

Component	Math
Grade Level:	First Grade
Lesson Title:	Subtraction #1
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**

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

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 #2
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.

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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?

- 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 #1
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?	
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	0.00	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
	12				
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:	In and Out #2
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.

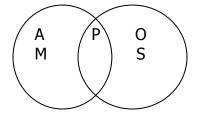
#### Gain prior knowledge by asking students the following questions

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 #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.

	Closing	
	Review	
Say:		
<ul> <li>Please recap what</li> </ul>	we did today.	
Did we achieve o	objectives?	
_	Debrief	
What did you like about w	at we did today in math?	
How can you use the info	nation 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 #2

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 #3
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 #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.

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 #3

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 #4
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

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

acting out an equation).

# 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 #4

#### **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.

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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?

- 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 #4

Rule: +6		Rule: +2		Rule: -7	
In	Out	In	Out	In	Out
10	0.00	10		10	
25		25		25	
50		50		50	
		L		L	
Rule: +10		Rule: +3		Rule: -8	
In	Out	In	Out	In	Out
10		30		30	
	25		25		25
50		46		46	
Rule: -7		Rule: -6		Rule: +2	
In	Out	In	Out	In	Out
16		14		54	
	83		58		86
48		21		42	
Rule: +4		Rule: +1		Rule: -8	
In	Out	In	Out	In	Out
63			19	42	
	30		36		29
	12	84			60
	12	L			
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 #1
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?		
How can you use the information from today during cla	ass tomorrow?	

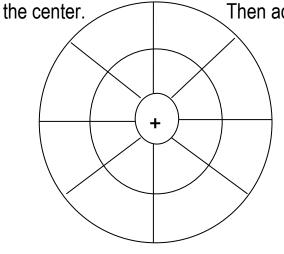
# Reflection (Confirm, Tweak, Aha!)

What is one key learning you had today in math?

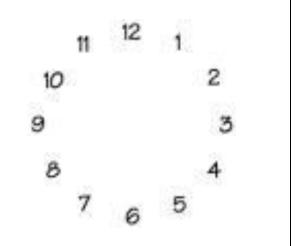
- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new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



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 #2
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

1. Divide students into pairs.

**Directions:** 

- 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
	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?	

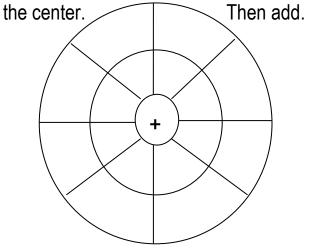
What would you like to do more of the next time we do math?

Give an example of how you will use what we did today in school tomorrow.

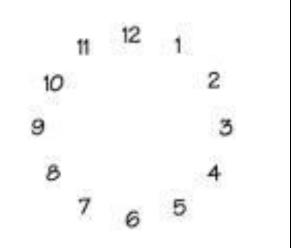
- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new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

# 1st Grade Puzzles #2

Write a number in the space closest to



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 #3
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 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 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.

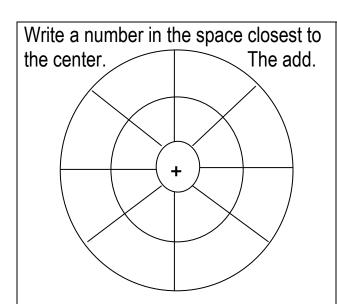
Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



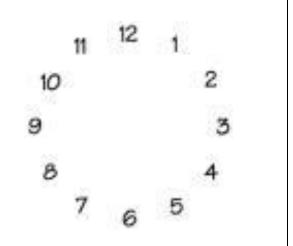
	Closing
	Review
Say:	
<ul><li>Please recap what we did today.</li><li>Did we achieve our objectives?</li></ul>	
	Debrief
What did you like about what we did today in math?	
What is a cube?	
How many sides does a cube have?	

- 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 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 #4
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.



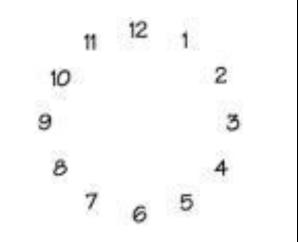
		Closing	
		Review	
Say:			
•	Please recap what we did today.		
•	Did we achieve our objectives?		
		Debrief	
What o	did you like about what we did today in math?		
What do you know about a calendar?			
What are the names of the month?			
What a	are the names of the days of the week?		

- 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 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:	Student Activity Choice
Focus:	Review

Materials:

White boards Materials for games played the past 10 days

Cravolas

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:

In or Out #1 In or Out #2 In or Out #3 Puzzles #1 Puzzles #2

Puzzles #3 Puzzles #4

Subtraction

20 - 10 = 10

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 a	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.