40</u>	<u>+ 37</u>



# Day # 9 Clues.

It is not 56. Cross it out.
It is not 95. Cross it out.
It is not 48. Cross it out.
It is not 79. Cross it out.
It is not 65. Cross it out.
It is not 55. Cross it out.
It is not 38. Cross it out.
It is not 39. Cross it out.
It is not 59. Cross it out.
It is not 77. Cross it out.
It is not 27. Cross it out.

What is the Magic Number? 75



Component	Math
Grade Level:	First Grade
Lesson Title:	Add 'Em Up
Focus:	Addition

Materials:

White boards

Activity at the end of the lesson plan

Crayolas

Socks (use as erasers)

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about addition when there are two digits in the addends? Where do you start your adding? (right of the number moving left) What do you do with sum of the digits in the ones column? What do you add next? Where do you put that sum? How do you read the number?

# Content (the "Meat")

#### **Problem of the Day**

Look around the classroom. Name three things that are circles.

#### **Fact Practice**

Fact Practice for 1<sup>st</sup> grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 6, 8, and 14.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



Have students write the entire Fact Family on the white board.

6 + 8 = 14

8 + 6 = 14

14 - 6 = 8

14 - 8 = 6

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 6, 8, and 14.

#### **Math Vocabulary**

#### Word for today: plus

**Description:** Plus is a term we use in a addition problem. It tells you to combine 2 or more amounts to find a total. When you plus something, you add things together. Plus is a word that means adding something.

Review the entry for the word plus that is in your Vocabulary notebook.

## **Vocabulary Notebook Sample:**

New Word	My Description	
plus	plus means to add together	
Personal Connection	Drawing	
For my collection I have 3 stamps plus the 2 new ones I got today.	-3:	2=5

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

# Activity Addition

#### Addition

Sometimes when we add we have numbers that have more than one digit. We can add 2 digit numbers, for example:

Students will add the two digits in the ones or units place, write the total underneath it, and the add the 2 digits that are in the tens place and write the answer or sum underneath the tens place. In the problem above, the answer or sum is 53.

Work through 8 - 10 problems with the children. **BE SURE** that neither the ones or the tens add up to more than 9. This is a lesson for another day.

After working through the problems with the students and you are comfortable that they can move forward on their own, distribute the game.

# Add 'Em Up

#### **Directions:**

- 1. Divide students into pairs.
- 2. Give each pair an Add 'Em Up Game card and white boards. If you want to use the

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



Game card more than once, either laminate or place in a sheet protector.

- 3. Working together the pair is to find the sum of each of the problems and then write the answer underneath the problem.
- 4. When all groups are finished, you will have them find the magic number by reading the clues provided and the pairs will cross out and eliminate answers until they have only one left, the Magic Number. There is a different Magic Number for today.

	Closing
	Review
Say:	
Please recap what we did today.	
<ul> <li>Did we achieve our objectives?</li> </ul>	
	Debrief
What did you like about what we did today in math?	
What do you know about a calendar?	
What are the names of the month?	
What are the names of the days of the week?	
What do you know about a calendar? What are the names of the month?	Debilei

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way
  which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



# 1st Grade Add 'Em Up

21	32	31	10
+ 18	<u>+ 16</u>	<u>+ 24</u>	<u>+ 17</u>
17	25	62	22
<u>+ 21</u>	<u>+ 31</u>	<u>+ 13</u>	<u>+ 43</u>
81	54	19	42
<u>+ 14</u>	+ 23	<u>+ 40</u>	<u>+ 37</u>



# Day # 10 Clues

It is not 79. Cross it out. It is not 65. Cross it out. It is not 39. Cross it out. It is not 59. Cross it out. It is not 77. Cross it out. It is not 56. Cross it out. It is not 95. Cross it out. It is not 75. Cross it out. It is not 55. Cross it out. It is not 38. Cross it out. It is not 48. Cross it out.

What is the Magic Number? 27



Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun!
Focus:	Review

**Materials:** 

White boards

Materials for games played the past 10 days

Crayolas

Socks (use for erasers)

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

### Gain prior knowledge by asking students the following questions

Ask children what they know about addition and subtraction. Ask them to share what they do to write number sentences? Ask them about story problems and how they connect to number sentences?

## Content (the "Meat")

#### **Problem of the Day**

Write a number sentence that has a sum of 8. Use picture, numbers, and words to show your thinking.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 7, 8, and 15. Have students write the entire Fact Family on the white board.

7 + 8 = 15

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



8 + 7 = 15

15 - 7 = 8

15 - 8 = 7

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 7, 8 and 15.

Activity

Today is a review day. Students should select from the following list of activities:

This Is The Sum What's The Difference? What's My Number? Decoder Clues Add 'Em Up Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

osing

Review

Say:

- Please recap what we did today.
- Did we achieve our objectives?

**Debrief** 

Which of the games did you enjoy playing the most?

What about this game is fun for you?

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component	Math
Grade Level:	First Grade
Lesson Title:	Subtraction
Focus:	Subtraction

Materials:
White boards dice (3 for each pair)
Crayolas

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about subtraction? What does it mean when we say minus or take away? When do you use subtraction? Write a number sentence that shows subtraction. Say the problem aloud to a partner.

## Content (the "Meat")

#### **Problem of the Day**

You have 6 dogs. Each dog has 2 ears. How many ears do you have? Draw a picture to show your answer.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

Socks (for erasers)

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

Today you will introduce this activity and begin with the Fact Family of 9, 8 and 17. Have students write the entire Fact Family on the white board.

9 + 8 = 17

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



8 + 9 = 17

17 - 9 = 8

17 - 9 = 8

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 8, 9 and 17.

#### **Math Vocabulary**

Word for Today: minus

**Description:** The term means subtraction. It is represented by the symbol -. This symbol lets you know that there is a total and that you are going to remove part of that total. In subtraction the answer will tell you the difference between what you started with and what you end up with after you have taken something away.

**Vocabulary Notebook Sample:** 

New Word	My Description
minus	when you take something away you minus it
Personal Connection	Drawing
It is easier to do a plus problem than a minus problem	

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

Students will complete this notebook for each vocabulary word that they are given.

#### **Activity**

#### Subtraction

Subtraction is a math process that starts with a total and then takes a specified amount away from the total and then finds the difference. When items are subtracted it does not mean that the items are necessarily destroyed, but it does mean that they are in another place, or eaten (if you are talking about cookies), etc.

When you subtract it is important that students understand that the largest number is on the top as the subtrahend. The minuend tells you the amount you are going to reduce the total by. The difference is the end results.

Work with students on subtraction problems by writing them on the board and talking them through it. You are going to subtract from a two digit number. Be certain that there is **NO** regrouping. Explain to students that they begin subtracting in the ones column, the column furthest to the right, and then work their way across to the left.

# Subtraction

#### **Directions:**

- 1. Divide students into pairs.
- 2. Give each pair a Subtraction Card, white boards and a Subtraction Game

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



Board.

- 3. Together, students work the problems one at a time on the Subtraction Card.
- 4. Pair then locates the answer on the Subtraction Game Board and crosses it out.
- 5. Game is over when all numbers have been crossed out.

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#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### **Debrief**

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What does it mean when we say we found an answer by addition?

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.

1st Grade Subtraction

68	
<u>-41</u>	



# 1st Grade Game Board

27	46	22	67
17	35	45	19
15	42	59	53
44	6	15	21



Component	Math
Grade Level:	First Grade
Lesson Title:	Subtraction
Focus:	Subtraction

Materials:
White boards dice (3 for each pair)
Crayolas

Socks (for erasers)

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about subtraction? What does it mean when we say minus or take away? When do you use subtraction? Write a number sentence that shows subtraction. Say the problem aloud to a partner.

## Content (the "Meat")

### **Problem of the Day**

John a 1 dime, 1 nickel and 3 pennies. He says he has 23¢. Is he right? How do you know?

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 3, 9, and 12. Have students write the entire Fact Family on the white board.

3 + 9 = 12

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



9 + 3 = 12

12 - 3 = 9

12 - 9 = 3

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 3, 9, and 12.

#### **Math Vocabulary**

# Word for Today: minus

**Description:** The term means subtraction. It is represented by the symbol -. This symbol lets you know that there is a total and that you are going to remove part of that total. In subtraction the answer will tell you the difference between what you started with and what you end up with after you have taken something away.

#### **Vocabulary Notebook Sample:**

New Word	My Description
minus	when you take something away you minus it
Personal Connection	Drawing
It is easier to do a plus problem than a minus problem	

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can

be made from ½ of a composition book.

## Activity

#### Subtraction

Subtraction is a math process that starts with a total and then takes a specified amount away from the total and then finds the difference. When items are subtracted it does not mean that the items are necessarily destroyed, but it does mean that they are in another place, or eaten (if you are talking about cookies), etc.

When you subtract it is important that students understand that the largest number is on the top as the subtrahend. The minuend tells you the amount you are going to reduce the total by. The difference is the end results.

Work with students on subtraction problems by writing them on the board and talking them through it. You are going to subtract from a two digit number. Be certain that there is **NO** regrouping. Explain to students that they begin subtracting in the ones column, the column furthest to the right, and then work their way across to the left.

#### **Subtraction**

#### **Directions:**

- 1. Divide students into pairs.
- 2. Give each pair a Subtraction Card, white boards and a Subtraction Game Board.
- 3. Together, students work the problems one at a time on the Subtraction Card.
- 4. Pair then locates the answer on the Subtraction Game Board and crosses it out.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



5. Game is over when all numbers have been crossed out.

<b>A</b> : :	
Closing	
CJOSINO	

#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### **Debrief**

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What is a number?

What is a letter?

Are they the same?

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.

1st Grade Subtraction

68	
<u>-41</u>	



# 1st Grade Game Board

27	46	22	67
17	35	45	19
15	42	59	53
44	6	15	21



Component	Math
Grade Level:	First Grade
Lesson Title:	Ins and Outs
Focus:	Addition and Subtraction

Materials:		
White boards	Activity at the end of the lesson plan	
Crayolas		
Socks		

#### **Opening**

### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

When you add and subtract, there can be rules that will help you have a pattern. For example, if you have the numbers 3, 4, and 5, and the rule for the pattern is to add 6, you would end up with 9, 10, and 11. If the rule for the pattern is to subtract 1, you would end up with 2, 3, and 4.

# Content (the "Meat")

#### **Problem of the Day**

4 + 4 = 8 is a doubles fact. Write 3 other doubles

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



**Today** you will introduce this activity and begin with the Fact Family of 4, 5, and 9 Have students write the entire Fact Family on the white board.

4 + 5 = 9

5 + 4 = 9

9 - 4 = 5

9 - 5 = 4

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 4, 5, and 9. Share with students that this fact is a double—the addends are the same.

#### **Math Vocabulary**

#### Word for Today: minus

Have children complete the Vocabulary notebook.

**Vocabulary Notebook Sample:** 

New Word	My Description
minus	Minus means to make less by a certain number
Personal Connection	Drawing
I am 8 years old. My brother is 3. 8 – 3 = 5, and I am 5 years older.	minus

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation) Vocabulary Notebooks can be made from ½ of a composition book

Students will complete this notebook for each vocabulary word that they are given.

#### Activity

#### Ins and Outs

Doing addition is like knowing that if you put something "in" and you apply a rule to it, you will have an "out" that creates a pattern. For example: if you put "in" the number 25 and you apply the rule "add 10", then you will get 35 "out". The reverse of this, subtraction, would be to start with an "out", reverse the rule (if it says add 10 then you would reverse that to subtract 10) and you would have the amount that was put in to begin with.

Understanding this process helps students understand that addition and subtraction are reciprocal processes.

Work several problems on the board with students. Set them up in the same format as the problems that they will be doing in the exercise.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



#### In or Out #1

#### **Directions:**

- 1. Divide students into pairs.
- 2. Give each pair an In or Out Board, and white boards.
- 3. Working together, pair solves each of the In or Out Board problems.
- 4. When In or Out Board is complete, pair joins with another pair and shares answers.

	Closing
	Review
Say:	
Please recap what we did today.	
<ul> <li>Did we achieve our objectives?</li> </ul>	
	Debrief
What did you like about what we did today in math?	
What would you like to do more of the next time we do n	nath?
What is a cylinder?	

# Reflection (Confirm, Tweak, Aha!)

Where can you see them in the world?

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.



# 1st Grade In Or Out #1

Rule: +5		Rule: +10		Rule: -5	
In	Out	In	Out	In	Out
10		10	Jul	10	
25		25		25	
50		50		50	
30				30	
Rule: +5		Rule: +10		Rule: -5	
In	Out	In	Out	In	Out
10		30		30	
	25		25		25
50		46		46	
				L	
Rule: -5		Rule: -10		Rule: +5	
In	Out	In	Out	In	Out
16		14		54	
	83		58		86
48		21		42	
Rule: +6		Rule: +5		Rule: -3	
In	Out	In	Out	In	Out
63			19	42	
	30		36		29
	12	84			60
	1.2				
Rule: +7		Rule: +4		Rule: -9	
In	Out	In	Out	In	Out
10		60		90	
25			72		72
50		50		16	
				10	



Component	Math
Grade Level:	First Grade
Lesson Title:	In and Out
Focus:	Addition and Subtraction

Materials:

White boards decks of cards with face cards and jokers removed

Crayolas Activity at the end of the lesson plan

Socks (for erasers)

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

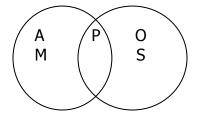
#### Gain prior knowledge by asking students the following questions

When you add and subtract, there can be rules that will help you have a pattern. For example, if you have the numbers 3, 4, and 5, and the rule for the pattern is to add 6, you would end up with 9, 10, and 11. If the rule for the pattern is to subtract 1, you would end up with 2, 3, and 4. Do several examples of "ins and outs" on the board, inviting children to come to the board and complete the work.

