

Component	Math
Grade Level:	2 nd – 5 th Grades
Lesson Title: Fact Family	
Focus: Learning Each Math Lesson Segment	

Materials:

Dice

White boards, 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 for students to complete. The problems will vary and will be both review and in line with the lesson. Write the problem on chart paper. Let youth work the problem on a white board either alone or with a partner. Following is a sample problem:

If a pattern looks like this: ♥♥♥♥♥♥♥, what is next?

Math Facts

The Fact Practice activity will be different each day. During Group 1 Lessons the youth will be taught 10 different ways to practice math facts in fun and engaging ways. 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. In order for youth to practice effectively, you will need to teach each game following the protocol below.

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.

*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.



- 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.

Fact Practice

Fact Family

A Fact Family is 3 numbers which have a relationship in multiplication and division. For example, the numbers 9, 4, and 36 have a particular relationship in multiplication and division. This family has four members:

9 X 4 = 36

 $4 \times 9 = 36$

 $36 \div 4 = 9$

 $36 \div 9 = 4$

The numbers 9, 4 and 13 have a particular relationship in addition and subtraction.



9 + 4 = 13

4 + 9 = 13

13 - 4 = -

13 - 9 = 4

Students should roll 2 dice and create a Fact Family by writing the members of the family on the white board. Student should roll a total of 5 times, creating 5 Fact Families

Student Practice

General guidelines for students playing games follow

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?

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: odd

Description: Numbers that cannot be divided evenly by 2. Examples: 3, 5, 7, 9, 31, 33, 35

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

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,



sentence. In space 4 demonstrate your understanding of the word by drawing a picture of the word.

Vocabulary Notebook Sample:

New Word	My Description
odd	Numbers that are not even
Personal Connection	Drawing
Are these numbers odd or even?	3, 5, 7, and 9 are odd numbers

multiple students acting out an equation).

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

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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

Each day there will also be a mathematics activity that will occur in this space. This week we will not do an activity here since you are learning how to play each of the Math Fact Games. This activity can be added to the Homework Center.

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: 2 nd – 5 th Grades		
Lesson Title: Addition or Multiplication War		
Focus: Learning Each Math Lesson Segment		

Materials:

Cards, one deck for every 2 students

White boards, 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 for students to complete. The problems will vary and will be both review and in line with the lesson. Write the problem on chart paper. Let youth work the problem on a white board either alone or with a partner. Following is a sample problem:

If you have 19 chocolate chip cookies and 13 Oreos, how many cookies do you have altogether?

Math Facts

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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).

*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.



- 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.

Fact Practice

Addition War or Multiplication War

- 1. Divide students into pairs. Give each pair a deck of cards have them remove face cards and jokers and place in the box.
- 2. Shuffle the deck and divide the cards evenly between the two players.
- 3. On go, the players turn over the cards at the same time.
- 4. Students add (or multiply) the 2 numbers that have been turned up.
- 5. First person to give the answer either wins the cards because the answer is correct, or has to turn over 2 cards because he/she gave the wrong answer.



- 6. At the end of round, students may reshuffle the pile of cards that they have.
- 7. Play can continue until one player has all cards or time has called.

Student Practice

General guidelines for students playing games follow

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?

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: 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:

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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New Word math	My Description A term that is short for mathematics and is about numbers and patterns	It is important to review academic math vocabulary often throughout the day.
Personal Connection Math is one of my favorite subjects in school.	Drawing Math 2***********************************	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 Each day there will also be a mathematics activity that will occur in this space. This week we will not do an activity here since you are learning how to play each of the Math Fact Games. This activity can be added to the Homework Center.		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

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:	2 nd – 5 th Grades
Lesson Title:	Foreheader
Focus:	Learning Each Math Lesson Segment

Materials:

Cards, one deck for every 3 students

White boards, 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 for students to complete. The problems will vary and will be both review and in line with the lesson. Write the problem on chart paper. Let youth work the problem on a white board either alone or with a partner. Following is a sample problem:

If you have 32 marbles and you lose 12, how many marbles do you have left?

Math Facts

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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.

*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.



- 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.

Fact Practice

Foreheader

- 1. Divide students into trios. Give each trio a deck of cards without face cards and jokers.
- 2. Shuffle the deck and give all of the cards to the referee who will be "judging" the contest.
- 3. On go, players are each handed a card by the referee and **WITHOUT** looking, put the card face out on his/her forehead.
- **4.** The referee multiplies (or adds) the two numbers together and states the answer.



- **5.** Each player looks at the other person's exposed number and names his/her own number
- **6.** Person who wins (accuracy and time), collects both cards.
- 7. Play continues until all cards are gone.
- Players can repeat play (if there is another time) with each other so each has an opportunity to be both a player and referee.

Student Practice

General guidelines for students playing games follow

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?

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

Description: The word operation refers to a mathematical process. The four most common are addition, subtraction, multiplication, and division that are represented with these symbols: +, -, -, -, -, and +.

Complete the journal entry in your Vocabulary Notebook. In space 1, write the

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



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
operations	There 4 basic operations: addition, subtraction, multiplication and division
Personal Connection	Drawing
How many of the operations can you complete?	

out an equation).

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

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Activity

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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.

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:	e Level: $2^{nd} - 5^{th}$ Grades	
Lesson Title: Addition or Multiplication Ladder		
Focus: Learning Each Math Lesson Segment		

Materials:

Dice

White boards, paper and pencil

Opening

State the objective

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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 for students to complete. The problems will vary and will be both review and in line with the lesson. Write the problem on chart paper. Let youth work the problem on a white board either alone or with a partner. Following is a sample problem:

What do these symbols mean: < and >. Give an example.

Math Facts

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- Tell them how they will know that the game is over.

*Activity → Teachable Moment(s) throughout

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- 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.

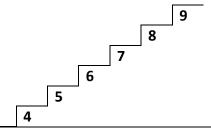
Step 3: Model

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- 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.

Fact Practice

Multiplication (or Addition) Ladder

- 1. Give each student a white board (include marker or crayola)
- 2. Student should draw a ladder like the one below





2

3. 3. Have student roll 2 dice, total the pips and then multiply (or add) that number times each of the numbers in the ladder, writing the total to the right of the number

Student Practice

General guidelines for students playing games follow

Step 4: Open Play

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- 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.
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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

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Complete the Vocabulary notebook for each word.
When possible, have students experience the word (Ex. 4 students creating a right angle,



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

multiple students acting out an equation).

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

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Complete the Vocabulary notebook for each word.

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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!)

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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:	2 nd – 5 th Grades
Lesson Title: Spokes on a Wheel	
Focus: Learning Each Math Lesson Segment	

Materials:

Dice

White boards, 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 for students to complete. The problems will vary and will be both review and in line with the lesson. Write the problem on chart paper. Let youth work the problem on a white board either alone or with a partner. Following is a sample problem:

If there are 5 rows and each row has 5 chairs in it, how many chairs are there?

Math Facts

The Fact Practice activity will be different each day. During Group 1 Lessons the youth will be taught 10 different ways to practice math facts in fun and engaging ways. 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. In order for youth to practice effectively, you will need to teach each game following the protocol below.

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.

*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.



- 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.

Fact Practice

Spokes on a Wheel

- 1. Divide students into pairs
- 2. On a white board, student draws a small circle with 9 spokes coming out of it (should look like a bicycle tire)
- 3. Have students choose to put a 6, 7 or 8 in the center circle
- 4. Student rolls two dice and adds the pips (dots)
- 5. Taking this total, student writes a math problem on one of the spokes (eg. 7 is in the circle and students rolls a 3 and 5 which totals 8. The spoke equation would look like $7 \times 8 = 56$ or 6 + 8 = 14)



Student Practice

General guidelines for students playing games follow

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?
 - What about the game was enjoyable? What makes you say that?
 - o How would you have taught the game differently?