#### Content (the "Meat")

#### **Problem of the Day**

Look at the Venn Diagram below. If you want to write the letter V, where will you put it? How do you know that you are correct?



straight lines curves

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



$$3 - 1 = 2$$

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 5, 9 and 14. Have students write the entire Fact Family on the white board.

$$5 + 9 = 14$$

9 + 5 = 14

14 - 5 = 9

14 - 9 = 5

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 5, 9, and 14.

### **Math Vocabulary**

#### Word for Today: difference

**Description**: The term difference is the word we use to talk about the answer in an subtraction problem. When you subtract the numbers 9 - 6 you will have a difference of 3. This answer is the difference. Complete an entry for sum in your Vocabulary Notebook.

**Vocabulary Notebook Sample:** 

New Word	My Description
difference	the answer when you subtract
Personal Connection	Drawing
The difference between 9 and 6 is three.	9-6-3

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a

composition book.

Students will complete this notebook for each vocabulary word that they are given.

#### **Activity**

#### Ins and Outs

Doing addition is like knowing that if you put something "in" and you apply a rule to it, you will have an "out" that creates a pattern. For example: if you put "in" the number 25 and you apply the rule "add 10", then you will get 35 "out". The reverse of this, subtraction, would be to start with an "out", reverse the rule (if it says add 10 then you would reverse that to subtract 10) and you would have the amount that was put in to begin with.

Understanding this process helps students understand that addition and subtraction are reciprocal processes.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



Work several problems on the board with students. Set them up in the same format as the problems that they will be doing in the exercise.

# In or Out #1 Directions:

- 1. Divide students into pairs.
- 2. Give each pair an In or Out Board, and white boards.
- 3. Working together, pair solves each of the In or Out Board problems.
- 4. When In or Out Board is complete, pair joins with another pair and shares answers.

	Closing	
	Review	
Say:		
<ul> <li>Please recap what we did today.</li> </ul>		
<ul> <li>Did we achieve our objectives?</li> </ul>		
	Debrief	
What did you like about what we did today in n	nath?	
How can you use the information from today in	school tomorrow?	

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.



# 1st Grade In Or Out #1

Rule: +5		Rule: +10		Rule: -5	
In	Out	In	Out	In	Out
10		10		10	
25		25		25	
50		50		50	
Rule: +5		Rule: +10		Rule: -5	
In	Out	In	Out	In	Out
10		30		30	
	25		25		25
50		46		46	
Rule: -5		Rule: -10		Rule: +5	
In	Out	In	Out	In	Out
16		14		54	
	83		58		86
48		21		42	
Rule: +6		Rule: +5		Rule: -3	
In	Out	In	Out	In	Out
63			19	42	
	30		36		29
	12	84			60
Rule: +7		Rule: +4		Rule: -9	
In	Out	In	Out	In	Out
10		60		90	
25			72		72
50		50		16	



Component	Math
Grade Level:	First Grade
Lesson Title:	Ins and Outs
Focus:	Addition and Subtraction

Materials:

White boards

Activity at the end of this lesson plan

Crayolas

Socks (for erasers)

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

When you add and subtract, there can be rules that will help you have a pattern. For example, if you have the numbers 13, 15, and 17, and the rule is plus 5, you will end up with 18, 20 and 22. What would the answers be if you had the same rule and you started with number 19, 21, and 23. If the rule for the pattern is to subtract 8, and you began with 13, 15, and 17, what would you end up with? Do several other examples of "ins and outs" on the board, inviting children to come to the board and complete the work.

#### Content (the "Meat")

#### **Problem of the Day**

There are two bags with marbles in them. Each bag has 6 marbles. How many marbles are there all together? Draw your answer.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look

# \*Activity → Teachable Moment(s) throughout

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 6, 9 and 15. Have students write the entire Fact Family on the white board.

6 + 9 = 15

9 + 6 = 15

15 - 6 = 9

15 - 9 = 6

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 6, 9 and 15.

#### Math Vocabulary

#### Word for today: subtraction

**Description**: The term subtraction refers to an operation in math where you start with a total and then take some of it away and then you find out how much you have left. Subtraction is the opposite of addition.

Have children complete the vocabulary notebook for the word context.

**Vocabulary Notebook Sample:** 

New Word	My Description
subtraction	taking something away from a total
Personal Connection	Drawing
I like to do subtraction problems.	subtract

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

### **Activity**

#### Ins and Outs

Doing addition is like knowing that if you put something "in" and you apply a rule to it, you will have an "out" that creates a pattern. For example: if you put "in" the number 25 and you apply the rule "add 10", then you will get 35 "out". The reverse of this, subtraction, would be to start with an "out", reverse the rule (if it says add 10 then you would reverse that to subtract 10) and you would have the amount that was put in to begin with.

Understanding this process helps students understand that addition and subtraction are reciprocal processes.

Work several problems on the board with students. Set them up in the same format as the problems they will be doing in the exercise.

#### In or Out #2

#### **Directions:**

- 1. Divide students into pairs.
- 2. Give each pair an In or Out Board, and white boards.
- 3. Working together, pair solves each of the In or Out Board problems.
- 4. When In or Out Board is complete, pair joins with another pair and shares answers.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



### Closing

#### Review

### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### **Debrief**

What did you like about what we did today in math?

What would you like to do more of next time?

What are the different shapes that you made with the marshmallows and toothpicks

Where can you find those shapes in the world?

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



# 1st Grade In Or Out #2

Rule: +5		Rule: +10		Rule: -5	
In	Out	In	Out	In	Out
40		25		18	
32		42		27	
61		36		71	
Rule: +5		Rule: +10		Rule: -5	
In	Out	In	Out	In	Out
23		22		16	
	90		54		48
46		78		51	
Rule: -5		Rule: -10		Rule: +5	
In	Out	In	Out	In	Out
11		43		66	
	78		78		49
69		32		50	
Rule: +6		Rule: +5		Rule: -3	
In	Out	In	Out	In	Out
71			29	67	
	44		44		14
	18	71			59
Rule: +7		Rule: +4		Rule: -9	
In	Out	In	Out	In	Out
34		45		78	
	71		66		46
52		58		29	



Component	Math
Grade Level:	First Grade
Lesson Title:	Ins and Outs
Focus:	Addition and Subtraction

**Materials:** 

White boards

Activity at the end of the lesson plan

Crayolas

Socks (for erasers)

### **Opening**

### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

### Gain prior knowledge by asking students the following questions

When you add and subtract, there can be rules that will help you have a pattern. For example, if you have the numbers 13, 15, and 17, and the rule is plus 10, you will end up with 23, 25, and 27. What would the answers be if you had the same rule and you started with number 19, 21, and 23. If the rule for the pattern is to subtract 2, and you began with 11, 13, 15, and 17, what would you end up with? Do several other examples of "ins and outs" on the board, inviting children to come to the board and complete the work.

### Content (the "Meat")

### **Problem of the Day**

Look at the table below. The table shows how many cookies Martin ate each day. How many cookies do you think Martin will eat on Friday if he follows the pattern of the other days?

Day	M	T	W	Th	F
#	2	3	4	5	

### **Fact Practice**

Fact Practice for 1<sup>st</sup> grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 7, 9 and 16. Have students write the entire Fact Family on the white board.

7 + 9 = 16

9 + 7 = 16

16 - 7 = 9

16 - 9 = 7

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 7, 9, and 16.

### Math Vocabulary

### Word for today: number sentence

**Description:** The term number sentence refers to the problem that we write that demonstrates the math for the story we read. A number sentence can look like this: 8-3=5 is a number sentence. The story is this: Judy had 8 cookies. She gave 3 to her best friend. How many cookies does Judy have left. Write a number sentence for this story: Judy has 9 flowers. She gave 4 to her grandmother. How many flowers does she have left?

Review the entry in your Vocabulary Notebook for the word number sentence. Add anything that you think is important.

**Vocabulary Notebook Sample:** 

New Word	My Description
number sentence	Number sentences tell you how numbers are related
Personal Connection	Drawing
I had 8 pieces of candy. I game my sister 2 pieces. Now I have 6 pieces left.	8-2=6

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word

(Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

# Activity

#### Ins and Outs

Doing addition is like knowing that if you put something "in" and you apply a rule to it, you will have an "out" that creates a pattern. For example: if you put "in" the number 25 and

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is



you apply the rule "add 10", then you will get 35 "out". The reverse of this, subtraction, would be to start with an "out", reverse the rule (if it says add 10 then you would reverse that to subtract 10) and you would have the amount that was put in to begin with.

Complete" center.

Understanding this process helps students understand that addition and subtraction are reciprocal processes.

Work several problems on the board with students. Set them up in the same format as the problems they will be doing in the exercise.

### In or Out #3

### **Directions:**

- 1. Divide students into pairs.
- 2. Give each pair an In or Out Board, and white boards.
- 3. Working together, pair solves each of the In or Out Board problems.
- 4. When In or Out Board is complete, pair joins with another pair and shares answers.

# Closing

### Review

### Say:

- Please recap what we did today.
- Did we achieve our objectives?

### **Debrief**

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What are the different shapes that you made with the marshmallows and toothpicks

Where can you find those shapes in the world?

### Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.



# 1st Grade In Or Out #3

Rule: +6		Rule: +2		Rule: -7	
In	Out	In	Out	In	Out
10		10		10	
25		25		25	
50		50		50	
00					
Rule: +10		Rule: +3		Rule: -8	
In	Out	In	Out	In	Out
10		30		30	
	25		25		25
50		46		46	
		L		L	
Rule: -7		Rule: -6		Rule: +2	
In	Out	In	Out	In	Out
16		14		54	
	83		58		86
48		21		42	
		D.I. 4		D. I. 0	
Rule: +4		Rule: +1		Rule: -8	
In	Out	In	Out	In	Out
63			19	42	
	30		36		29
	12	84			60
	12				
Rule: +3		Rule: +7		Rule: -10	
In	Out	In	Out	In	Out
10		60		90	
25			72		72
50		50		16	



Component	Math
Grade Level:	First Grade
Lesson Title:	Puzzles
Focus:	Addition and Subtraction

**Materials:** 

White boards

Activity at the end of this lesson plan

Crayolas

Socks (use as erasers)

### **Opening**

### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

### Gain prior knowledge by asking students the following questions

What do you know about telling time? What is an analog clock? How many numbers are on the clock face? Name 5 different shapes. On your white board, draw those shapes. What number comes before 13? What number comes after?

# Content (the "Meat")

### **Problem of the Day**

Mr. Smith has 9 boys and 7 girls in his class. He has 16 soccer balls. Does Mr. Smith have enough soccer balls to have one for each student?

#### Fact Practice

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 8, 9 and 17. Have students write the entire Fact Family on the white board.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



8 + 9 = 17

9 + 8 = 17

17 - 8 = 9

17 - 9 = 8

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 8, 9 and 17.

### Math Vocabulary

### Word for Today: minuend

**Description**: The term minuend is used to describe the total in a subtraction problem that you are subtracting from. In a number sentence, the minuend is the first number in the problem. In the problem, 6 - 2 = 4, the 6 is the minuend.

Have children revisit the entry in the Vocabulary Notebook for the word **how many**.

**Vocabulary Notebook Sample:** 

New Word	My Description
minuend	the number you subtract from
Personal Connection	Drawing
In the number sentence 9 – 3 = 6, 9 is the minuend.	- 3 = 6

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

### Activity

### Puzzles, Puzzles, Puzzles

Puzzles can give students an opportunity to practice a variety of math operations. The next several days, pairs of students will have the opportunity to practice a variety of skills that they are developing.

Review each of the Puzzles with the students (changing the numbers so they are not just redoing when they work in their pairs). Each puzzle sheet will have 5 parts. There will be something with addition, telling time, numbers in and out/ or before/after, geometry, and counting.

# Puzzles #1

# **Directions:**

- 1. Divide students into pairs.
- 2. Give each pair a Puzzle sheet inside a sheet protector or laminated.
- 3. Pair works together to solve the puzzles.
- 4. When puzzles are finished, pair finds another pair to share work with.
- 5. Activity is over when all puzzles have been solved.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered vou can utilize it in the "When Homework Is Complete" center.



	Closing		
	Review		
Say:			
Please recap what we did today.			
<ul> <li>Did we achieve our objectives?</li> </ul>			
	Debrief		
What did you like about today's lesson?	Debilei		
What did you like about today's lesson?			
How can you use the information from today during cla	ass tomorrow?		

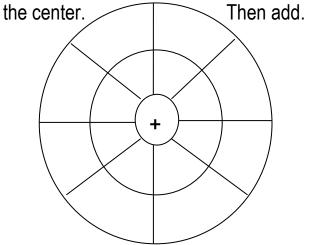
# Reflection (Confirm, Tweak, Aha!)

What is one key learning you had today in math?

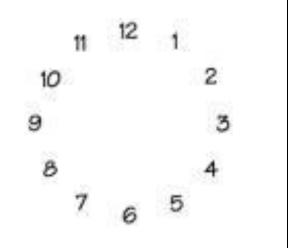
- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.

# 1st Grade Puzzles #1

Write a number in the space closest to



Draw hands on the clock to show 1:30.



Fill in the numbers:

Before	Number	After
	53	
	107	
	38	
	19	

Draw the shape:

square

triangle

circle

Count by ones. Write in the missing numbers.

34, 35, 36, 37, \_\_\_\_\_, \_\_\_\_, 41, 42, 43, \_\_\_\_\_, \_\_\_\_, 47, 48,

49, 50, \_\_\_\_\_, \_\_\_\_, \_\_\_\_



Component	Math
Grade Level:	First Grade
Lesson Title:	Puzzles
Focus:	Addition and Subtraction

Materials:		
White boards	Activity at the end of the lesson plan	
Crayolas		
Socks		

### **Opening**

### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

### Gain prior knowledge by asking students the following questions

What do you know about telling time? What is an analog clock? How many numbers are on the clock face? Name 5 different shapes. On your white board, draw those shapes. What number comes before 29? What number comes after?