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	

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

Complete the Vocabulary

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



addition	Combining the values of two or more things into a whole	academic math vocabulary often throughout the day.
Personal Connection Do you know how to do addition problems?	Drawing 7 + 3 = 10	Complete the Vocabulary notebook for each word. When possible, have students experience the
p. co		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	Focus on having young people "compete" in pairs or small groups. Once a
1	tics activity that will occur in this space. This nce you are learning how to play each of the added to the Homework Center.	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:	2 nd – 5 th Grades
	Spot and Dots
Focus:	Learning Each Math Lesson Segment

Materials:

Cards, one deck for every 2 students

White boards, 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 for students to complete. The problems will vary and will be both review and in line with the lesson. Write the problem on chart paper. Let youth work the problem on a white board either alone or with a partner. Following is a sample problem:

If you have 11 rows and each row has 6 chairs in it, how many chairs do you have in all?

Math Facts

The Fact Practice activity will be different each day. During Group 1 Lessons the youth will be taught 10 different ways to practice math facts in fun and engaging ways. 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. In order for youth to practice effectively, you will need to teach each game following the protocol below.

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).

*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.



- 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.

Fact Practice

Fact Practice - Spots and Dots

There is a master of Double 9 Dominos attached to this lesson plan. You will need 1 full set for each pair of students in your class. It is recommended that you duplicate on card stock and if possible, laminate for use again in the future.

- 1. Players sit across from each other.
- 2. Dominoes are between them, face (or spots) down.
- 3. Each student draws a domino and writes the multiplication (or addition) problem on their white board, multiplying (or adding) the numbers represented by the spots



Example: Domino drawn is

••

Multiplication: $2 \times 3 = 6$ Addition: 2 + 3 = 5

Student Practice

General guidelines for students playing games follow

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?

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: pentagon

Description: A flat-5 side figure. It looks a little like a house.

Complete the journal entry in your Vocabulary Notebook. In space 1, write the

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. 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
	pentagon	A 5 sided figure that is flat
Ī	Personal Connection	Drawing
	The Pentagon is a 5-sided building.	

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).

Vocabulary Notebooks

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

Activity

Each day there will also be a mathematics activity that will occur in this space. This week we will not do an activity here since you are learning how to play each of the Math Fact Games. This activity can be added to the Homework Center.

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.



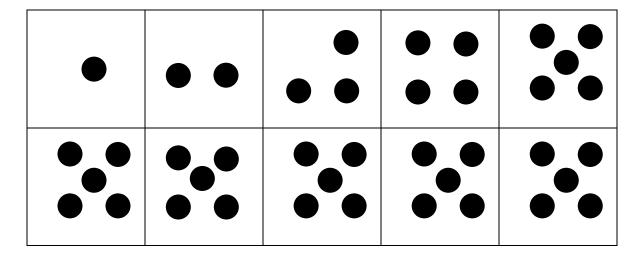
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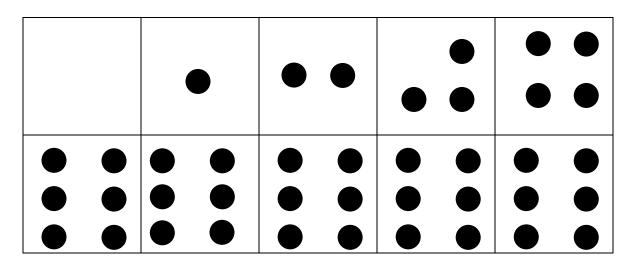
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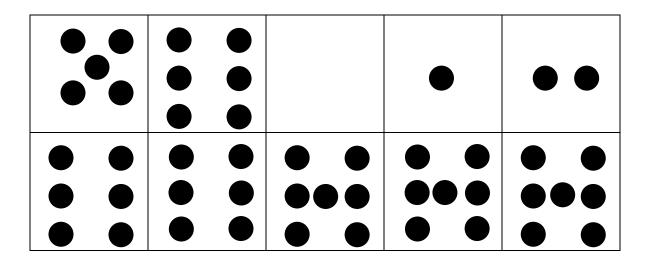
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Component	Math
Grade Level:	2 nd – 5 th Grades
Lesson Title:	Draw
Focus:	Learning Each Math Lesson Segment

Materials:

Cards, one deck for every 2 students

White boards, 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 for students to complete. The problems will vary and will be both review and in line with the lesson. Write the problem on chart paper. Let youth work the problem on a white board either alone or with a partner. Following is a sample problem:

Joe has 8 coins. Judy has 9 coins. How many coins do they have together?

Math Facts

The Fact Practice activity will be different each day. During Group 1 Lessons the youth will be taught 10 different ways to practice math facts in fun and engaging ways. 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. In order for youth to practice effectively, you will need to teach each game following the protocol below.

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.

*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.



- 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.

Fact Practice

Draw!

- 1. Divide students into pairs and give each pair a deck of cards.
- 2. Remove the face cards and jokers from the deck of cards.
- 3. Shuffle the deck.
- 4. Decide who will go first.
- 5. First player draws two cards.
- 6. Student multiplies (adds) the cards.
- 7. Student writes his/her problem on the white board, writing a complete



number sentence.

8. Students take turns drawing and creating problems.

Student Practice

General guidelines for students playing games follow

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?

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 circle is a 2-dimensional shape made by drawing a curve that is always the same distance from the center. A circle is round. 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:

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



Γ	New Word	My Description	composition book.
	circle	A closed figure that is made with a single arching line	It is important to review academic math vocabulary often throughout the day.
	Personal Connection	Drawing	Complete the Vocabulary notebook for each word.
	That clock is a circle.		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.
	Acti	Focus on having young people "compete" in pairs	
	Each day there will also be a mathematics week we will not do an activity here since Math Fact Games. This activity can be add	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:	2 nd – 5 th Grades
Lesson Title:	Target
Focus:	Learning Each Math Lesson Segment

Materials:

Cards, one deck for every 2 students

White boards, 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 for students to complete. The problems will vary and will be both review and in line with the lesson. Write the problem on chart paper. Let youth work the problem on a white board either alone or with a partner. Following is a sample problem:

How much money do you have if you have 3 dimes, 4 nickels, 8 pennies, and one quarter?

Math Facts

The Fact Practice activity will be different each day. During Group 1 Lessons the youth will be taught 10 different ways to practice math facts in fun and engaging ways. 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. In order for youth to practice effectively, you will need to teach each game following the protocol below.

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).

*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.



- 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.
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- 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.

Fact Practice

Target

- 1. Divide students into trios.
- 2. Each trio needs a deck of cards without face cards and jokers.
- 3. Place the cards face up in a TicTac Toe Grid.
- 4. Turn up a 10th card which will be to the side and becomes the target number (aces count as 1).
- 5. Each player makes an equation with some or all of the numbers in the grid to equal the target number. Students may add, subtract, multiply or divide.
- 6. Each card may be used only one time in the equation.



- 7. As the cards are being picked up, the player must say the equation aloud—for example if the target card is 10, then I could say $5 \times 2 = 10$, and pick up the 5 and the 2.
- 8. After one player finishes his/her turn, then the cards taken are replaced by cards from the remaining deck.
- 9. Player with the most cards at the end of the game win.

Student Practice

General guidelines for students playing games follow

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?

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 shape that has three sides and three angles.

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

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



picture of the word.		out an equation).			
Vocabulary Notebook Sample:		Vocabulary Notebooks can be made from ½ of a			
New Word	My Description	composition book.			
triangle	A three-sided flat shape	It is important to review academic math vocabulary often			
Personal Connection	Drawing	throughout the day.			
Have you seen a triangle?		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.			
A	ctivity	Focus on having young			
		people "compete" in pairs			
Each day there will also be a mathemat	or small groups. Once a game is mastered you can				
	veek we will not do an activity here since you are learning how to play each of the				
Math Fact Games. This activity can be a	added to the Homework Center.	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:	2 nd – 5 th Grades
Lesson Title:	Number Hunt or Product Hunt
Focus:	Learning Each Math Lesson Segment

Materials:

12-sided dice (1 pair for every 2 students)

White boards, 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 for students to complete. The problems will vary and will be both review and in line with the lesson. Write the problem on chart paper. Let youth work the problem on a white board either alone or with a partner. Following is a sample problem:

Think of the following shapes: \triangle \bigcirc

Organize them in some way and then share that organization with a partner.

Math Facts

The Fact Practice activity will be different each day. During Group 1 Lessons the youth will be taught 10 different ways to practice math facts in fun and engaging ways. 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. In order for youth to practice effectively, you will need to teach each game following the protocol below.