### Content (the "Meat")

### **Problem of the Day**

Here is one way to show 9. Write at least 2 other ways to show 9.

3 + 3 + 3 = 9

### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 7, 7, and 14.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



Have students write the entire Fact Family on the white board.

7 + 7 = 14

7 + 7 = 14

14 - 7 = 7

14 - 7 = 7

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 7, 7 and 14. Ask students to give you examples of doubles. Ask students to tell how doubles are different than other fact families.

### Math Vocabulary

### Word for Today: difference

**Description**: The term difference is the word we use to describe the answer to a subtraction problem. The word is difference because it is very descriptive of the operation of subtraction. You start with a total, take some items away, and what you have left is the difference. Look at this problem: 7-5 = 2. The difference is 2.

Review the entry in your Vocabulary Notebook for the word difference. Share it with a friend.

**Vocabulary Notebook Sample:** 

New Word	My Description
difference	In subtraction the amount you have left when you subtract
Personal Connection	Drawing
The difference of 12 – 4 is 8. In other words, 12 is 4 more than 8 or 8 more than 4.	12-4-8

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

### **Activity**

### Puzzles, Puzzles, Puzzles

Puzzles can give students an opportunity to practice a variety of math operations. The next several days, pairs of students will have the opportunity to practice a variety of skills that they are developing.

Review each of the Puzzles with the students (changing the numbers so they are not just redoing when they work in their pairs). Each puzzle sheet will have 5 parts. There will be something with addition, telling time, numbers in and out/ or before/after, geometry, and counting.

# Puzzles #2 Directions:

- 1. Divide students into pairs.
- 2. Give each pair a Puzzle sheet inside a sheet protector or laminated.
- 3. Pair works together to solve the puzzles.
- 4. When puzzles are finished, pair finds another pair to share work with.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



5. Activity is over when all puzzles have been solved.

	Closing
Say:	Review
<ul><li>Please recap what we did today.</li><li>Did we achieve our objectives?</li></ul>	

### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

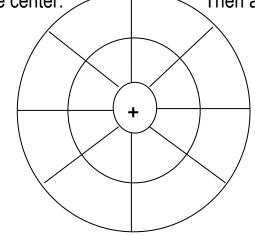
Give an example of how you will use what we did today in school tomorrow.

# Reflection (Confirm, Tweak, Aha!)

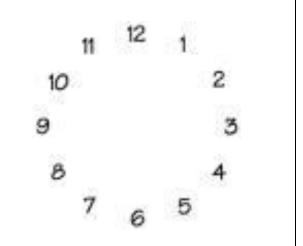
- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.

# 1st Grade Puzzles #2

Write a number in the space closest to the center. Then add.



Draw hands on the clock to show 3:00.



Fill in the numbers:

In	Out
8	13
2	
14	
	25

Draw the shape:

rectangle

star

heart

Count backward by ones. Write in the missing numbers.

156, 155, 154, \_\_\_\_\_, \_\_\_\_, \_\_\_\_, 149, 148,

147, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_



Component	Math
Grade Level:	First Grade
Lesson Title:	Puzzles
Focus:	Addition and Subtraction

Materials:

White boards

Activity at the end of the lesson plan

Crayolas

Socks (for erasers)

### **Opening**

### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

### Focus Student's Prior Knowledge

What do you know about telling time? What is an analog clock? Draw one and show the time 3:00. How many numbers are on the clock face? Name 5 different shapes. On your white board, draw those shapes. What number comes before 41? What number comes after?

### Content (the "Meat")

### **Problem of the Day**

There are 4 nests and each nest has 2 eggs. How many eggs are there all together? Draw a picture.

### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 8, 8 and 16. Have students write the entire Fact Family on the white board.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



8 + 8 = 16

8 + 8 = 16

16 - 8 = 8

16 - 8 = 8

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 8, 8, and 16.

### Math Vocabulary

### Word for Today: addend

**Description:** The term addend is a word that we use to describe the numbers that we add together in an addition problem. In the problem 5 + 6 = 11, 5 and 6 are the addends. What are the addends in these two problems: 3 + 2 = 5 or 6 + 3 = 9.

Have children review the Vocabulary notebook for the word addend.

Vocabulary Notebook Sample:

New Word	My Description		
addend	The two or more numbers that you add together are the addends		
Personal Connection	Drawing		
In the number sentence 6 + 4 = 10, the 6 and the 4 are addends. That is how old I am.	6+4		

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

### **Activity**

### Puzzles, Puzzles, Puzzles

Puzzles can give students an opportunity to practice a variety of math operations. The next several days, pairs of students will have the opportunity to practice a variety of skills that they are developing.

Review each of the Puzzles with the students (changing the numbers so they are not just redoing when they work in their pairs). Each puzzle sheet will have 5 parts. There will be something with addition, telling time, numbers in and out/ or before/after, geometry, and counting.

# Puzzles #3

#### Directions:

- 1. Divide students into pairs.
- 2. Give each pair a Puzzle sheet inside a sheet protector or laminated.
- 3. Pair works together to solve the puzzles.
- 4. When puzzles are finished, pair finds another pair to share work with.
- 5. Activity is over when all puzzles have been solved.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

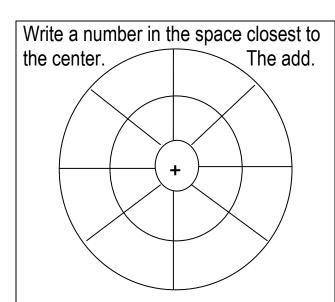


	Closing
	Review
Say:	
<ul><li>Please recap what we did today.</li><li>Did we achieve our objectives?</li></ul>	
	Debrief
What did you like about what we did today in math?	
Vhat is a cube?	
low many sides does a cube have?	

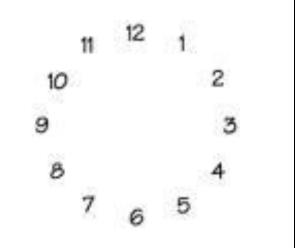
# Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.

# 1st Grade Puzzles #3



Draw hands on the clock to show 2:30.



Fill in the numbers:

Before	Number	After
	106	
	125	
	87	
	90	

Draw this coin and tell its value:

penny

dime

nickel

Count by fives. Write in the missing numbers.

25, 30, \_\_\_\_\_, \_\_\_\_, 50, 55, \_\_\_\_\_, \_\_\_\_, 75, 80 \_\_\_\_\_,



Component	Math
Grade Level:	First Grade
Lesson Title:	Puzzles
Focus:	Addition and Subtraction

Materials:

White boards

Activity at the end of the lesson plan

Crayolas

Socks (use as erasers)

### **Opening**

### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

### Gain prior knowledge by asking students the following questions

What do you know about telling time? Draw a digital clock and show the time 5:30. How many numbers are on the clock face? Name 5 different shapes. On your white board, draw those shapes. What number comes before 86? What number comes after?

### Content (the "Meat")

# **Problem of the Day**

If  $3 + \cancel{\times} = 9$ , what is the value of the  $\cancel{\times}$ ? How do you know you are correct?

### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 9, 9, and 18. Have students write the entire Fact Family on the white board.

$$9 + 9 = 18$$

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



9 + 9 = 18

18 - 9 = 9

18 - 9 = 9

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 9. 9. and 18.

### **Math Vocabulary**

### Word for today: plus

**Description:** Plus is a term we use in a addition problem. It tells you to combine 2 or more amounts to find a total. When you plus something, you add things together. Plus is a word that means adding something.

Review the entry for the word plus that is in your Vocabulary notebook.

### **Vocabulary Notebook Sample:**

New Word My Description			
plus	plus means to add together		
Personal Connection	Drawing		
For my collection I have 3 stamps plus the 2 new ones I got today.	-3 + 2 = 5		

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

### **Activity**

### Puzzles, Puzzles, Puzzles

Puzzles can give students an opportunity to practice a variety of math operations. The next several days, pairs of students will have the opportunity to practice a variety of skills that they are developing.

Review each of the Puzzles with the students (changing the numbers so they are not just redoing when they work in their pairs). Each puzzle sheet will have 5 parts. There will be something with addition, telling time, numbers in and out/ or before/after, geometry, and counting.

# Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

# Puzzles #4

### **Directions:**

- 1. Divide students into pairs.
- 2. Give each pair a Puzzle sheet inside a sheet protector or laminated.
- 3. Pair works together to solve the puzzles.
- 4. When puzzles are finished, pair finds another pair to share work with.
- 5. Activity is over when all puzzles have been solved.



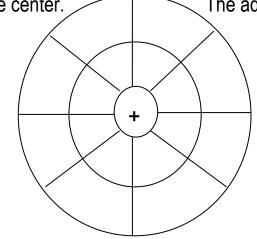
		Closing	
		Review	
Say:			
•	Please recap what we did today.		
•	Did we achieve our objectives?		
		Debrief	
What o	did you like about what we did today in math?		
What o	do you know about a calendar?		
What a	are the names of the month?		
What a	are the names of the days of the week?		

# Reflection (Confirm, Tweak, Aha!)

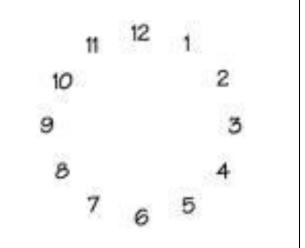
- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.

# 1st Grade Puzzles #4

Write a number in the space closest to the center. The add.



Draw hands on the clock to show 4:30.



Fill in the numbers:

Before	Number	After
	53	
	107	
	38	
	19	

Draw the coins to show the amount:

13¢

28¢

61¢

Count backward by 5s. Write in the missing numbers.

95, 90, \_\_\_\_\_, \_\_\_\_, 70, 65, 60, \_\_\_\_\_, \_\_\_\_, 40,



Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun!
Focus:	Review

Materials:

White boards Materials for games played the past 10 days

Crayolas

Socks (use for erasers)

### **Opening**

### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

### Gain prior knowledge by asking students the following questions

Ask children what they know about addition and subtraction. Ask them to share what they do to write number sentences? Ask them about story problems and how they connect to number sentences?

### Content (the "Meat")

### **Problem of the Day**

List 6 things in your classroom that are longer than your shoe.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 10, 10, and 20 Have students write the entire Fact Family on the white board.

10 + 10 = 20

10 + 10 = 20

# \*Activity → Teachable Moment(s) throughout

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



20 - 10 = 10Bring two students up to practice the conversation. Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 10, 10, and 20.

Activity

Today is a review day. Students should select from the following list of activities:

Subtraction In or Out #1 In or Out #2 In or Out #3

20 - 10 = 10

Puzzles #1

Puzzles #3 Puzzles #4

Puzzles #2

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

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#### Review

### Say:

- Please recap what we did today.
- Did we achieve our objectives?

### **Debrief**

Which of the games did you enjoy playing the most?

What about this game is fun for you?

# Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component	Math	
Grade Level:	First Grade	
Lesson Title:	Greater Than, Less Than	
Focus:	Comparison	

Materials: White boards dice (3 for each pair) Cravolas Socks (for erasers)

### **Opening**

### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

### Gain prior knowledge by asking students the following questions

What do you know about comparing numbers? What are some of the symbols we use to make comparisons? (<, >, =) Why is it important that you know how to compare numbers? When might you use this skill? How would you compare these numbers: 14 and 21; 71 and 43?

	Content (the "Meat")					
Look at t	he rov	vs of Xs	s below		Problem of the Day e them into groups of 5.	*Activity → Teach Moment(s) <i>throu</i> g
	X X X	X X X	X X X	X X X	X X X	During the lesson che with students repeated Check in about what is happening and what the state of the control
			Λ		Fact Practice	thinking.  Take advantage of an

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)

They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5th day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to guickly look

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Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



through his/her cards (of course we hope they remember without looking) and gives the correct response.

Today you will introduce this activity and begin with the Fact Family of 3, 6, and 9. Have students write the entire Fact Family on the white board.

3 + 6 = 9

6 + 3 = 9

9 - 3 = 6

9 - 6 = 3

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 3, 6, and 9.

### **Math Vocabulary**

### Word for Today: compare

**Description:** The term compare means to look at two or more numbers and determine if they are equal, larger, or smaller. Compare is an action that identifies the relationship between numbers. We use symbols to make these comparisons: < less than, >greater than, and = equal.

Create an entry for the term "compare" in your Vocabulary Notebook. Share with a peer.

**Vocabulary Notebook Sample:** 

New Word	My Description
compare	say how numbers are related
Personal Connection	Drawing
7 > 3.	greater than

Students will complete this notebook for each vocabulary word that they are given.

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

### **Activity**

### **Greater Than or Less Than**

It is important for children to be able to compare numbers, knowing which one is larger, which is smaller, and when numbers are equal.

There are symbols to represent greater than > and less than <. Sometimes this symbol is called the alligator, and people can identify the largest number because the mouth is open to the largest number.

When reading the comparison you begin with the number on the left and tell whether it is greater than or less than the second number.

Practice several comparisons on the board with the children. Be sure to talk through what you are thinking so that they can hear how you are thinking about the problem. Be sure that you read the comparison aloud after you have made it.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



### **Greater Than or Less Than**

### **Directions:**

- 1. Deal each player 5 of the number cards.
- 2. Place the remainder of the cards face down on the board.
- 3. Place the < > cards face down next to the cards.
- 4. Turn up the first card. This is the "comparison number"
- 5. Player draws a < or > card and must play a number from his/her hand that is < or > the beginning number. If player can play a number, the next player repeats the steps, but the number the first player played is now the "comparison number". If the player can not play, then he/she must draw a card.
- 6. First player to play all of his/her cards, wins.