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).

*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.



- 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.

Fact Practice

Number Hunt (Grades 2-3—Game Board Attached)

- 1. Divide students into pairs.
- 2. Each pair needs a Number Hunt sheet (attached to this lesson plans).
- 3. Player rolls two, 12-sided dice.
- 4. Player adds or subtracts the two numbers.
- 5. If the number is not yet covered, then player may cover the number.
- **6.** Next player repeats steps 1-3.
- **7.** Winner is determined by who has the most numbers covered.



Product Hunt (Grades 3-5—Game Board Attached)

- 1. Divide students into pairs.
- 2. Each pair needs a Product Hunt sheet (attached to this lesson plans).
- 3. Player rolls two, 12-sided dice.
- 4. Player multiplies the two numbers.
- 5. If the product is not yet covered, then player may cover the product.
- 6. Next player repeats steps 1-3.
- 7. Winner is determined by who has the most numbers covered.

Student Practice

General guidelines for students playing games follow

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?

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.

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



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 shape with 4 equal sides and 4 equal right angles				
Personal Connection	Drawing				
That clock is in the shape of a square.					

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).

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

Activity

Each day there will also be a mathematics activity that will occur in this space. This week we will not do an activity here since you are learning how to play each of the Math Fact Games. This activity can be added to the Homework Center.

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.



Product Hunt

48	20	81	3	45	27	
1	24	108	77	7	40	
120	72	96	6 8		60	
14	144	70	22	15	11	
33	33 35 66		132	63	16	
12	30 28		110 100		49	
6	36	21	121	90	2	
84	5	44	25	99	10	
32	9 56		88 4		11	
24	50	55	54	42	80	



Number Hunt

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

Number Hunt

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



Component	Math
Grade Level:	2 nd – 5 th Grades
Lesson Title:	Bump It Up and Add A Zero
Focus:	Learning Each Math Lesson Segment

Materials:

Dice, cards, game boards

White boards, 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 for students to complete. The problems will vary and will be both review and in line with the lesson. Write the problem on chart paper. Let youth work the problem on a white board either alone or with a partner. Following is a sample problem:

I have \$1.00. I spend \$.68. How much do I have left?

Math Facts

The Fact Practice activity will be different each day. During Group 1 Lessons the youth will be taught 10 different ways to practice math facts in fun and engaging ways. 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. In order for youth to practice effectively, you will need to teach each game following the protocol below.

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.

*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.



- 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.

Fact Practice

Bump It Up! Add A Zero

- 1. Divide students into pairs
- 2. Give each pair a white board and a deck of cards (ask them to remove face cards, jokers, and 10s and return to the box)
- 3. The object of this fact practice is to sum numbers until you reach 1,000.
- 4. Student draws 2 cards, adds the value of the cards together, multiplies by ten and writes the total on the sheet.
- 5. It is not the other person's turn to do the same
- 6. When play returns to the first player, the process is repeated, although this



time, the totals are added together.

7. First person to 1,000 wins.

Example: Player draws a 7 and a 4. Total is 11. Multiply by 10 (add the zero) equals 110. Next turn, player draws a 3 and a 2 which totals 5. Multiply by 10 and I now add 50 to 110 for a total of 160.

Multiples

Multiplication facts are learned by recognizing the multiples of any given number. In this practice, you will be determining the multiples of randomly generated numbers. You will need a chart and crayolas (150 chart).

- 1. Roll one or two dice (if you roll two add the numbers together to determine the factor in the fact practice)
- 2. Mark all multiples of the number and then pass off to the next person.

Players may mark the same number.

Student Practice

General guidelines for students playing games follow

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?

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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: even

Description: Numbers that can be divided evenly by 2. Examples: 2, 8, 14, 22, 48, and 100.

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
even	Numbers that are not odd
Personal Connection	Drawing
Are these numbers odd or even?	322, 46, 52, and 98 are even numbers

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).

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

Activity

Each day there will also be a mathematics activity that will occur in this space. This week we will not do an activity here since you are learning how to play each of the Math Fact Games. This activity can be added to the Homework Center.

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.

CONSULT

Consult 4 Kids Lesson Plans

Fact Practice—Multiples

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
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150



Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	Writing Number Sentences
Focus:	Math

Materials:

White boards Vocabulary Notebooks

Crayolas Copies of activities at end of Lesson Plan Socks Deck of cards, no 10s, face cards, or jokers

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")

Problem of the Day

Below is a bar graph showing the students' favorite food. Write a number sentence that will show the total number of students in the classroom.

Pizza					
Hamburgers					
Hot Dogs					
	2	4	6	8	10

$$8 + 4 + 7 = 19$$

Fact Practice Bump It Up! Add A Zero

- 1. Divide students into pairs
- 2. Give each pair a white board and a deck of cards (without face cards, jokers, or 10s)
- 3. The object of this fact practice is to sum numbers until you reach 1,000.
- 4. Student draws 2 cards, adds the value of the cards together, multiplies by ten and writes the total on the sheet.
- 5. It is not the other person's turn to do the same
- 6. When play returns to the first player, the process is repeated, although this time, the totals are added together.
- 7. First person to 1,000 wins.
- 8. Example: Player draws a 7 and a 4. Total is 11. Multiply by 10 (add the zero) equals

*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



110. Next turn, player draws a 3 and a 2 which totals 5. Multiply by 10 and I now add 50 to 110 for a total of 160.

Math Vocabulary

Word for Today: number sentence

Description: A number sentence is an equation that indicates both the quantity (represented in the numerals) and the operation $(+ - X \div)$ that is to be applied to those numbers. Example: 5 + 3 = 8 and 8 - 5 = 3 are two number sentences using the same 3 numerals.

Review the entry from yesterday. Have students discuss in pairs and determine if they want to make any changes in the Vocabulary Notebook entry.

Vocabulary Notebook Sample:

New Word	My Description
Number sentence	A math problem that is written in equation form
Personal Connection	Drawing
Please write a number sentence to how 5 - 2 cookies.	5-3-2

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

Activity Writing Number Sentences

Writing number sentences is essential to solving problems correctly. Write the correct number sentence for each problem, and then mark the correct answer. Explain the ÷ sign.

Problem: Each hour a dolphin swims 5 miles. How many hours does it take for the dolphin to swim 20 miles? (4 hours) $20 \div 5 = 4$ hours

A. 15

B. 25

C. 3

D. 4

Problem: Each mother seagull has 3 baby chicks. There are 18 chicks in all. How many mother seagulls are there? (6 mother seagulls)

18 ÷ 3 = 6 mother seagulls

F. 5 G.

G. 21 H. 6 J. 15

Problem: Lorna had 16 dolls. She gave an equal number of dolls to 4 friends. How many dolls did each friend get? (4 dolls)

 $16 \div 4 = 4 \text{ dolls}$

A. 3

B. 4

C. 12

D. 20

Problem: Paul makes a pile of 26 cards. Then he gives 7 of them to his sister. How many cards does he have left? (19 cards)

19-7 = 19 cards

F. 5 *G*. 21

21 H. 6 J

Problem: You have 15 spools of thread. How many groups of 3 spools can you make? (5 groups)

 $15 \div 3 = 5$ groups

A. 3

B. 4

C. 6

D. 5

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?

- 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:	3 rd Grade
Lesson Title:	Equation Writer
Focus:	Math vocabulary, subtraction, addition

Materials:

White boards Vocabulary Notebooks

Crayolas Cards

Socks

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Con	tent ((the	"Me	eat"

Problem of the Day

Look at the subtraction problem written below. To do this problem correctly, will you need to regroup? Explain your answer.

326

-194

Fact Practice

Target

- 1. Divide students into trios
- 2. Each trio needs a deck of cards without face cards and jokers
- 3. Place the cards face up in a TicTac Toe Grid
- 4. Turn up a 10th card which will be to the side and becomes the target number (aces count as 1)
- 5. Each player makes an equation with some or all of the numbers in the grid to equal the target number. Students may add or subtract.
- 6. Each card may be used only one time in the equation
- 7. As the cards are being picked up, the player must say the equation aloud—for

*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.



example if the target card is 10, then I could say 6 + 4 = 10, and pick up the 6 and the

- 8. After one player finishes his/her turn, then the cards taken are replaced by cards from the remaining deck
- 9. Player with the most cards at the end of the game wins.