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#### Review

### Say:

- Please recap what we did today.
- Did we achieve our objectives?

### **Debrief**

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What does it mean when we say we found an answer by addition?

### Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.



1st Grade Greater Than or Less Than (It is suggested that you run the numbers on one color and the < and > symbols on another color to make separation easier.

and the < and > symbols or  1	another color to make separate and the s	aration easier.
4	5	6
7	8	9



10	11	12
13	14	15
16	17	18



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>	>	>
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>	>	>
UP ↑	UP ↑	UP ↑



Component	Math	
Grade Level:	First Grade	
Lesson Title:	Greater Than, Less Than	
Focus:	Number	

Materials:
White boards dice (3 for each pair)
Crayolas
Socks (for erasers)

### **Opening**

### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

### Gain prior knowledge by asking students the following questions

What do you know about comparing numbers? What are some of the symbols we use to make comparisons? (<, >, =) Why is it important that you know how to compare numbers? When might you use this skill? How would you compare these numbers: 34 and 21; 82 and 93?

### Content (the "Meat")

### **Problem of the Day**

John has 13 Hot Wheels. Mark has 17 How Wheels. How many Hot Wheels do they have in all? Explain how you got your answer.

### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 4, 6, and 10. Have students write the entire Fact Family on the white board.

# \*Activity → Teachable Moment(s) throughout

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



4 + 6 = 10

6 + 4 = 10

10 - 4 = 6

10 - 6 = 4

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 4, 6, and 10..

### **Math Vocabulary**

### Word for Today: compare

**Description:** The term compare means to look at two or more numbers and determine if they are equal, larger, or smaller. Compare is an action that identifies the relationship between numbers. We use symbols to make these comparisons: < less than, >greater than, and = equal.

Create an entry for the term "compare" in your Vocabulary Notebook. Share with a peer.

**Vocabulary Notebook Sample:** 

New Word	My Description
compare	say how numbers are related
Personal Connection	Drawing
7 > 3.	greater than
	greater than

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation). Vocabulary Notebooks can be made from ½ of a composition book.

### **Activity**

### **Greater Than or Less Than**

It is important for children to be able to compare numbers, knowing which one is larger, which is smaller, and when numbers are equal.

There are symbols to represent greater than > and less than <. Sometimes this symbol is called the alligator, and people can identify the largest number because the mouth is open to the largest number.

When reading the comparison you begin with the number on the left and tell whether it is greater than or less than the second number.

Practice several comparisons on the board with the children. Be sure to talk through what you are thinking so that they can hear how you are thinking about the problem. Be sure that you read the comparison aloud after you have made it.

# **Greater Than or Less Than**

#### Directions:

- 1. Deal each player 5 of the number cards.
- 2. Place the remainder of the cards face down on the board.
- 3. Place the < > cards face down next to the cards.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



- 4. Turn up the first card. This is the "comparison number"
- 5. Player draws a < or > card and must play a number from his/her hand that is < or > the beginning number. If player can play a number, the next player repeats the steps, but the number the first player played is now the "comparison number". If the player can not play, then he/she must draw a card.
- 6. First player to play all of his/her cards, wins.

	1
C	losing
R	leview
Say:	
Please recap what we did today.	
<ul> <li>Did we achieve our objectives?</li> </ul>	
	ebrief
What did you like about what we did today in math?	
What would you like to do more of the next time we do mat	1?
What is a number?	
What is a letter?	
Are they the same?	

### Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



1st Grade Greater Than or Less Than (It is suggested that you run the numbers on one color and the < and > symbols on another color to make separation easier.

and the valid > symbols of	another color to make sep	3
4	5	6
7	8	9



10	11	12
13	14	15
16	17	18



<	<	<b>&lt;</b>
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<	<b>&lt;</b>	<
UP ↑	UP ↑	UP ↑
>	>	>
UP ↑	UP ↑	UP ↑
>	>	>
UP ↑	UP ↑	UP ↑



Component	Math
Grade Level:	First Grade
Lesson Title:	Adding and Subtracting
Focus:	Addition and Subtraction

Materials:		
White boards	Activity at the end of the lesson plan	
Crayolas		
Socks		

### **Opening**

### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

### Gain prior knowledge by asking students the following questions

What do you know about addition? What do you know about subtraction? What are the words we use to describe the answers in an addition problem? What are the words we use to describe the answers in a subtraction problem? Write several addition and subtraction problems on the board. Ask children to come to the board and solve the problems.

### Content (the "Meat")

### **Problem of the Day**

Look at the number sentence below. Is it correct? How do you know?

### 5 + 9 = 13

### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



correct response.

**Today** you will introduce this activity and begin with the Fact Family of 5, 6, and 11. Have students write the entire Fact Family on the white board.

5 + 6 = 11

6 + 5 = 11

11 - 5 = 6

11 - 6 = 5

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 5, 6, and 11. Share with students that this fact is a double—the addends are the same.

#### **Math Vocabulary**

#### Word for Today: minus

Have children complete the Vocabulary notebook.

**Vocabulary Notebook Sample:** 

New Word	My Description
minus	Minus means to make less by a certain number
Personal Connection	Drawing
I am 8 years old. My brother is 3. 8 – 3 = 5, and I am 5 years older.	minus

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation)

Vocabulary Notebooks can be made from ½ of a

composition book

Students will complete this notebook for each vocabulary word that they are given.

#### **Activity**

#### Addition and Subtraction

Addition and Subtraction are reciprocal operations. Addition is the mathematical operation of combining to groups and finding the sum. Subtraction is the mathematical operation that begins with a total, removes a part of the total, and determines the difference.

Write several addition and subtraction problems on the board and work them through with the children. Be sure to talk about what you are thinking and share with them the correct terms to use as they solve the problems.

Addition or Subtraction Directions:



- 1. Divide students into pairs.
- 2. Give each pair a deck of Addition or Subtraction cards and a game board.
- 3. Working together, pair draws a card and either adds or subtracts, and then finds the answer on the game board.
- 4. Activity is complete when all of the answers are covered.

	Closing
	Review
Say:	
Please recap what we did today.	
<ul> <li>Did we achieve our objectives?</li> </ul>	
	Debrief
What did you like about what we did today in math?	
What would you like to do more of the next time we do math?	
What is a cylinder?	

# Reflection (Confirm, Tweak, Aha!)

Where can you see them in the world?

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component	nt Math	
Grade Level:	First Grade	
Lesson Title:	tle: Adding and Subtracting	
Focus:	Addition and Subtraction	

Materials:

White boards decks of cards with face cards and jokers removed

Crayolas Activity at the end of the lesson plan

Socks (for erasers)

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

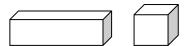
#### Gain prior knowledge by asking students the following questions

What do you know about addition? What do you know about subtraction? What are the words we use to describe the answers in an addition problem? What are the words we use to describe the answers in a subtraction problem? Write several addition and subtraction problems on the board. Ask children to come to the board and solve the problems.

#### Content (the "Meat")

#### **Problem of the Day**

Look at these solid figures. Name at least 3 ways that they are alike.



#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



correct response.

**Today** you will introduce this activity and begin with the Fact Family of 6, 7, and 13. Have students write the entire Fact Family on the white board.

6 + 7 = 13

7 + 6 = 13

13 - 6 = 7

13 - 7 = 6

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 6, 7, and 13.

## **Math Vocabulary**

Word for Today: difference

**Description**: The term difference is the word we use to talk about the answer in an subtraction problem. When you subtract the numbers 9 - 6 you will have a difference of 3. This answer is the difference. Complete an entry for sum in your Vocabulary Notebook.

**Vocabulary Notebook Sample:** 

New Word	My Description
difference	the answer when you subtract
Personal Connection	Drawing
The difference between 9 and 6 is three.	9-6-3

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a

composition book.

Students will complete this notebook for each vocabulary word that they are given.

#### Activity

#### Addition and Subtraction

Addition and Subtraction are reciprocal operations. Addition is the mathematical operation of combining to groups and finding the sum. Subtraction is the mathematical operation that begins with a total, removes a part of the total, and determines the difference.

Write several addition and subtraction problems on the board and work them through with the children. Be sure to talk about what you are thinking and share with them the correct terms to use as they solve the problems.

# Addition or Subtraction

#### **Directions:**

- 1. Divide students into pairs.
- 2. Give each pair a deck of Addition or Subtraction cards and a game board.
- 3. Working together, pair draws a card and either adds or subtracts, and then finds the answer on the game board.
- 4. Activity is complete when all of the answers are covered.



Closing

## Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### **Debrief**

Review

What did you like about what we did today in math?

How can you use the information from today in school tomorrow?

# Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component	Math	
Grade Level:	First Grade	
Lesson Title:	sson Title: Odd, Even, More, Less	
Focus:	Number	

Materials:

White boards

Activity at the end of this lesson plan

Crayolas

Socks (for erasers)

## **Opening**

## State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What is an odd number? What is an even number? Give several examples of each. What does it mean if a number is more than another number? What does it mean if a numbers is less than another number? When would it be helpful for you to know whether a number is odd or even? When would it be helpful to know if a number is more or less in comparison to another number?

#### Content (the "Meat")

# **Problem of the Day**

Joe went on a trip for 2 weeks. How many days was Joe gone? How do you know?

S	M	T	W	TH	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	23	25	26
27	28	29	30			

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

# \*Activity → Teachable Moment(s) throughout

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



$$3 - 1 = 2$$

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 6, 8, and 14. Have students write the entire Fact Family on the white board.

6 + 8 = 14

8 + 6 = 14

14 - 6 = 8

15 - 8 = 6

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 6, 8, and 14.

## Math Vocabulary

## Word for today: even

**Description**: The term even refers to a number that is said when you are counting by 2s. An even number can be divided by two and have equal shares. Even numbers include numbers that end in the digits 0, 2, 4, 6, or 8.

Have children complete the vocabulary notebook for the word context.

**Vocabulary Notebook Sample:** 

New Word	My Description
even	2, 4, 6, 8, and 0 are even
Personal Connection	Drawing
10 is an even number.	even

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

# Activity Number

#### Odd, Even, More, Less

Knowing whether a number is odd or even is important. Ad odd number is one that is **NOT** said when you count by 2s. Odd numbers include: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19 and 21. Even numbers are the numbers that you say when you count by 2s. Even numbers include 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, and 22.

Other terms that are important to understand are the words more and less. Knowing whether something is 1 more, 1 less, 10 more, 10 less, and so on, helps students become more familiar with numbers.

Demonstrate several of odd, even, more, less numbers on the board. Have children talk



about how they have determined whether the number is odd, even, more or less.

# Odd, Even, More, Less

# **Directions:**

- 1. Divide students into pairs.
- 2. Give each pair a deck of Odd, Even, More, Less cards.
- 3. Together the pair draws a card, determines what the answer is, and then draws a second card.
- 4. Activity is over when students have reviewed each of the cards and determined if the numbers are odd, even, more or less.

	Closing
	Review
Say:	
Please recap what we did today.	
<ul> <li>Did we achieve our objectives?</li> </ul>	
	Debrief
What did you like about what we did today in math?	
What would you like to do more of next time?	
What are 8 different even numbers?	
What are 8 different odd numbers?	

## Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



1st Grade Odd, Even, More, Less

What number is 1 more than 56?	What number is 10 more than 60?	What number is 1 less than 32?	What number is 1 less than 20?
What number is 10 more than 28?	What number is 10 less than 13?	What number is 10 less that 73?	What number is 1 more than 89?
What number is 10 more than 25?	What number is 1 more than 57?	What number is 1 less than 76?	What number is 1 more than 18?
What number is10 more than 28?	What number is 10 less than 65?	What number is 1 more than 3?	What number is 1 less than 92?
Is 28 odd or even?	Is 19 odd or even?	Is 37 odd or even?	Is 72 odd or even?
Is 64 odd or even?	Is 94 odd or even?	Is 21 odd or even?	Is 19 odd or even?
Is 26 odd or even?	Is 90 odd or even?	Is 53 odd or even?	Is 11 odd or even?



Component	Math
Grade Level:	First Grade
Lesson Title:	Odd, Even, More, Less
Focus:	Number

Materials:

White boards

Activity at the end of the lesson plan

Crayolas

Socks (for erasers)

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What is an odd number? What is an even number? Give several examples of each. What does it mean if a number is more than another number? What does it mean if a numbers is less than another number? When would it be helpful for you to know whether a number is odd or even? When would it be helpful to know if a number is more or less in comparison to another number?

#### Content (the "Meat")

#### **Problem of the Day**

There are 9 pairs of socks in the laundry. How many socks are there all together?

#### **Fact Practice**

Fact Practice for 1<sup>st</sup> grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 6, 9 and 15. Have students write the entire Fact Family on the white board.

6 + 9 = 15

9 + 6 = 15

15 - 6 = 9

15 - 9 = 6

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 6, 9, and 15.

# **Math Vocabulary**

#### Word for today: odd

**Description**: The term odd refers to a number that is not said when you are counting by 2s. An odd number when divided by two will not have equal shares. Odd numbers include numbers that end in the digits 1, 3, 5, 7, and 9.

Have children complete the vocabulary notebook for the word context.

**Vocabulary Notebook Sample:** 

New Word	My Description
odd	1, 3, 5, 7, and 9 are odd
Personal Connection	Drawing
7 is an odd number.	even

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

# Activity Number

#### Odd, Even, More, Less

Knowing whether a number is odd or even is important. Ad odd number is one that is **NOT** said when you count by 2s. Odd numbers include: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19 and 21. Even numbers are the numbers that you say when you count by 2s. Even numbers include 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, and 22.