Math Vocabulary

Word for Today: equation

Description: An equation is a number sentence that has numerals and operations that are equal on both side of the = sign. Ex.: 4 + 2 = 6 is a simple equation.

Students should complete the Vocabulary Notebook

Vocabulary Notebook Sample:

New Word	My Description
equation	A number sentence to show a math problem
Personal Connection	Drawing
Write the number sentence for that problem.	231 + 487 = 718

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 Equation Writer

Explain to students that they are going to have an opportunity to write 4 equations—two each for addition and subtraction.

Demonstrate how students will use cards to randomly demonstrate numbers. Deal yourself 8 cards. (Decks will not have 10s, face cards, or jokers) You may use all or some of the cards. For example, if I draw a 7, 3, 2, 2, 1, 6, 8, 9, I could make the problem 732 + 126 = 858, or I could subtract saying 732 - 126 = 606; or 621 + 798 = 1,419 or 395 - 221 = 174.

Player can only make 1 equation with each draw of the cards.

At the end of the play, the answers from all 4 equations will be totaled together, and the winner is the player with the highest total.

- 1. Divide students into pairs
- 2. Give each pair a deck of cards (10s, face cards, and jokers removed) and have them create the equations together and find the total of the answers
- 3. When all have finished, compare the grand totals for each team

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?

- 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:	3 rd Grade
Lesson Title:	Exactly 100
Focus:	Math vocabulary, basic operations, patterns

Materials:

White boards Vocabulary Notebooks

Crayolas dice (6-sided and 12-sided for each pair)

Socks

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")	
Problem of the Day Study the shapes and determine what the pattern is. Copy the pattern and complete the	*Activity → Teachable Moment(s) throughout
pattern by adding the next 5 shapes, replacing the question marks.	During the lesson check in with students repeatedly.
☼ ╦ ╦ \$?????	Check in about what is happening and what they are thinking.
Fact Practice Fact Family	Take advantage of any teachable moments.
A Fact Family is 3 numbers which have a relationship in addition and subtraction. For example, the number 9, 4, and 13 have a particular relationship in math. This family has four members: $9 + 4 = 13$ $4 + 9 = 13$ $13 - 9 = 4$	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.
13 – 4 = 9 Students should roll 2 dice and create a Fact Family by writing the members of the family on the white board. Student should roll a total of 5 times, creating 5 Fact Families	When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.
Math Vocabulary Word for Today: number sentence	It is important to review academic math vocabulary often throughout the day.



Description: A number sentence is an equation that indicates both the quantity (represented in the numerals) and the operation $(+ - X \div)$ that is to be applied to those numbers. Example: 5 + 3 = 8 and 8 - 5 = 3 are two number sentences using the same 3 numerals.

Have students share the Vocabulary Notebooks in pairs, discussing the word, making any additions or changes.

Vocabulary Notebook Sample:

New Word	My Description
Number sentence	A number sentence is how you write a problem
Personal Connection	Drawing
The number sentence is 5 + 6 = 11.	4+5=9

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 Exactly 100

Demonstrate:

On the white board, draw 3 columns. Label the first >100, the center one 100, and the last one < 100

Show students 2 12-sided dice and 2 6-sided dice.

Explain that you will roll the 4 dice one time. Then ask students to help you create three number sentences. One that equals less than 100, one that equals more than 100, and if possible, one that equals 100 exactly. Example:

Player rolls a 5, 5, 1, and 4

1 [5 (5 x 4)]

 $(5 \times 1) + (5 - 4) + 6$

5(5x4)+1=101

Playing the game

- 1. Divide students into pairs
- 2. Give each pair two-12-sided dice and two 6-sided dice.
- 3. Player #1 rolls all four dice.
- 4. Player tries to make an equation, using addition, subtraction, multiplication, and/or division, which will fit in each of the columns above, using the same numbers.
- 5. Player scores one point for >, one point for <, and 3 points for exactly 100.
- 6. Highest score wins

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?

- 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:	3 rd Grade
Lesson Title:	Expanded Notation
Focus:	Math vocabulary, basic operations, number notations

Materials:

White boards

Vocabulary Notebooks

Crayolas

cards

Socks

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Con	tent ((the	"M	eat"

Problem of the Day

Sometimes we read story problems that must be solved by the creation of a number sentence. Today we are going to write a story problem that the following number sentence represents.

13 + 9 =

Fact Practice

Draw!

- 1. Divide students into pairs and give each pair a deck of cards
- 2. Remove the face cards and jokers from the deck of cards.
- 3. Shuffle the deck.
- 4. Decide who will go first.
- 5. First player draws two cards.
- 6. Student adds or subtracts the cards.
- 7. Student writes his/her problem on the white board, writing a complete number sentence.
- 8. Students take turns drawing cards and creating problems.

*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.



Math Vocabulary

Word for Today: expanded notation

Description: Expanded notation is a way to write a number that represents each numeric value of the place the numeral is in. Example: 7,324 in expanded notation is 7000 + 300 + 20 + 4. In expanded notation, the numerals to the right of the number are represented by 0 which holds the place of the other numbers.

Have students complete his/her Vocabulary Notebook.

Vocabulary Notebook Sample:

New Word	My Description
Expanded notation	Stretching a number out so you can see its parts
Personal Connection	Drawing
The assignment was to write the numbers in expanded notation.	400 + 20 + 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 S-T-R-E-T-C-H It Out!

Demonstrate: Numbers can be written in expanded notation. This is helpful for students when they are learning about place value. Sometimes the numeral 4 is much more than simply $\odot \odot \odot = 4$. In the number 41, the 4's value is 40, in 411, the 4's value is 400, and so on. Today we are going to write numbers in expanded notation.

Model: 5,368 = 5,000 + 300 + 60 + 8

- 1. Divide students into pairs, giving each pair 4 6-sided dice (9 sided would be perfect if you have them)
- 2. Student rolls a number and decided how to arrange the die so the number can be read. For example, if the roll is 4, 3, 6, and 7, the number could be 4,367 or any other arrangement of those numbers.
- 3. Students write the number and then write the number in expanded notation. 4,367 would become 4,000 + 300 + 60 + 7 = 4,367
- 4. Pair should roll 10 different numbers, writing the number in both the standard and expanded notation formats.
- 5. Pairs then select one number to share with the group in both formats.

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?

- 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:	3 rd Grade
Lesson Title:	Expand and Contract
Focus:	Math vocabulary, basic operations, number notations

Materials:

White boards Vocabulary Notebooks
Crayolas Double 9 Dominoes
Socks four 6-sided dice per pair

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")

Problem of the Day

With the digits at the bottom of this problem, write three numbers, the largest, the smallest, and one in the middle. When you have completed this, write the numbers in expanded notation. What are all of the possible values of 8? (8,000, 800, 80, and 8)

6 3 1 8

Fact Practice

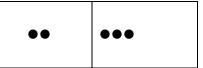
Spots and Dots

There is a master of Double 9 Dominos attached to this lesson plan. You will need 1 full set for each pair of students in your class. It is recommended that you duplicate on card stock and if possible, laminate for use again in the future.

Players sit across from each other.

Dominoes are between them, face (or spots) down.

Each student draws a domino and writes the addition problem on their white board, adding the numbers represented by the spots Example: Domino drawn is



Addition: 2 + 3 = 5

*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.



Math Vocabulary

Word for Today: expanded notation

Description: Expanded notation is a way to write a number that represents each numeric value of the place the numeral is in. Example: 7,324 in expanded notation is 7000 + 300 + 20 + 4. In expanded notation, the numerals to the right of the number are represented by 0 which holds the place of the other numbers.

Have students share the Vocabulary Notebooks in pairs, discussing the word, making any additions or changes.

Vocabulary Notebook Sample:

New Word	My Description	
Expanded notation	Writing numbers so you can see hundreds, tens, and ones separated	
Personal Connection	Drawing	
Can you write 649 in expanded notation?	600 + 40 + 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 Expand and Contract

Demonstrate: Write the following numbers on the board.

6,731, (4,000 + 900 + 30 + 1), 8,017 and (5,000 + 000 + 40 + 9)

Ask students to expand the numbers that are not in expanded notation already, and contract the numbers that are already in expanded notation.