Other terms that are important to understand are the words more and less. Knowing whether something is 1 more, 1 less, 10 more, 10 less, and so on, helps students become more familiar with numbers.

Demonstrate several of odd, even, more, less numbers on the board. Have children talk about how they have determined whether the number is odd, even, more or less.

#### Odd, Even, More, Less

#### Directions:

- 1. Divide students into pairs.
- 2. Give each pair a deck of Odd, Even, More, Less cards.



- 3. Together the pair draws a card, determines what the answer is, and then draws a second card.
- 4. Activity is over when students have reviewed each of the cards and determined if the numbers are odd, even, more or less.

	Closing
	Review
Say:	
Please recap what we did today.	
<ul> <li>Did we achieve our objectives?</li> </ul>	
	Debrief
What did you like about what we did today in math?	
What would you like to do more of the next time we do	o math?
Give examples of even numbers.	

# Reflection (Confirm, Tweak, Aha!)

Give examples of odd numbers.

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



 $1^{st}$  Grade Odd, Even, More, Less

What number is 1 more than 56?	What number is 10 more than 60?	What number is 1 less than 32?	What number is 1 less than 20?
What number is 10 more than 28?	What number is 10 less than 13?	What number is 10 less that 73?	What number is 1 more than 89?
What number is 10 more than 25?	What number is 1 more than 57?	What number is 1 less than 76?	What number is 1 more than 18?
What number is10 more than 28?	What number is 10 less than 65?	What number is 1 more than 3?	What number is 1 less than 92?
Is 28 odd or even?	Is 19 odd or even?	Is 37 odd or even?	Is 72 odd or even?
Is 64 odd or even?	Is 94 odd or even?	Is 21 odd or even?	Is 19 odd or even?
Is 26 odd or even?	Is 90 odd or even?	Is 53 odd or even?	Is 11 odd or even?



Component	Math
Grade Level:	First Grade
Lesson Title:	Making Sense of Terms
Focus:	Mathematics

Materials:

White boards

Activity at the end of this lesson plan

Crayolas

Socks (use as erasers)

#### **Opening**

## State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What are some of the math terms that we use when we talk about math? Make a list of those words. Encourage children to look in their Vocabulary Notebook. What are some of the words that tell us position? (right, left, up, down, between, over, under). Ask children to stand up and act out those words.

#### Content (the "Meat")

## **Problem of the Day**

Jill, Jack, and Mary each picked strawberries. Jill picked 4 baskets. Jack picked 3 baskets. Mary picked 6 baskets. Write a number sentence to show how you will find the total number of baskets strawberries.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



**Today** you will introduce this activity and begin with the Fact Family of 3, 5, and 8. Have students write the entire Fact Family on the white board.

3 + 5 = 8

5 + 3 = 8

8 - 3 = 5

8 - 5 = 3

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 3, 5 and 8.

## **Math Vocabulary**

Word for Today: term

**Description**: The word "term" refers to words that have a particular meaning in mathematics. For example, the word "carry" means to hold something in your arms. In math it means to move tens to the left if a sum is 10 or over. Other terms are positional like over, under, right, left, between, and so on.

Have children make an entry in the Vocabulary Notebook for the word **term**.

**Vocabulary Notebook Sample:** 

New Word	My Description
term	a word that describes math
Personal Connection	Drawing
What does the term "over" mean?	term

It is important to review academic math vocabulary often throughout the day.
Complete the Vocabulary notebook for each word.
When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).
Vocabulary Notebooks can be made from ½ of a composition book.

# Activity Math Terms

#### Making Sense of Key Terms

There are some key terms that 1<sup>st</sup> graders need to understand. Some of those terms are: near, far, below, above, up, down, behind, in front of, next to, left, right. In order to ensure that children understand these concepts it is important that they practice.

Today you are going to give the children a grid and then you are going to make statements and ask them to draw or write the symbol that answers the question.

Practice with the children first by reviewing the terms above and also illustrating things on the board and asking them questions about those pictures.

Divide students into pairs and give each pair a grid and crayons.

The questions to ask the children are attached to this lesson plan.



	Closing
	Review
Say:	
<ul> <li>Please recap what we did today.</li> </ul>	
<ul> <li>Did we achieve our objectives?</li> </ul>	
	Debrief
What did you like about today's lesson?	
How can you use the information from today during class tomorrow?	
What is one key learning you had today in math?	

# Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.



# 1st Grade Making Sense of Key Terms

В	Н		3		
X			<b>→</b>	7	+
2	=	•••	5		



# 1st Grade Making Sense of Key Terms

- 1. Draw a picture of what is below the star.
- 2. Draw a picture of what is to the right of the heart.
- 3. What is above the 7? Draw it.
- 4. Start on the equals sign. Move 2 spaces up. Draw what you see there.
- 5. What is the left of the 3? Draw it.
- 6. Start on the arrow in the upper right hand corner. Move 2 spaces down and draw what you see there.
- 7. What is next to the square? Draw it.
- 8. What two items are nearest to the 2? Draw them.
- 9. What item is furthest from the square? Draw it.
- 10. What surrounds the star? Draw those items.
- 11. What is to the left of the plus sign? Draw it.
- 12. What is above the 5? Draw it.
- 13. What is below the H? Draw it.
- 14. What is far away from the 2? Draw it.
- 15. What two items are nearest to the B? Draw them.
- 16. What is under the sad face? Draw it.
- 17. What is to the right of the triangle? Draw it.
- 18. What is below the heart? Draw it.
- 19. What is below the 3? Draw it.
- 20. What is between the happy face and the circle? Draw it.



Component	Math
Grade Level:	First Grade
Lesson Title:	Making Sense of Terms
Focus:	Mathematics

Materials:		
White boards	Activity at the end of the lesson plan	
Crayolas		
Socks		

#### **Opening**

# State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What are some of the math terms that we use when we talk about math? Make a list of those words. Encourage children to look in their Vocabulary Notebook. What are some of the words that tell us position? (right, left, up, down, between, over, under). Ask children to stand up and act out those words.

#### Content (the "Meat")

#### **Problem of the Day**

Lisa has one blue shirt and one red shirt. She has 1 green skirt and 1 yellow skirt. How many different outfits can she wear? Draw a picture of your answer.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 4, 5, and 9.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



Have students write the entire Fact Family on the white board.

4 + 5 = 9

5 + 4 = 9

9 - 4 = 5

9 - 5 = 4

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 4, 5, and 9. Ask students to give you examples of doubles. Ask students to tell how doubles are different than other fact families.

#### Math Vocabulary

Word for Today: term

**Description**: The word "term" refers to words that have a particular meaning in mathematics. For example, the word "carry" means to hold something in your arms. In math it means to move tens to the left if a sum is 10 or over. Other terms are positional like over, under, right, left, between, and so on.

Have children make an entry in the Vocabulary Notebook for the word term.

**Vocabulary Notebook Sample:** 

New Word	My Description
term	a word that describes math
Personal Connection	Drawing
What does the term "over" mean?	term

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can

be made from ½ of a composition book.

Activity
Math Terms

#### Making Sense of Key Terms

There are some key terms that 1<sup>st</sup> graders need to understand. Some of those terms are: near, far, below, above, up, down, behind, in front of, next to, left, right. In order to ensure that children understand these concepts it is important that they practice.

Today you are going to give the children a grid and then you are going to make statements and ask them to draw or write the symbol that answers the question.

Practice with the children first by reviewing the terms above and also illustrating things on the board and asking them questions about those pictures.

Divide students into pairs and give each pair a grid and crayons.

The questions to ask the children are attached to this lesson plan.



# Closing

#### **Review**

# Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### **Debrief**

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

Give an example of how you will use what we did today in school tomorrow.

# Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.



# 1st Grade Making Sense of Key Terms

В	Н		3		<b>—</b>
X			<b></b>	7	+
2	=	•	5		



# 1st Grade Making Sense of Key Terms

- 1. Draw a picture of what is below the star.
- 2. Draw a picture of what is to the right of the heart.
- 3. What is above the 7? Draw it.
- 4. Start on the equals sign. Move 2 spaces up. Draw what you see there.
- 5. What is the left of the 3? Draw it.
- 6. Start on the arrow in the upper right hand corner. Move 2 spaces down and draw what you see there.
- 7. What is next to the square? Draw it.
- 8. What two items are nearest to the 2? Draw them.
- 9. What item is furthest from the square? Draw it.
- 10. What surrounds the star? Draw those items.
- 11. What is to the left of the plus sign? Draw it.
- 12. What is above the 5? Draw it.
- 13. What is below the H? Draw it.
- 14. What is far away from the 2? Draw it.
- 15. What two items are nearest to the B? Draw them.
- 16. What is under the sad face? Draw it.
- 17. What is to the right of the triangle? Draw it.
- 18. What is below the heart? Draw it.
- 19. What is below the 3? Draw it.
- 20. What is between the happy face and the circle? Draw it.



Component	Math
Grade Level:	First Grade
Lesson Title:	Measuring Time
Focus:	Time

Materials:

White boards Activity at the end of the lesson plan

Cravolas

Socks (for erasers)

#### **Opening**

## State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Focus Student's Prior Knowledge

What do you know about telling time? What is an analog clock? Draw one and show the time 3:00. How many numbers are on the clock face? How do you write time?

## Content (the "Meat")

#### **Problem of the Day**

Draw and AB pattern. How do you know that you are correct?

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 5, 5, and 10. Have students write the entire Fact Family on the white board.

5 + 5 = 10

5 + 5 = 10

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



10 - 5 = 5

10 - 5 = 5

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 5, 5, and 10.

# **Math Vocabulary**

#### Word for Today: time

**Description:** The term time refers to a way we measure seconds, minutes, hours, days, weeks, months, and years. Time is usually measured by a clock or a watch. Time can be on an analog clock (round face with 12 numbers), or a digital clock (5:30). We also use calendars. Before clocks, people used the sun.

Have children review the Vocabulary notebook for the word time.

**Vocabulary Notebook Sample:** 

Vocabalary Hotebook Gampie.	
New Word	My Description
time	seconds, minutes, hours, days, weeks, months, and years
Personal Connection	Drawing
What time is it?	4:30

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a

composition book.

# Activity Time

# **Measuring Time**

There are two kinds of clocks. One is the analog clock. It looks like a circle and has numbers 1-12 around the edge of the circle. It has two hands, an hour hand that points to the hour and a minute hand that points to the minutes. The minute hand is longer than the hour hand. When the minute hand points to the 12, we say the number that the hour hand is pointing to and then say "o'clock". For instance, if the hour hand is pointing to the four and the minute hand is pointing to the 12, we would say four o'clock, 4:00. When the minute hand is pointing to the six, we look at the hour hand, say that number and then follow by the word thirty. When the minute hand is pointing to the 6 it means that it is 30 minutes after the hour. So if the minute hand is at the 6 while the hour hand is at the four, we would say, four thirty, 4:30. It is expected that 1st graders would be able to tell time on an analog clock to the hour and the half hour or 30 minutes.

The second kind of clock is a digital clock. A digital clock is usually a rectangular shape. The hour is the first number written. It is followed by a colon (:), and then the information about the minutes. The time is written 4:00 or 4:30.

Draw several clocks on the board or chart paper and decide what time the clock is indicating. Practice until the children are comfortable telling time.



#### What Time Is It?

#### Directions:

- 1. Divide students into pairs.
- 2. Give each pair a set of What Time Is It cards.
- 3. Shuffle the cards and place the 20 cards face down in a 5 by 4 grid.
- 4. Player 1 turns over two cards, trying to match an analog and digital clock with the same time.
- 5. If player is successful, he/she keeps the cards. If not successful, he/she returns the cards to the spot they were in, placing them face down.
- 6. Game is over when all of the cards have been collected.

	Closing
	Review
Say:	
Please recap what we did today.	
<ul> <li>Did we achieve our objectives?</li> </ul>	
	Debrief
What did you like about what we did today in math?	
What is an analog clock?	
What is a digital clock?	

## Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



# 1st Grade What Time Is It?

11 12 1 10 2 9 3 3 8 4 7 6 5	11 12 1 10 2 9 3 8 4 7 6 5	11 12 1 10 2 9	11 12 1 10 2 9 3 8 4 7 6 5
11 12 1 10 2 9 3 8 4 7 6 5	11 12 1 10 2 9 3 8 7 6 5	11 12 1 10 2 9 3 8 7 6 5	11 12 1 10 2 9 3 8 4 7 6 5
11 12 1 2 9 3 8 4 7 6 5	11 12 1 10 2 9 3 8 4	11 12 1 10 2 9 3 8 4	11 12 1 10 2 9 4 3 8 4 7 6 5
11 12 1 10 2 9 3 8 4 7 6 5	11 12 1 10	11 12 1 10 2 9 3 8 4 7 6 5	11 12 1 10 2 9 3 8 4
11 12 1 10 2 9 3 8 4 7 6 5	11 12 1 10 2 9 3 8 4 7 6 5	11 12 1 10 2 9 3 8 4 7 6 5	11 12 1 10 2 9 3 8 4 7 6 5



9:30	11:30	6:30	11:00
2:30	8:30	4:30	10:30
1:00	5:00	7:00	9:00
7:30	12:30	6:00	2:00
1:30	10:00	4:00	8:00



Component	Math
Grade Level:	First Grade
Lesson Title:	Measuring Time
Focus:	Time

**Materials:** 

White boards

Activity at the end of the lesson plan

Crayolas

Socks (use as erasers)

#### **Opening**

## State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about telling time? What is an analog clock? Draw one and show the time 3:00. How many numbers are on the clock face? How do you write time?

## Content (the "Meat")

#### **Problem of the Day**

There are 17 boys and 11 girls in Mrs. Jones' class. How many students are in the class all together? How many more boys than girls?

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 5, 6, and 11. Have students write the entire Fact Family on the white board.