Write each number in **BOTH** formats as students provide the answers

- 1. Divide students into pairs
- 2. Give each pair a deck of cards with the 10s, face cards and jokers removed
- 3. Ask students to draw four cards, arrange the numerals to form a 4-digit number and then to write that number in both the standard and expanded notation format
- 4. Students should create 10 numbers
- 5. Invite pairs of students to share the numbers they generated with a pair of peers

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?

- 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

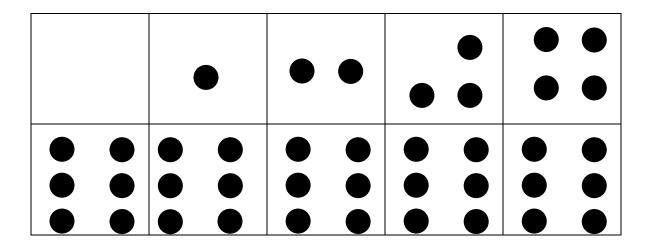
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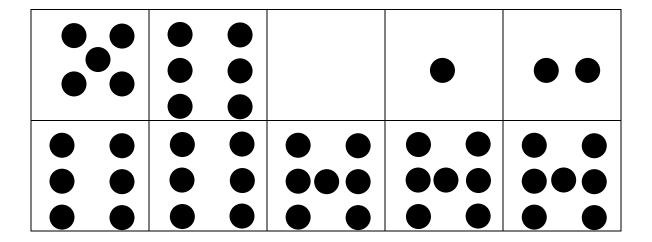
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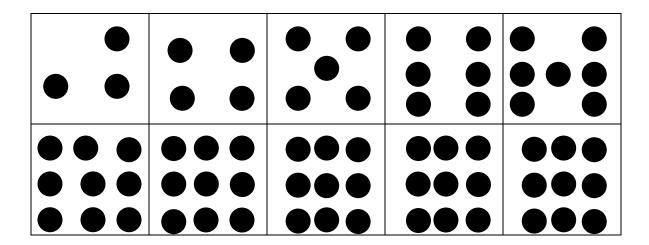
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Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	Rolling to 0
Focus:	Math vocabulary, basic operations

Materials:

White boards Vocabulary Notebooks

Crayolas six, 6-sided dice for each pair Socks Number Hunt Work Sheet

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (tl	he "Meat"
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Problem of the Day

In 3rd grade it is important that you have your addition facts memorized. How will having your addition facts memorized help you with the following subtraction problem? Explain your answer.

17 - 9 =

Fact Practice

Number Hunt

- 1. Divide students into pairs
- 2. Each pair needs a Number Hunt sheet (attached to this lesson plans)
- 3. Player rolls two, 12-sided dice.
- 4. Player adds or subtracts the two numbers.
- 5. If the number is not yet covered, then player may cover the number.
- 6. Next player repeats steps 1-3.
- 7. Winner is determined by who has the most numbers covered.

*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.



Math Vocabulary

Word for Today: equation

Description: An equation is a number sentence that has numerals and operations that are equal on both side of the = sign. Ex.: 4 + 2 = 6 is a simple equation.

Have students share the Vocabulary Notebooks in pairs, discussing the word, making any additions or changes.

Students should review the entry on the word equation from yesterday and determine if they need to make and additions or changes.

Vocabulary Notebook Sample:

New Word	My Description
equation	A number sentence that show how two things are equal in value
Personal Connection	Drawing
Write the equation carefully to show the accurate comparison.	6+9=15

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 Rolling to 0

Demonstrate: Roll 6 dice. Write an equation using **ALL** of the dice (using them only one time each). Example: Roll is 5, 6, 3, 5, 1, 1 I could add them all together 5 + 6 + 3 + 5 + 1 + 1 = 21 or I could add the first five numbers and subtract the 1 for 20. The object of the game is to eliminate all of the numbers from 1 - 36.

- 1. Each player or group of players is given six 6-sided dice; (you can add 12 sided dice to stretch player's skills)
- 2. Player rolls all the dice.
- 3. Player works with the numbers rolled to get as many answers as possible. A second roll of the dice will cause a penalty of 3 points.
- 4. Equations should be recorded on paper or white board next to the answer (the number between 1 and 36.
- 5. Team with the most numbers removed from the grid *(1 point per number, minus any penalty) wins.

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?

- 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.



Number Hunt

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

Number Hunt

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



Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	Grids and War
Focus:	Area, Math vocabulary, and addition

Materials:

White boards Decks of cards 2 dice for each pair of students

Crayolas Vocabulary Notebooks

Socks Graph paper (1/4 " squares)

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")

Problem of the Day

Johnny has 31 baseball cards. His friend Jorge has 13 fewer cards than Johnny. How many cards does Johnny have? How do you know?

What numbers are important in this problem? What words are important in this problem? How do you know?

Fact Practice

Addition War

- Divide students into pairs. Give each pair a deck of cards without face cards and jokers.
- Shuffle the deck and divide the cards evenly between the two players
- On go, the players turn over the cards at the same time
- Students add the 2 numbers that have been turned up
- First person to give the answer either wins the cards because the answer is correct, or has to turn over 2 cards because he/she gave the wrong answer
- At the end of round, students may reshuffle the pile of cards that they have

*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.



•	Play can continue	e until one pla	yer has all	cards or time	has called
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Math Vocabulary

Word for Today: area

Description: In a figure defined by boundaries, the space inside those boundaries is considered the area. Can be measured in square feet, square inches, square miles or other means

Vocabulary Notebook Sample:

New Word	My Description
area	Measure of the space inside of boundaries
Personal Connection	Drawing
The area of the front room is 30 square feet.	1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 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

Demonstrate "Grid Areas" for the students using 1" squared chart paper. Follow the direction for the activity below. Go through the steps carefully, asking for volunteers to come up demonstrate the activity. Ask if there are questions. Have students begin the activity.

Grid Areas

- 1. Divide students into pairs
- 2. Give each pair 1 sheet of 1/4" grid paper and 2 dice
- 3. The object of the game is to fill in as many squares on the paper as possible
- 4. Player 1 rolls the dice (ex. 2 and 6)
- 5. Student is to draw lines around the grid square that indicate 2 rows or columns by 6 rows or columns as well.
- 6. Inside the lines, student would write 12 square ¼ inches
- 7. After Player 1 is finished, Player 2 takes his/her turn
- 8. Player 2 may create his/her shape by sharing an edge with the figure drawn by Player 1, or may create a completely independent figure somewhere else on the paper
- 9. At the end of the game, students count the number of ¼ "squares that are not marked off.

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" player getting ready to play this game so he/she could get all the blocks are completed.

- 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:	3 rd Grade
Lesson Title:	Perimeters of Classroom Items
Focus:	Math vocabulary, addition, perimeter, and measurement

Materials:

White boards Vocabulary Notebooks

Crayolas Paper clips
Socks ¼ " graph paper

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")

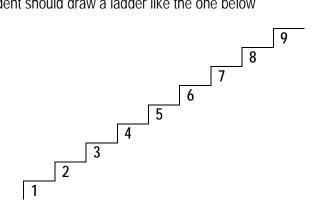
Problem of the Day

Maria and Juana have been saving money in piggy banks. Maria has 5 quarters, 7 dimes, 3 nickels and 9 pennies. Juana has 6 quarters, 3 dimes, 4 nickels, and 5 pennies. Which girl has the most money? How much more? How do you know you are correct?

Fact Practice

Addition Ladder

- 1. Give each student a white board (include marker or crayola)
- 2. Student should draw a ladder like the one below



*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. Have student roll 2 dice, total the pips and then add that number to each of the numbers in the ladder, writing the sum to the right of the number

Math Vocabulary

Word for Today: perimeter

Description: A perimeter is the distance around an object other than a circle. To know what a perimeter is, you can put a mark where you start and then work your way around, counting the measuring unit.

Students review the entry made into the Vocabulary Notebook with a partner, making any changes or additions that are necessary

Vocabulary Notebook Sample:

nd a shape or a place
-
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

Perimeters of Classroom Items

Remind students of the activity that they did yesterday to measure the perimeter of the shape that they rolled. Encourage students to discuss the process and the key learnings.