5 + 6 = 11

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



6 + 5 = 11

11 - 5 = 6

11 - 6 = 5

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 5, 6 and 11.

# **Math Vocabulary**

## Word for Today: time

**Description:** The term time refers to a way we measure seconds, minutes, hours, days, weeks, months, and years. Time is usually measured by a clock or a watch. Time can be on an analog clock (round face with 12 numbers), or a digital clock (5:30). We also use calendars. Before clocks, people used the sun.

Have children review the Vocabulary notebook for the word time.

**Vocabulary Notebook Sample:** 

Now Wood	Mr. Decembries
New Word time	My Description  seconds, minutes, hours, days, weeks, months, and years
Personal Connection	Drawing
What time is it?	4:30

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can

be made from ½ of a composition book.

Activity Time

# Measuring Time

There are two kinds of clocks. One is the analog clock. It looks like a circle and has numbers 1-12 around the edge of the circle. It has two hands, an hour hand that points to the hour and a minute hand that points to the minutes. The minute hand is longer than the hour hand. When the minute hand points to the 12, we say the number that the hour hand is pointing to and then say "o'clock". For instance, if the hour hand is pointing to the four and the minute hand is pointing to the 12, we would say four o'clock, 4:00. When the minute hand is pointing to the six, we look at the hour hand, say that number and then follow by the word thirty. When the minute hand is pointing to the 6 it means that it is 30 minutes after the hour. So if the minute hand is at the 6 while the hour hand is at the four, we would say, four thirty, 4:30. It is expected that 1st graders would be able to tell time on an analog clock to the hour and the half hour or 30 minutes.

The second kind of clock is a digital clock. A digital clock is usually a rectangular shape. The hour is the first number written. It is followed by a colon (:), and then the information about the minutes. The time is written 4:00 or 4:30.

Draw several clocks on the board or chart paper and decide what time the clock is indicating. Practice until the children are comfortable telling time.



#### What Time Is It?

## **Directions:**

- 1. Divide students into pairs.
- 2. Give each pair a set of What Time Is It cards.
- 3. Shuffle the cards and place the 20 cards face down in a 5 by 4 grid.
- 4. Player 1 turns over two cards, trying to match an analog and digital clock with the same time.
- 5. If player is successful, he/she keeps the cards. If not successful, he/she returns the cards to the spot they were in, placing them face down.
- 6. Game is over when all of the cards have been collected.

	Closing	
	Review	
Say:		
<ul> <li>Please recap what</li> </ul>	t we did today.	
<ul> <li>Did we achieve or</li> </ul>	ır objectives?	
	Debrief	
What did you like about w	nat we did today in math?	
What do you know about	a calendar?	
What are the names of the	emonth?	
What are the names of the	days of the week?	

## Reflection (Confirm, Tweak, Aha!)

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.



# 1st Grade What Time Is It?

11 12 1	11 12 1	11 12 1	10 12 1
10 2	10 2	10 2	10 2
9 3 3	9 3	9 3	9 3
8 4	8 4	8 4	8 4
7 6 5	7 6 5	7 $\checkmark_6$ 5	7 6 5
11 12 1 10 2 9 3 8 4	11 12 1 10 2 9 3 8 7 6 5	11 12 1 10 2 9 3 8 7 6 5	11 12 1 10 2 9 3 8 4 7 6 5
11 12 1	11 12 1	11 12 1	11 12 1
10 2 2	10 2	10 2	10 2
9 3	9 3	9 3	9 4 3
8 4	8 4	8 4	8 4
7 6 5	7 6 5	7 5 5	7 6 5
11 12 1 10 2 9 3 8 4 7 6 5	11 12 1 10	11 12 1 10 2 9 3 8 4 7 6 5	11 12 1 10 2 9 3 8 4 7 6 5
11 12 1	11 12 1	11 12 1	11 12 1
10 2	10 2	10 2	10 2
9 3	9 3	9 3	9 3
8 4	8 4	8 4	8 4
7 6 5	7 6 5	7 6 5	7 6 5



9:30	11:30	6:30	11:00
2:30	8:30	4:30	10:30
1:00	5:00	7:00	9:00
7:30	12:30	6:00	2:00
1:30	10:00	4:00	8:00



Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun!
Focus:	Review

**Materials:** 

White boards

Materials for games played the past 10 days

Crayolas

Socks (use for erasers)

#### **Opening**

## State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

Ask children what they know about addition and subtraction. Ask them to share what they do to write number sentences? Ask them about story problems and how they connect to number sentences?

# Content (the "Meat")

#### **Problem of the Day**

The store has 5 Raggedy Ann dolls. Each doll has 2 button eyes. How many buttons are there on all of the Raggedy Ann dolls?

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 7, 5, and 12 Have students write the entire Fact Family on the white board.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



5 + 7 = 12

7 + 5 = 12

12 - 5 = 7

12 - 7 = 5

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 7, 5, and 12.

#### Activity

Today is a review day. Students should select from the following list of activities:

Greater Than, Less Than Addition or Subtraction Odd, Even, More, Less Making Sense of Terms What Time Is It? Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

## Closing

#### **Review**

## Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### **Debrief**

Which of the games did you enjoy playing the most?

What about this game is fun for you?

## Reflection (Confirm, Tweak, Aha!)

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component	Math
Grade Level:	First Grade
Lesson Title:	Name That Coin
Focus:	Money

**Materials:** 

White boards

dice (3 for each pair)

Cravolas

Socks (for erasers)

#### **Opening**

## State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about money.

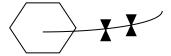
## Gain prior knowledge by asking students the following questions

What do you know about money? What are the common coins that we use? What are the common bills? If you think of the common coins, how many of each does it take to make a dollar? What two ways can you write money?

# Content (the "Meat")

## **Problem of the Day**

John's kite has 6 sides. Mark's kite has 6 sides. Louis has 6 sides as well. How many sides are there in total?



#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the

# \*Activity → Teachable Moment(s) throughout

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



correct response.

Today you will introduce this activity and begin with the Fact Family of 5, 8, and 13. Have students write the entire Fact Family on the white board.

5 + 8 = 13

8 + 5 = 13

13 - 5 = 8

13 - 8 = 5

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 5, 8 and 13..

#### Math Vocabulary

#### Word for Today: coins

**Description:** The term coin refers to the pennies, nickels, dimes, and quarters that we use. These coins can equal a dollar. There are 100 pennies in \$1.00. There are 20 nickels in \$1.00. There are 10 dimes in \$1.00. There are 4 quarters in \$1.00. There are other comparisons that we need to be able to make. Pennies to nickels and dimes, ways to make \$.25, and so on.

Review the entry for the term "coin" in your Vocabulary Notebook. Share with a peer.

**Vocabulary Notebook Sample:** 

New Word	My Description
coin	penny, nickel, dime and quarter
Personal Connection	Drawing
I have 25¢ in my pocket.	© (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)

It is important to review academic math vocabulary often throughout the day.
Complete the Vocabulary notebook for each word.
When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).
Vocabulary Notebooks can

be made from ½ of a composition book.

Students will complete this notebook for each vocabulary word that they are given.

### Activity Money

#### Money Review

During the year we have looked at the different coins we have in America. We have four main coins: penny, nickel, dime, and quarter. A penny is worth 1 cent, a nickel worth 5 cents, a dime worth 10 cents and a quarter worth 25 cents. We can note money that is less than a dollar by using the cent sign:  $\phi$ , or by writing the amount as a part of a dollar: \$.\*\*.

When calculating the value of a group of coins, start with the value of the largest coin and then work your way down to the smallest. For example, if you have a quarter, dime, three nickels and 2 pennies, you would start with  $25\phi$ , add  $10\phi$  to make  $35\phi$  (this is like counting by tens), then you would count by 5s for the three nickels: beginning at  $35\phi$ , 1 nickel would make  $40\phi$ , a second nickel  $45\phi$ , the third nickel  $50\phi$ , and then you would

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



count 2 additional pennies, saying 51¢ and finally 52¢. Practice counting coins in this way until the children are comfortable counting the coins.

Then reverse the process, writing the total and then asking children to start with the largest coin, and keep adding coins until they reach the total. For example if the total is  $79\phi$ , you would start with a quarter for  $25\phi$ , a second quarter for  $50\phi$ , and finally a third quarter for  $75\phi$ , and then 4 pennies to reach  $79\phi$ . Demonstrate how you would draw the coins by making circles and putting the coin value inside.

#### **Name Those Coins**

#### **Directions:**

- 1. Divide students into pairs.
- 2. Give each pair a Name Those Coins card and a piece of paper.
- 3. Ask students to fold the paper so they have 16 rectangles.
- 4. Working together, students will look at the amount of money and then draw that amount on the paper, using as few coins as possible.
- 5. When pair is finished, pair should meet with another group and compare work.

#### Closing

#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What does it mean when we say we found an answer by addition?

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



# 1st Grade Name Those Coins

40¢	65¢	54¢	72¢
\$.96	\$.43	\$.35	\$.45
60¢	70¢	29¢	47¢
\$.75	\$.41	\$.86	\$.78
64¢	52¢	31¢	19¢
\$.23	\$.39	\$.69	\$.84



Component	Math
Grade Level:	First Grade
Lesson Title:	Coins
Focus:	Money

Materials:
White boards Activity at the end of the lesson plan
Crayolas
Socks

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about addition? What do you know about subtraction? What are the words we use to describe the answers in an addition problem? What are the words we use to describe the answers in a subtraction problem? Write several addition and subtraction problems on the board. Ask children to come to the board and solve the problems.

#### Content (the "Meat")

#### **Problem of the Day**

Write the largest three digit number you can using the digits below.

3 8 2

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



**Today** you will introduce this activity and begin with the Fact Family of 5, 9, and 14. Have students write the entire Fact Family on the white board.

5 + 9 = 14

9 + 5 = 14

14 - 5 = 9

14 - 9 = 5

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 5, 9, and 14. Share with students that this fact is a double—the addends are the same.

#### Math Vocabulary

#### Word for Today: coins

**Description:** The term coin refers to the pennies, nickels, dimes, and quarters that we use. These coins can equal a dollar. There are 100 pennies in \$1.00. There are 20 nickels in \$1.00. There are 10 dimes in \$1.00. There are 4 quarters in \$1.00. There are other comparisons that we need to be able to make. Pennies to nickels and dimes, ways to make \$.25, and so on.

Review the entry for the term "coin" in your Vocabulary Notebook. Share with a peer.

**Vocabulary Notebook Sample:** 

New Word	My Description
coin	penny, nickel, dime and quarter
Personal Connection	Drawing
I have 25¢ in my pocket.	1 200 €

Students will complete this notebook for each vocabulary word that they are given.

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation)

Vocabulary Notebooks can be made from ½ of a composition book

# Activity Money

### Money Review

During the year we have looked at the different coins we have in America. We have four main coins: penny, nickel, dime, and quarter. A penny is worth 1 cent, a nickel worth 5 cents, a dime worth 10 cents and a quarter worth 25 cents. We can note money that is less than a dollar by using the cent sign:  $\phi$ , or by writing the amount as a part of a dollar: \$.\*\*.

When calculating the value of a group of coins, start with the value of the largest coin and then work your way down to the smallest. For example, if you have a quarter, dime, three nickels and 2 pennies, you would start with  $25\phi$ , add  $10\phi$  to make  $35\phi$  (this is like counting by tens), then you would count by 5s for the three nickels: beginning at  $35\phi$ , 1

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



nickel would make  $40\phi$ , a second nickel  $45\phi$ , the third nickel  $50\phi$ , and then you would count 2 additional pennies, saying  $51\phi$  and finally  $52\phi$ . Practice counting coins in this way until the children are comfortable counting the coins.

Then reverse the process, writing the total and then asking children to start with the largest coin, and keep adding coins until they reach the total. For example if the total is  $79\phi$ , you would start with a quarter for  $25\phi$ , a second quarter for  $50\phi$ , and finally a third quarter for  $75\phi$ , and then 4 pennies to reach  $79\phi$ . Demonstrate how you would draw the coins by making circles and putting the coin value inside.

#### **Name Those Coins**

#### Directions:

- 1. Divide students into pairs.
- 2. Give each pair a Name Those Coins card and a piece of paper.
- 3. Ask students to fold the paper so they have 16 rectangles.
- 4. Working together, students will look at the amount of money and then draw that amount on the paper, using as few coins as possible.
- 5. When pair is finished, pair should meet with another group and compare work.

#### Closing

#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

Name the coins and the value of each.

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



# 1st Grade Name Those Coins

40¢	65¢	54¢	72¢
\$.96	\$.43	\$.35	\$.45
60¢	70¢	29¢	47¢
\$.75	\$.41	\$.86	\$.78
64¢	52¢	31¢	19¢
\$.23	\$.39	\$.69	\$.84



Component	Math
Grade Level:	First Grade
Lesson Title:	Recognition of Fractions
Focus:	Fractions

Materials:
White boards dice (3 for each pair)
Crayolas

Socks (for erasers)

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about fractions? What does the top number represent? How about the bottom number? If you have <sup>3</sup>/<sub>4</sub> you have 3 of the 4 pieces you would have if you had a whole thing. What are some other common fractions that you know?

#### Content (the "Meat")

#### **Problem of the Day**

There are 14 cupcakes on the plate. John eats 3 cupcakes. Millie eats 2 cupcakes. How many cupcakes are still on the plate? How do you know?

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 6, 6, and 12. Have students write the entire Fact Family on the white board.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



6 + 6 = 12

6 + 6 = 12

12 - 6 = 6

12 - 6 = 6

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 6, 6 and 12.

#### **Math Vocabulary**

Word for Today: fraction

**Description:** The fraction represents less than a whole. The bottom number, the denominator, tells you how many pieces there are if you had the whole thing. The top number, the numerator, tells you how many of the total number of pieces you have. If you have the fraction 3/4, it means that you have 3 of the 4 pieces the whole thing was divided into.