Explain that today you are going to do something similar using strings of paper clips to do the measuring and then recording the number of paper clips used on the graph paper.

Demonstrate: Using a string of paper clips, measure a piece of paper. Count the number of clips it takes to go completely around the paper. Remember that there are clips on either end of both sides. County the clips across the top and draw that on the piece of 1" square chart paper—1 square for each paper clip. Draw the first side, bottom, and the second side in the same way. Now count the number of squares and compare to the number of paper clips. It should be the same. Then write the perimeter in a number sentence. Example: 5 + 8 + 5 + 8 = 26 paper clips or 26 squares. Tell students that they will work in pairs and need to measure the perimeter of 3-4 items in the classroom with paper clips and then draw the item on the grid paper, writing the number sentence underneath the drawing..

- 1. Divide students into pairs
- 2. Give each pair 1 sheet of 1/4" grid paper and a string of paper clips
- 3. Students measure 3-4 items, drawing the item, writing a number sentence and labeling the perimeter for each item measured.

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?

- 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:	3 rd Grade
Lesson Title:	Roll A Rectangle Perimeter
Focus:	Math vocabulary and perimeter

Materials:

White boards Vocabulary Notebooks

Crayolas Dice

Socks ¼ " graph paper

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")

Problem of the Day

You are going on a field trip with your class. The rules are that every student must have a partner. Three classes are going on the trip. Class A has 24 students. Class B has 29. Class C has 28. Will each student have a partner? Explain your answer. How do you know that this is correct?

Fact Practice

Spokes on a Wheel

- 1. Divide students into pairs
- 2. On a white board, student draws a small circle with 9 spokes coming out of it (should look like a bicycle tire)
- 3. Have students choose to put a 6, 7 or 8 in the center circle
- 4. Student rolls two dice and adds the pips (dots)
- 5. Taking this total, student writes a math problem on one of the spokes (eg. 7 is in the circle and students rolls a 3 and 5 which totals 8. The spoke equation would look like 7 + 8 = 15
- **6**. Process continues until all spokes have an equation

*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.



Math Vocabulary

Word for Today: perimeter

Description: A perimeter is the distance around an object other than a circle. To know what a perimeter is, you can put a mark where you start and then work your way around, counting the measuring unit.

Students complete the Vocabulary Notebook

Vocabulary Notebook Sample:

New Word	My Description
The distance around an object	Walking the perimeter or edge of the playground
Personal Connection	Drawing
Do you know how to calculate the perimeter of the playground?	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 Roll a Rectangle

Demonstrate: On a piece of 1" square chart paper, draw the shape as you roll them. Roll 2 dice. If you roll a 5 and a 4, you will want to draw a shape that has 2 sides that are 5 squares long (they should be across from each other) and 4 squares wide. Place an "X" on one corner and then count the number of squares all the way around. (See if students can determine that they could know this number by adding 5 + 4 + 5 + 4 = 18)

¥					
	1	2	3	4	5
	18				6
	17				7
	16				8
	15				9
	14	13	12	11	10

Ask students if they notice that the corner squares have to be counted on **BOTH** outside edges.

Inside the object, students should write the distance around in ¼ " squares.

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 1 sheet of 1/4" grid paper and 2 dice
- 3. Player 1 rolls the dice (ex. 2 and 6)
- 4. Student is to draw lines around the grid square that indicate 2 rows or columns by 6 rows or columns as well.
- 5. Beginning at one corner, students count the number of squares it is around the object.
- 6. After Player 1 is finished, Player 2 takes his/her turn
- 7. Player 2 may create his/her shape by sharing an edge with the figure drawn by Player #1, or may create a completely independent figure somewhere else on the paper,

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?

- 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:	3 rd Grade
Lesson Title:	Area and Foreheader
Focus:	Place value, addition, area

Materials:

White boards Decks of cards 30-40 paper clips for each pair

Crayolas Vocabulary Notebooks
Socks Graph paper (1/4 " squares)

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")

Problem of the Day

I am a three-digit number. The digit in my hundreds place is 3 less than the digit in my tens place. The digit in my tens place is 4 more than the number in the ones place. The number in the ones place is 9. What is my number? How do you know?

259

Fact Practice

Foreheader

- 1. Divide students into trios. Give each trio a deck of cards without face cards and jokers.
- 2. Shuffle the deck and give all of the cards to the referee who will be "judging" the contest
- 3. On go, players are each handed a card by the referee and **WITHOUT** looking, put the card face out on his/her forehead
- 4. The referee adds the two numbers together and states the answer
- 5. Each player looks at the other person's exposed number and names his/her own number
- 6. Person who wins (accuracy and time), collects both cards
- 7. Play continues until all cards are gone.

*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.



8. Players can repeat play (if there is another time) with each other so each has an opportunity to be both a player and referee

Math Vocabulary

Word for Today: Review of the word area

Description: In a figure defined by boundaries, the space inside those boundaries is considered the area. Can be measured in square feet, square inches, square miles or other means

Have students share the Vocabulary Notebooks in pairs, discussing the word, making any additions or changes.

Vocabulary Notebook Sample:

New Word	My Description
area	A way to measure the space inside of something
Personal Connection	Drawing
Can you find the area of the playground?	1 2 3 4 5 6 7 8 9
	1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 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

Review "Grid Areas" from yesterday. Discuss how the dimensions of the grid area were determined by rolling the dice.

Explain that today, "Grid Areas" will be determined the student actually measuring items in paper clips and then recording the measurement "to scale" on the grid paper, 1 clip = $\frac{1}{4}$ "box.

Demonstrate: With a string of paper clips hooked together, measure a piece of paper (count the number of clips long and the number of clips wide). Draw the form on the paper using the scale of 1 clip to 1 square. In the center of the drawing, write the number of squares total as you did yesterday).

Grid Areas #2

- 1. Divide students into pairs
- 2. Give each pair 1 sheet of ¼" grid paper and 25-30 paper clips (small work better)
- 3. Students find 3 things to measure and record the measurements (note: the size of the object is limited by the number of paper clips you give each pair of students)
- 4. Have pairs share their measurements with other students.

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.?

- 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:	3 rd Grade
Lesson Title:	Tic Tac Toe
Focus:	Math

Materials:

Enlarged Tic Tac Toe Boards—one for each pair of students (duplicate on 11" x 17" if you can Prizes (these can be time, a leadership role, opportunities to be the "teacher"

Opening

State the objective

Today we are going to have fun playing a game.

Content (the "Meat")
Activity
Tic Tac Toe

- 1. Divide students in groups of 2
- 2. Give each pair a Tic Tac Toe Board (enlarge from this lesson plan).
- 3. In order to place an "X" or and "O" in a space, students must be able to complete the math problem in the space.
- 4. Students should apply "paper, rock, scissors" to determine who will go first (best 2 out of 3).
- 5. Winner receives a High Five.

	Closing	
	Review	ļ
Say:		
•	Please recap what we did today.	

Reflection (Confirm, Tweak, Aha!)

Did we achieve our objectives?

- 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.



Tic Tac Toe Math—3rd Grade

Order the numbers below from the largest to the smallest (place the largest number on top and the smallest number on bottom. 4,789 4,897 4,987 4,876	Complete this problem: 257 +394	What is the area of area of the figure below? Write your answer on the line.
Complete this problem		Write the following number in expanded notation:
361 <u>-187</u>	A ticket to the theater cost \$5.50 in the afternoon. A soda will cost \$2.95. A popcorn and soda combo is \$4.35. If you have \$10,00, can you get a ticket, popcorn, and a soda?	5,749
Write this number that is written in expanded notation in the standard form. 9,000 + 400 + 30 + 7	What is the perimeter of the figure below? Write your answer on the line.	Write a number sentence for this story problem. Susie has 14 T-Shirts. Johanna has 11 T-Shirts. Their new friend Ruby has 19 T-Shirts. How many T-Shirts do the girls have together?



Component:	Math		
Grade Level:	3 rd Grade		
Lesson Title: Count Down and Number Hunt			
Focus: Subtraction			

Materials:		
White boards	Vocabulary Notebooks	Countdown cards from yesterday
Crayolas	12-sided dice for each pair	
Socks	Number Hunt Work Sheet	

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")	
Problem of the Day Make a design that has a minimum of 5 triangles. Fact Practice	*Activity → Teachable Moment(s) throughout During the lesson check in with students repeatedly.
 Divide students into pairs. Each pair needs a Number Hunt sheet (attached to this lesson plans). Player rolls two, 12-sided dice. Player adds or subtracts the two numbers. If the number is not yet covered, then player may cover the number. Next player repeats steps 1-3. Winner is determined by who has the most numbers covered. 	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.
Math Vocabulary Word for Today: obtuse angle	It is important to review academic math vocabulary
Description: Review the information that you shared with students yesterday about the different types of angles. Remind them that an obtuse angle is between a right angle (L) and a straight line ().	often throughout the day Complete the Vocabulary notebook for each word.



Students should review the entry on the word equation from yesterday and determine if they need to make and additions or changes.

Vocabulary Notebook Sample:

New Word	My Description
Obtuse angle	Angle that is greater than a right angle but not a straight line
Personal Connection	Drawing
My neighbor's yard is at an obtuse angle to my front yard.	> 90° < 180° Obtuse Angle

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 Count Down

Demonstrate: Review the game from yesterday. Have the students share how to play the game. Once they have demonstrated that they know how to play the game, have them play with a partner.

Materials: Deck of Count Down cards (number 11-30) for each group of 2-3 students. White board for each student

Directions:

- 1. Each student writes the number 99 at top of his/her white board
- 2. All Count Down cards are placed face down in the center of the group.
- 3. Player one draws the top card and subtracts that amount from 99 (or the total remaining from previous subtractions)
- 4. Player two then repeats.
- 5. Play continues until 0 is reached.

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.

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



- 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>



Number Hunt

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

Number Hunt

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



Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	Equal 10
Focus:	Equalities

Materials:

White boards Decks of cards Diamond Cards (from yesterday)

Crayolas Socks Vocabulary Notebooks

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat") Problem of the Day Read each clue then select the correct shape. I have 4 sides. Opposite sides are equal. All 4 sides are equal. Which shape am I? **Fact Practice** Fore-header 1. Divide students into trios. Give each trio a deck of cards without face cards and

- jokers.
- 2. Shuffle the deck and give all of the cards to the referee who will be "judging" the contest.
- 3. On go, players are each handed a card by the referee and WITHOUT looking, put the card face out on his/her forehead.
- 4. The referee adds the two numbers together and states the answer.
- 5. Each player looks at the other person's exposed number and names his/her own number.
- 6. Person who wins (accuracy and time), collects both cards.
- 7. Play continues until all cards are gone.
- 8. Players can repeat play (if there is another time) with each other so each has an opportunity to be both a player and referee.

*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.



Math Vocabulary

Word for today: acute angle

Description: Review the information that you shared with students yesterday about an acute angle. Have students identify more things in the room or outdoors that have or form an acute angle.

Have students share the Vocabulary Notebooks in pairs, discussing the word, making any additions or changes.

Vocabulary Notebook Sample:

New Word	My Description
Acute angle	An angle less than 90°
Personal Connection	Drawing *
The edges of the triangle create two acute angles	

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 Equal 10

Review the game from yesterday. Have the children explain how to play the game. When you are satisfied that they understand how to play the game, then let them form small groups.

Equal 10

Materials: Deck of Diamond Cards for each group of 2-3 students **Directions:**

- 1. Turn all of the cards face down in the center of the group.
- 2. Each person draws 5 cards from the pile and then the remaining cards are placed in a single stack, face down.
- 3. First player turns over the first card and places it up in the center of the group.
- 4. First player then looks at his/her own cards and looks for a card that can match to the center card by placing a number next to the side where the two numbers would equal 10. (Example: one side has an 8 the player places a card with a 2 on it)
- 5. If player cannot make a match, then he/she draws a card and play moves on to the second player. If there is a match, play moves to the second player and the first player does not have to draw a card.

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

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?

- 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:	3 rd Grade
Lesson Title:	Just Roll 'Em
Focus:	Place Value

Materials:

White boards Vocabulary Notebooks

Crayolas 9-sided dice
Socks Hundreds Chart

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")

Problem of the Day

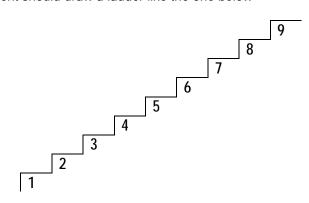
Copy each of the shapes below. Draw at least one line of symmetry on each one.



Fact Practice

Addition Ladder

- 1. Give each student a white board (include marker or crayola)
- 2. Student should draw a ladder like the one below



3. Have student roll 2 dice, total the pips and then add that number to each of 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.



numbers in the ladder, writing the sum to the right of the number

Math Vocabulary

Word for Today: symmetry

Description: Discuss the information from yesterday regarding symmetry. Discuss the ways that you drew lines of symmetry in the problem of the day. Ask students to review the information they included in the Notebook from yesterday and make additions as necessary.

Vocabulary Notebook Sample:

New Word	My Description		
symmetry	Same on two sides		
Personal Connection	Drawing		
The line of symmetry goes down the middle, trying to make it the same on both 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).

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

Activity

Just Roll 'Em

Remind students of the activity that they did yesterday. Encourage students to discuss the process and the key learnings.

Explain that today you are going to play the game again.

Just Roll 'Em

Materials: two 9-sided dice of different colors for each team

Hundreds Chart

Directions:

- 1. Designate one of the dice ones place and the other tens place (Green = ones, red = tens)
- 2. Player 1 rolls the dice and finds the number on the hundreds chart and marks the number that he/she has rolled
- 3. Player 2 repeats the process
- 4. Game is over when all the numbers (except 1-9 and 100) are marked out or covered

Note: If you don't have 9-sided dice, you can use two decks of cards with 10s, face cards and jokers removed.

- 1. Divide students into pairs
- 2. Give each pair 1 sheet of 1/4" grid paper and a string of paper clips
- 3. Students measure 3-4 items, drawing the item, writing a number sentence and labeling the perimeter for each item measured.

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

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- 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:	3 rd Grade
Lesson Title:	Just Roll 'Em
Focus:	Place Value

Materials:

White boards Vocabulary Notebooks 2 9-sided dice for each pair

Crayolas

Dice

Socks Hundreds Chart (attached)

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Problem of the Day Write your last name in all capital letters. Which letters have at least one line of symmetry?	*Activity → Teachable Moment(s) throughout		
Explain your answer. You may want to do the Problem of the Day after the vocabulary lesson today.	During the lesson check in with students repeatedly.		
Fact Practice	Check in about what is		
Spokes on a Wheel 1 Divide students into pairs	happening and what they are thinking		

- Divide students into pairs.
- 2. On a white board, student draws a small circle with 9 spokes coming out of it. (should look like a bicycle tire)

Content (the "Meat")

- 3. Have students choose to put a 6, 7 or 8 in the center circle.
- 4. Student rolls two dice and adds the pips (dots).
- 5. Taking this total, student writes a math problem on one of the spokes (eg. 7 is in the circle and students rolls a 3 and 5 which totals 8. The spoke equation would look like 7 + 8 = 15.
- 6. Process continues until all spokes have an equation.

Take advantage of any teachable moments. Stop the class and focus on a student's key learning or understanding. Ask open-

the group is thinking. When possible, engage students in a "teach to learn"

determine what the rest of

ended questions to

opportunity and have the student become the teacher.

Math Vocabulary

Word for today: symmetry

Description: Symmetry is when one shape becomes exactly like another if you flip, slide

or turn it. When you flip a shape you turn it over:

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



You can also slide something over and it will be in symmetry:



You can flip something (reflect)



The line of symmetry "slices" the two objects so that both sides are alike.

Students complete the Vocabulary Notebook

Vocabulary Notebook Sample:

New Word	My Description
Symmetry	Something that looks the same on both sides, line of symmetry is in the middle
Personal Connection	Drawing
We did a drawing and had to identify the line of symmetry.	

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 Roll 'Em

Demonstrate how to play the game using volunteers to come and learn how to play while they are teaching others.