Create an entry for the term "fraction" in your Vocabulary Notebook. Share with a peer.

Vocabulary Notebook Sample:

New Word	My Description
fraction	two numbers, one on top of the other, that indicate less than a whole item
Personal Connection	Drawing
I will each ½ of a sandwich for lunch.	12

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation). Vocabulary Notebooks can be made from ½ of a

composition book.

### Activity Fractions

#### **Fractions**

A fraction is a way to represent a part of a whole. For example, when you eat a sandwich, it has probably been cut in half and you eat ½ at a time. Sometimes you need to divide a cookie between you and your friend and you each end up with ½. If you get pizza, you don't usually eat the whole pizza, and most pizzas are divided into 8 pieces, so each piece you eat is 1/8 of the whole pizza.

Fractions have two numbers. The bottom number tells you how many pieces you have divided the whole thing into (2 pieces of cookie, 8 pieces of pizza), and the top number tells you how much of the whole thing, or the number of pieces that you have. If you have \( \frac{1}{2} \) of a cookie, you have one of the two pieces. If you eat 3 pieces of pizza, you have 3/8 of the pizza—three of the eight pieces in a whole pizza.

Work through several problems with children. Use a denominator of 1, 2, 3, 4, or 8 only. When students are comfortable identifying and writing the fractions represented, they are ready to play the game below.

# **How Many Pieces?**

#### **Directions:**

1. Divide students into pairs.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



- 2. Give each pair a How Many Pieces card and either a white board or paper.
- 3. Working together the pair will identify a fraction to explain the drawing, or draw a picture to explain the fraction.
- 4. When paid is finished, they should join another pair and compare the work they have done as well as the key learning.

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#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

What is a number?

What is a letter?

Are they the same?

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



1st Grade How Many Pieces?

$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{4}$	$\frac{2}{3}$
$\frac{3}{4}$	$\frac{3}{8}$	<u>5</u> 8	<del>7</del> 8





Component	Math
Grade Level:	First Grade
Lesson Title:	Recognizing Fractions
Focus:	Fractions

Materials:

White boards decks of cards with face cards and jokers removed

Crayolas Activity at the end of the lesson plan

Socks (for erasers)

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about fractions? What does the top number represent? How about the bottom number? If you have <sup>3</sup>/<sub>4</sub> you have 3 of the 4 pieces you would have if you had a whole thing. What are some other common fractions that you know?

#### Content (the "Meat")

#### **Problem of the Day**

The sun sets in the west every day. Is it likely that the sun will set in the west today? Explain your thinking.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 3, 4, and 7.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



Have students write the entire Fact Family on the white board.

3 + 4 = 7

4 + 3 = 7

7 - 4 = 3

7 - 3 = 4

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 3, 4, and 7.

#### **Math Vocabulary**

#### Word for Today: fraction

**Description:** The fraction represents less than a whole. The bottom number, the denominator, tells you how many pieces there are if you had the whole thing. The top number, the numerator, tells you how many of the total number of pieces you have. If you have the fraction  $\frac{3}{4}$ , it means that you have 3 of the 4 pieces the whole thing was divided into.

Create an entry for the term "fraction" in your Vocabulary Notebook. Share with a peer.

**Vocabulary Notebook Sample:** 

New Word	My Description
fraction	two numbers, one on top of the other, that indicate less than a whole item
Personal Connection	Drawing
I will each ½ of a sandwich for lunch.	1/2

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary

notebook for each word.
When possible, have

students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

Students will complete this notebook for each vocabulary word that they are given.

# Activity Fractions

#### **Fractions**

A fraction is a way to represent a part of a whole. For example, when you eat a sandwich, it has probably been cut in half and you eat  $\frac{1}{2}$  at a time. Sometimes you need to divide a cookie between you and your friend and you each end up with  $\frac{1}{2}$ . If you get pizza, you don't usually eat the whole pizza, and most pizzas are divided into 8 pieces, so each piece you eat is  $\frac{1}{8}$  of the whole pizza.

Fractions have two numbers. The bottom number tells you how many pieces you have divided the whole thing into (2 pieces of cookie, 8 pieces of pizza), and the top number tells you how much of the whole thing, or the number of pieces that you have. If you have ½ of a cookie, you have one of the two pieces. If you eat 3 pieces of pizza, you have 3/8 of the pizza—three of the eight pieces in a whole pizza.

Work through several problems with children. Use a denominator of 1, 2, 3, 4, or 8 only. When students are comfortable identifying and writing the fractions represented, they are ready to play the game below.

**How Many Pieces?** 

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



#### **Directions:**

- 1. Divide students into pairs.
- 2. Give each pair a How Many Pieces card and either a white board or paper.
- 3. Working together the pair will identify a fraction to explain the drawing, or draw a picture to explain the fraction.
- 4. When paid is finished, they should join another pair and compare the work they have done as well as the key learning.

	Closing
	Review
Say:	
Please recap what we did today.	
<ul> <li>Did we achieve our objectives?</li> </ul>	
	Debrief
What did you like about what we did today in math?	
How can you use the information from today in school tor	norrow?

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.



1st Grade How Many Pieces?

$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{4}$	$\frac{2}{3}$
$\frac{3}{4}$	$\frac{3}{8}$	<u>5</u> 8	<del>7</del> 8





Component	Math
Grade Level:	First Grade
Lesson Title:	Gummy Bears
Focus:	Graphs

Materials:

White boards Activity at the end of this lesson plan

Crayolas Gummy Bears
Socks (for erasers) 2 ounce Dixie Cups

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What is a graph? When do you use them? How do you make one? Why is it that sharing information this way is very powerful and helps people to understand what you are trying to communicate? What is a bar graph?

#### Content (the "Meat")

#### **Problem of the Day**

Stamps cost 44¢. If you have 2 stamps, how much do the stamps cost?

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 3, 5, and 8.. Have students write the entire Fact Family on the white board.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



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5 + 3 = 8

8 - 3 = 5

8 - 5 = 3

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 3, 5, and 8.

#### **Math Vocabulary**

#### Word for today: graph

**Description**: The term graph refers to a diagram of value that is in either lines or bars. You collect information and data and then share it with others through this diagram. Graphs are used to make information clear to everyone.

Have children complete the vocabulary notebook for the word graph.

**Vocabulary Notebook Sample:** 

New Word	My Description
graph	a chart that shows values of certain items
Personal Connection	Drawing
I made a graph to show how many people like raisins.	

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

# Activity Graphs

A graph is a diagram that usually shows values as lines or bars. By looking at a graph we can quickly understand information.

Graph several things with the students, creating the graph as you go. The first graph should be the age of the students. You could possibly have 3 different ages. Ask students to stand in a line the represents the age they currently are. Have each child come up and draw a face on the graph under their age. Then compare the data that the graph shows. The second graph you can make with children is to have them stand in a line based on the month they were born. Repeat the process that you did for age.

Explain that today they are going to graph Gummy Bears. Each pair will be given a number of Gummy Bears and that they will need to graph them. Discuss how they might graph the bears (probably the attribute of color will be the best choice). After you have explained the activity, students are ready to work on the activity.

# Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

### **Gummy Bears**

#### **Directions:**

- 1. Divide students into pairs.
- 2. Give each pair a cup or package of Gummy Bears, a piece of paper and a box of crayons.
- 3. Ask each pair to work together to create a graph that they can share with other



- students that will demonstrate the Gummy Bears they have.
- 4. Have students create at least 3 questions that can be answered by their graph.
- 5. When graphs are finished, have pairs share the graphs with the class.
- 6. When the sharing is finished, pair may eat the Gummy Bears.

	Closing
	Review
Say:	
<ul> <li>Please recap what we did today.</li> </ul>	
<ul> <li>Did we achieve our objectives?</li> </ul>	
	Debrief
What did you like about what we did today in math?	
What would you like to do more of next time?	
What are 8 different even numbers?	
What are 8 different odd numbers?	

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component	Math
Grade Level:	First Grade
Lesson Title:	Lucky Charms
Focus:	Graphs

Materials:

White boards
Crayolas
Socks (for erasers)

Activity at the end of the lesson plan

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What is a graph? When do you use them? How do you make one? Why is it that sharing information this way is very powerful and helps people to understand what you are trying to communicate? What is a bar graph?

Content (the "Meat"
Problem of the Day

Write the numbers below from the smallest to the largest.

41 37 56 73 46 65

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



#### correct response.

**Today** you will introduce this activity and begin with the Fact Family of 3, 6, and 9. Have students write the entire Fact Family on the white board.

3 + 6 = 9

6 + 3 = 9

9 - 3 = 6

9 - 6 = 3

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 3, 6, and 9.

#### Math Vocabulary

#### Word for today: graph

**Description**: The term graph refers to a diagram of value that is in either lines or bars. You collect information and data and then share it with others through this diagram. Graphs are used to make information clear to everyone.

Have children complete the vocabulary notebook for the word graph.

**Vocabulary Notebook Sample:** 

New Word	My Description
graph	a chart that shows values of certain items
Personal Connection	Drawing
I made a graph to show how many people like raisins.	

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can

be made from ½ of a composition book.

#### **Activity**

#### **Graphs**

A graph is a diagram that usually shows values as lines or bars. By looking at a graph we can quickly understand information.

Graph several things with the students, creating the graph as you go. The first graph should be the age of the students. You could possibly have 3 different ages. Ask students to stand in a line the represents the age they currently are. Have each child come up and draw a face on the graph under their age. Then compare the data that the graph shows. The second graph you can make with children is to have them stand in a line based on the month they were born. Repeat the process that you did for age.

Explain that today they are going to graph Lucky Charms. Each pair will be given a number of Lucky Charms and that they will need to graph them. Discuss how they might graph the cereal (color, shapes, etc.). After you have explained the activity, students are ready to work on the activity.

# Lucky Charms Directions:

1. Divide students into pairs.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



- 2. Give each pair a cup of Lucky Charms, a piece of paper and a box of crayons.
- 3. Ask each pair to work together to create a graph that they can share with other students that will demonstrate the Lucky Charms they have.
- 4. Have students create at least 3 questions that can be answered by their graph.
- 5. When graphs are finished, have pairs share the graphs with the class.
- 6. When the sharing is finished, pair may eat the Lucky Charms.

#### Closing

#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### **Debrief**

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

Give examples of even numbers.

Give examples of odd numbers.

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- **4.** Ask them to comment on something (if anything) they have learned today that was brand new to them.



Component	Math
Grade Level:	First Grade
Lesson Title:	Stories to Number Sentences
Focus:	Word Problems

Materials:

White boards

Activity at the end of this lesson plan

Crayolas

Socks (use as erasers)

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

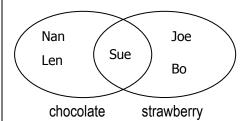
#### Gain prior knowledge by asking students the following questions

What do you know about word problems? How do the words inform a number sentence? If you have the number sentence 3 + 5 = 8, what is the story that could go along with it? If you have the story, John has 3 flowers. Mark has 8 flowers. How many do they have altogether? What is the number sentence you would write?

#### Content (the "Meat")

#### **Problem of the Day**

Look at the diagram below. What kind of ice cream does Sue like?



#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say,

"If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3 - 1 = 2, and 3 - 2 = 1".

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 3, 7, and 10. Have students write the entire Fact Family on the white board.

3 + 7 = 10

7 + 3 = 10

10 - 3 = 7

10 - 7 = 3

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 3, 7, and 10.

#### **Math Vocabulary**

#### Word for Today: word problems

**Description**: Math problems tell a story. Because we practice so often with just number sentences, 5 + 3 = 8, we forget that there is a story that caused the number sentence to be written in the way that it is. When we read a story, it is important to pay attention to the key words in the story so we know how to craft the number sentence.

Have children make an entry in the Vocabulary Notebook for the term **word problems**.

**Vocabulary Notebook Sample:** 

New Word	My Description
word problems	the story that informs the number sentence
Personal Connection	Drawing
The word problem said to add 3 cookies and 5 cookies.	1 rose + 1 rose = 2 roses

It is important to review academic math vocabulary often throughout the day.
Complete the Vocabulary notebook for each word.
When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).
Vocabulary Notebooks can

be made from ½ of a composition book.

#### Activity Word Problems

Most of the time math problems don't come in the format of numbers only. They come in the form of real-life problems that need to be answered. These problems are found in word problems. When students read the problems they must ask themselves what they are trying to find out. They then create a number sentence that represents the words. For example:

- 1. Joe has 8 cookies. Mark has 5 cookies. How many cookies do they have in all?
- 2. 8 cookies + 5 cookies = 13 cookies in all
  The first is the problem, the second the number sentence representing the problem.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



Sometimes you are given a number sentence and then are asking to create the story that goes along with the sentence.

Work through several examples with students, going from number sentence to story, and story to number sentence.

#### **Word Problems**

#### **Directions:**

- 1. Divide students into pairs.
- 2. Give each pair a Word Problem card and white board.
- 3. Working together, students create number sentences from the word problems, and word problems from the number sentences.
- 4. When pairs are finished, pair shares with another pair to see what each group has done
- 5. Bring group together and have children share several of the stories they have developed to explain the number sentence.

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#### **Review**

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### Debrief

What did you like about today's lesson?

How can you use the information from today during class tomorrow?

What is one key learning you had today in math?

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.

# 1st Grade Word Problems

A green string is 8 inches long. A blue string is 4 inches long. If you put the strings together, how long will it be?	It's lunch time. There are 12 students sitting at the green table and 21 students at the purple table. How many students are there all together?
You are in the library. There are 13 books on the top shelf and 25 books on the bottom shelf. How many books all together?	Lily had 38 cookies to take to school. She gave away 13 cookies before she got to school. How many cookies did she have when she got to school?
There are 11 cats sitting on the step. 5 cats get up and walk away. How many cats are left sitting on the step?	Joe read 18 books. Robin read 11 books. How many books did they read together?
8 + 7 = 15	9 + 12 = 21
4 + 3 = 7	37 – 12 = 25



Component	ent Math	
Grade Level: First Grade		
Lesson Title: Stories to Number Sentences		
Focus:	Word Problems	

Materials:		
White boards	Activity at the end of the lesson plan	
Crayolas		
Socks		

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What do you know about word problems? How do the words inform a number sentence? If you have the number sentence 6 + 5 = 11, what is the story that could go along with it? If you have the story, John has 9 marbles. He gives 5 to Mark. How many does he have left? What is the number sentence you would write?

Content (the "Me	eat'

#### **Problem of the Day**

John has 14 cupcakes. He hides 7 of them. How many cupcakes are hidden?

#### **Fact Practice**

Fact Practice for 1<sup>st</sup> grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

- 1 + 2 = 3
- 2 + 1 = 3
- 3 2 = 1
- 3 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 3, 8, and 11.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



Have students write the entire Fact Family on the white board.

3 + 8 = 11

8 + 3 = 11

11 - 3 = 8

11 - 8 = 3

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 3, 8 and 11. Ask students to give you examples of doubles. Ask students to tell how doubles are different than other fact families.

#### Math Vocabulary

#### Word for Today: word problems

**Description**: Math problems tell a story. Because we practice so often with just number sentences, 5 + 3 = 8, we forget that there is a story that caused the number sentence to be written in the way that it is. When we read a story, it is important to pay attention to the key words in the story so we know how to craft the number sentence.

Have children review the entry in the Vocabulary Notebook for the term **word problems**.

**Vocabulary Notebook Sample:** 

New Word	My Description		
word problems	the story that informs the number sentence		
Personal Connection	Drawing		
The word problem said to add 3 cookies and 5 cookies.	1 rose + 1 rose = 2 roses		

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a

composition book.

#### \_\_\_\_| Activity

Most of the time math problems don't come in the format of numbers only. They come in the form of real-life problems that need to be answered. These problems are found in word problems. When students read the problems they must ask themselves what they are trying to find out. They then create a number sentence that represents the words. For example:

**Word Problems** 

- 1. Joe has 8 cookies. Mark has 5 cookies. How many cookies do they have in all?
- 2 8 cookies + 5 cookies = 13 cookies in all

The first is the problem, the second the number sentence representing the problem.

Sometimes you are given a number sentence and then are asking to create the story that goes along with the sentence.

Work through several examples with students, going from number sentence to story, and

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



story to number sentence.

#### **Word Problems**

#### **Directions:**

- 1. Divide students into pairs.
- 2. Give each pair a Word Problem card and white board.
- 3. Working together, students create number sentences from the word problems, and word problems from the number sentences.
- 4. When pairs are finished, pair shares with another pair to see what each group has done.
- 5. Bring group together and have children share several of the stories they have developed to explain the number sentence.

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#### Review

#### Say:

- Please recap what we did today.
- Did we achieve our objectives?

#### **Debrief**

What did you like about what we did today in math?

What would you like to do more of the next time we do math?

Give an example of how you will use what we did today in school tomorrow.

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.

# 1st Grade Word Problems

A green string is 8 inches long. A blue string is 4 inches long. If you put the strings together, how long will it be?	It's lunch time. There are 12 students sitting at the green table and 21 students at the purple table. How many students are there all together?	
You are in the library. There are 13 books on the top shelf and 25 books on the bottom shelf. How many books all together?	Lily had 38 cookies to take to school. She gave away 13 cookies before she got to school. How many cookies did she have when she got to school?	
There are 11 cats sitting on the step. 5 cats get up and walk away. How many cats are left sitting on the step?	Joe read 18 books. Robin read 11 books. How many books did they read together?	
8 + 7 = 15	9 + 12 = 21	
4 + 3 = 7	37 – 12 = 25	



Component	Math
Grade Level:	First Grade
Lesson Title:	In and Out Puzzles
Focus:	Operations

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Focus Student's Prior Knowledge

What is a pattern? When we work with "in and out' activities we are really working with a pattern. If the rule is +3, (that's the in) what will the out be if you start with 6, 7, 8, or 9. (9, 10, 11, 12). What about if you apply the rule to these numbers: 2, 4, 6, 8? (5, 7, 9, 11). What are other patterns that you have seen?

#### Content (the "Meat")

#### **Problem of the Day**

John has 8 red marbles. Fred has 9 blue marbles. Lori has 6 purple marbles. How many marbles are there in all?

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 3, 9, and 12. Have students write the entire Fact Family on the white board.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



$$3 + 9 = 12$$

$$9 + 3 = 12$$

$$12 - 3 = 9$$

$$12 - 9 = 3$$

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 3, 9, and 12.

#### **Math Vocabulary**

#### Concept for Today: in and out

**Description:** The concept "in and out" refers to the pattern that applies a rule to a series of numbers. The "in" refers to the rule that you will apply to each of the numbers listed. The "out" refers to the answer or the end result. Try this "in" + 2.

In	3	4	5
Out	5		

Have children review the Vocabulary notebook for the concept of "in and out".

**Vocabulary Notebook Sample:** 

New Word	My Desc	ription			
in and out	In	3	4	5	
	Out	5			
Personal Connection	Drawing				
Can you apply the in and out pattern?			in		

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

Vocabulary Notebooks can be made from ½ of a composition book.

# Activity Operations

#### In and Out Puzzles

We can find patterns in numbers. For example, if a "rule" is to add 2, there is a pattern to how numbers will progress.

For example if the rule is to add 2, look at the number in and determine the number out:

In	3	4	5
Out		6	

If the rule was add 2 and you only had the "out number", you would have to subtract the 2 so you could find the number you started with.

ln	3		
Out	5	6	7

Work through several examples of "in" and "out" puzzles. When students are comfortable the students will be ready to work on the activity alone.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



#### In and Out

#### **Directions:**

- 1. Divide students into pairs.
- 2. Give each pair an In and Out card and a white board or paper.
- 3. Working together, pair completes each of the In and Out puzzles.
- 4. When pair is finished, they should join another pair and compare the work that they did.

	Closing
	Review
Say:	
•	Please recap what we did today.
•	Did we achieve our objectives?
	Debrief
What c	lid you like about what we did today in math?
If you p	out 6 in and you already have 2, what will come out?

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.

# 1st Grade In and Out Puzzles

Rule: + 10		Rule: -8
In	Out	In Out
	35	25
50		10
60		95
Rule: +20		Rule: -10
In	Out	In Out
24		19
	30	59
60		29
L		
Rule: -15		Rule: +25
In	Out	In Out
19		50
	35	25
58		78
Rule: - 25		Rule: +20
In	Out	ln Out
25		20
	50	30
50		90
Rule: +5		Rule: +12
In	Out	ln Out
23		14
	35	36
	58	36

Ru	ام.	+7
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In	Out
14	
	42
	56

# Rule: -4

In	Out
12	
	20
	14

Rule: -12

In	Out
48	
	60
	12

Rule: +8

In	Out
20	
	48
16	

Rule: +7

ln	Out
15	
	42
29	

Rule: -3

In	Out
17	
37	
	70

Rule: + 11

In	Out
13	
42	
	91

Rule: -4

In	Out
	12
36	
87	

Rule: +15

In	Out
10	
	35
40	

Rule: - 6

In	Out
20	
68	
81	



Component	Math
Grade Level:	First Grade
Lesson Title:	In and Out
Focus:	Operations

Materials:

White boards

Activity at the end of the lesson plan

Crayolas

Socks (use as erasers)

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

What is a pattern? When we work with "in and out' activities we are really working with a pattern. If the rule is +3, (that's the in) what will the out be if you start with 6, 7, 8, or 9. (9, 10, 11, 12). What about if you apply the rule to these numbers: 2, 4, 6, 8? (5, 7, 9, 11). What are other patterns that you have seen?

#### Content (the "Meat")

#### **Problem of the Day**

There are 17 boys and 11 girls in Mrs. Jones' class. How many students are in the class all together? How many more boys than girls?

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the 5<sup>th</sup> day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 8, 11, and 19. Have students write the entire Fact Family on the white board.

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



$$8 + 11 = 19$$

$$11 + 8 = 19$$

$$19 - 11 = 8$$

Bring two students up to practice the conversation.

Try it again with several other pairs of students.

Then have children find a partner and practice the conversation. Do this at least 4 times.

Remember that today they are only doing the Fact Family of 8, 11, 19.

#### **Math Vocabulary**

#### Concept for Today: in and out

**Description:** The concept "in and out" refers to the pattern that applies a rule to a series of numbers. The "in" refers to the rule that you will apply to each of the numbers listed. The "out" refers to the answer or the end result. Try this "in" + 2.

In	3	4	5
Out	5		

Have children review the Vocabulary notebook for the concept of "in and out".

**Vocabulary Notebook Sample:** 

New Word	My Description				
in and out	In	3	4	5	
	Out	5			
Personal Connection	Drawing				
Can you apply the in and out pattern?			in		

It is important to review academic math vocabulary often throughout the day.

Complete the Vocabulary notebook for each word.

When possible, have students experience the word (Ex. 4 students creating a

Vocabulary Notebooks can be made from ½ of a composition book.

right angle, multiple students acting out an equation).

# Activity Operations

#### In and Out Puzzles

We can find patterns in numbers. For example, if a "rule" is to add 2, there is a pattern to how numbers will progress.

For example if the rule is to add 2, look at the number in and determine the number out:

In	3	4	5
Out		6	

If the rule was add 2 and you only had the "out number", you would have to subtract the 2 so you could find the number you started with.

In		3		
Ou	ıt	5	6	7

Work through several examples of "in" and "out" puzzles. When students are comfortable the students will be ready to work on the activity alone.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



#### In and Out

#### **Directions:**

- 1. Divide students into pairs.
- 2. Give each pair an In and Out card and a white board or paper.
- 3. Working together, pair completes each of the In and Out puzzles.
- 4. When pair is finished, they should join another pair and compare the work that they did.

	Closing	
	Review	
Say:		
Please recap what we did today.		
<ul> <li>Did we achieve our objectives?</li> </ul>		
	Debrief	
What did you like about what we did today in math?		
What do you know about a calendar?		
What are the names of the month?		
What are the names of the days of the week?		

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.

## 1st Grade In and Out Puzzles

Rule: + 1	0		Dulo	0		
Rule. + I	U		Rule:			
	In	Out		<u>In</u>	Out	
		35		25		
	50				10	
	60			95		
	- 00				_	
Rule: +20	0		Rule:	-10		
	In	Out		In	Out	
	24	Jul		19		
	<u> </u>	30		59		
	60	30			29	
	00				-	
Rule: -15	<u> </u>		Rule:	+25		
	In	Out		In	Out	
	19	Jul		50		
	10	35		25		
	58	33			78	
	30					
Rule: - 2	5		Rule:	+20		
	In	Out		In	Out	
	25			20		
		50		30		
	50				90	
	50				,	
Rule: +5			Rule:	+12		
	In	Out		In	Out	
	23			14		
		35		36		
		58			36	
		00				

		_
Ru	IG.	+7

In	Out
14	
	42
	56

# Rule: -4

In	Out
12	
	20
	14

In	Out
48	
	60
	12

Rule: +8

In	Out
20	
	48
16	

Rule: +7

ln	Out
15	
	42
29	

Rule: -3

In	Out
17	
37	
	70

Rule: + 11

In	Out
13	
42	
	91

Rule: -4

In	Out
	12
36	
87	

Rule: +15

In	Out
10	
	35
40	

Rule: - 6

•	
ln	Out
20	
68	
81	



Component	Math
Grade Level:	First Grade
Lesson Title:	Math Fun!
Focus:	Review

**Materials:** 

White boards

Materials for games played the past 10 days

Crayolas

Socks (use for erasers)

#### **Opening**

#### State the objective

Today we are going to learn some math vocabulary—words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

#### Gain prior knowledge by asking students the following questions

Ask children what they know about addition and subtraction. Ask them to share what they do to write number sentences? Ask them about story problems and how they connect to number sentences?

#### Content (the "Meat")

#### **Problem of the Day**

You want to go to your grandma's house. She lives 5 miles away. Would it be faster to ride your bike are walk? Explain your thinking.

#### **Fact Practice**

Fact Practice for 1st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways.

1 + 2 = 3

2 + 1 = 3

3 - 2 = 1

3 - 1 = 2

After they have written the problem in all 4 ways they will find a partner and say, "If 1 + 2 = 3, then 2 + 1 = 3".

The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the  $5^{th}$  day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.

**Today** you will introduce this activity and begin with the Fact Family of 2, 9 and 11. Have students write the entire Fact Family on the white board.

2 + 9 = 11

# \*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

Check in about what is happening and what they are thinking.

Take advantage of any teachable moments.

Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.



9 + 2 = 11 11 - 2 = 011-9=2 Bring two students up to practice the conversation. Try it again with several other pairs of students. Then have children find a partner and practice the conversation. Do this at least 4 times. Remember that today they are only doing the Fact Family of 2, 9, and 11. Activity Focus on having young Today is a review lesson. Students should choose from the following activities: people "compete" in pairs or small groups. Once a game Name Those Coins is mastered you can utilize it in the "When Homework Is **How Many Pieces?** Complete" center. **Gummy Bears Lucky Charms Word Problems** 

	Closing
	Review
Say:	
Please recap what we did today.	
<ul> <li>Did we achieve our objectives?</li> </ul>	
	Debrief
Which of the games did you enjoy playing the most?	
What about this game is fun for you?	

#### Reflection (Confirm, Tweak, Aha!)

In and Out

- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.