Materials: two 9-sided dice of different colors for each team

Hundreds Chart

Directions:

- 1. Designate one of the dice ones place and the other tens place (Green = ones, red = tens)
- 2. Player 1 rolls the dice and finds the number on the hundreds chart and marks the number that he/she has rolled
- 3. Player 2 repeats the process
- 4. Game is over when all the numbers (except 1-9 and 100) are marked out or covered

Note: If you don't have 9-sided dice, you can use two decks of cards with 10s, 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

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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- 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



Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	Math Fact Match
Focus:	Operations

Materials:

White boards Vocabulary Notebooks

Crayolas deck of cards, no face cards or jokers

Socks Math Fact Cards

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")

Problem of the Day

Create a three-column page

Label one column "circle" the second acute angle, the third obtuse angle

Make a list of items (you can draw them) in your classroom that are shaped like a circle, an acute angle and an obtuse angle.

Fact Practice

Draw!

- 1. Divide students into pairs and give each pair a deck of cards.
- 2. Remove the face cards and jokers from the deck of cards.
- 3. Shuffle the deck.
- 4. Decide who will go first.
- 5. First player draws two cards.
- 6. Student adds or subtracts the cards.
- 7. Student writes his/her problem on the white board, writing a complete number sentence.
- 8. Students take turns drawing cards and creating problems.

Math Vocabulary

Word for Today: isosceles triangle

Description: An isosceles triangle is any triangle that has at least two sides that are the same length. All of these are isosceles triangles:







*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.

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



Have student complete his/her Vocabul	students acting out an equation) Vocabulary Notebooks can be made	
New Word	My Description	from ½ of a composition book
Isosceles triangle	A triangle with two equal sides and angles	
Personal Connection I have an isosceles triangle on my wall.	Drawing	
Δ.	-11-11-	Faces and have decided as a second

Activity Math Fact Match

Demonstrate: Demonstrate how the game is played following the directions below. Have volunteers come to the front and demonstrate for the other students. Ask them to each teach one person.

Materials: Deck of Math Fact Cards

Directions:

- 1. Shuffle the cards and divide them evenly between the players (2 is best).
- 2. Simultaneously, the two players turn over the top card in his/her deck.
- 3. Both players calculate the answer to the problem and calls out the answer
- 4. Player with the larger number wins both cards.
- 5. If the answers are a tie, then another round is played.

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
Thurs Whats	

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?

- 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



Math Fact Cards

7	8	7	9
<u>+4</u>	<u>+6</u>	<u>+8</u>	<u>+8</u>
9	7	7	6
<u>+9</u>	<u>+9</u>	<u>+6</u>	<u>+2</u>
5	5	2	3
<u>+6</u>	<u>+1</u>	<u>+5</u>	<u>+4</u>
3	5	8	2
<u>+6</u>	<u>+4</u>	<u>+4</u>	<u>+3</u>
1	2	1	1
<u>+9</u>	<u>+2</u>	<u>+3</u>	<u>+2</u>



18	17	16	16
<u>-9</u>	<u>-6</u>	<u>-9</u>	<u>-3</u>
15	15	14	14
<u>-8</u>	<u>-5</u>	<u>-5</u>	<u>-2</u>
13	13	10	11
<u>-6</u>	<u>-5</u>	<u>-6</u>	<u>-6</u>
11	12	12	10
<u>-8</u>	<u>-4</u>	<u>-6</u>	<u>-4</u>
9	8	5	4
<u>-7</u>	<u>-3</u>	<u>-1</u>	<u>-3</u>



often throughout the day

Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	Equal 10
Focus:	Addition

Materials:

White boards Decks of cards

Crayolas Vocabulary Notebooks

Socks Diamond Cards (attached at the end of plan)

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")					
Problem of the Day How is a and a alike? How are they different? Share your answer with a peer. Fact Practice	*Activity → Teachable Moment(s) throughout During the lesson check in with students repeatedly.				
 Addition War Divide students into pairs. Give each pair a deck of cards without face cards and jokers. 	Check in about what is happening and what they are thinking.				
 Shuffle the deck and divide the cards evenly between the two players. On go, the players turn over the cards at the same time. Students add the 2 numbers that have been turned up. First person to give the answer either wins the cards because the answer is correct, or has to turn over 2 cards because he/she gave the wrong answer. At the end of round, students may reshuffle the pile of cards that they have. Play can continue until one player has all cards or time has called. 	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.				
Math Vocabulary Word for Today: acute angle	It is important to review academic math vocabulary				

Description: An acute angle is one that is more than '0" but less than 90°. A 90° angle is



called a right angle. It looks like the letter L An Acute angle would be less than the L, it would look more like this in a triangle:

Ask children to look around the room and locate things that form an acute angle. Ask for volunteers to come up and form an acute angle. They can start with a right angle and then close it up to an acute angle.

Vocabulary Notebook Sample:

New Word	My Description
Acute angle	An angle that is less than 90°
Personal Connection	Drawing
The Triscut has several acute angles.	

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 Equal 10

Materials: Deck of Diamond Cards for each group of 2-3 students **Directions:**

- 1. Turn all of the cards face down in the center of the group
- 2. Each person draws 5 cards from the pile and then the remaining cards are placed in a single stack, face down.
- 3. First player turns over the first card and places it up in the center of the group
- 4. First player then looks at his/her own cards and looks for a card that can match to the center card by placing a number next to the side where the two numbers would equal 10 (Example: one side has an 8 the player places a card with a 2 on it)
- 5. If player cannot make a match, then he/she draws a card and play moves on to the second player. If there is a match, play moves to the second player and the first player does not have to draw a card.

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" player getting ready to play this game so he/she could get all the blocks are completed.



- 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.



Diamond Cards

	1			4			7	
2	\times	2	8		7	3		8
	5			<u>9</u> 1			4	
	5			1			6	
3	\times	7	3	\times	3	7	\times	<u>6</u>
	<u>6</u>			4			7	
	4			6			3	
2	\times	8	2	\times	2	8		2
	<u>6</u>			8			5	
	4			2			5	
4	\times	1	<u>9</u>	\times	1	<u>9</u>	\times	3
	<u>9</u>			5			5	
	1			5			5	
5	\times	4	<u>6</u>	\times	3	7	\times	<u>6</u>
	<u>9</u>			7			7	



	1			3			3	
2	\times	<u>9</u>	1		5	5	\times	8
	5			8			7	
	5	$\overrightarrow{\ \ }$		2	$\overrightarrow{\ \ }$		3	
4	\/	4	4		1	9		7
						/		
	6	\longrightarrow		5	\longrightarrow		2	\rightarrow
	6			6			8	
8	\times	4	<u>6</u>	\times	3	7	\times	8
	<u>6</u>			<u>9</u>			5	
	<u>6</u> 4			9 1			5	
7	\times	8	2	\times	<u>6</u>	4	\times	<u>6</u>
	<u>9</u>			8			7	
	1	\nearrow		2	\nearrow		3	
4	\times	5	5	\times	9	1	\times	5
	<u>9</u>			<u>6</u>			3	



Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	Math Fact Match
Focus:	Operations

Materials:

White boards Vocabulary Notebooks
Crayolas Double 9 Dominoes
Socks Math Fact Cards

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

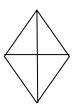
How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")

Problem of the Day

Look at the kite below. How many angles are there?



Fact Practice

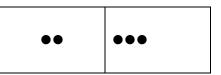
Spots and Dots

There is a master of Double 9 Dominos attached to this lesson plan. You will need 1 full set for each pair of students in your class. It is recommended that you duplicate on card stock and if possible, laminate for use again in the future.

Players sit across from each other.

Dominoes are between them, face (or spots) down.

Each student draws a domino and writes the addition problem on their white board, adding the numbers represented by the spots Example: Domino drawn is



Addition: 2 + 3 = 5

*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.



Math Vocabulary

Word for Today: isosceles triangle

Description: Review with the students the information that you gave them yesterday about an isosceles triangle. Go for a walk outdoors and find right angles (sidewalk corners, lines that come together on the basketball court, etc.), obtuse or acute angles as well. Have groups of children form the angle—say four students on each side, and then have a row of children the base of the triangle. In this way they are forming a variety of isosceles triangles.

When you go back to the classroom have students check the Vocabulary entry from yesterday and decide if they want to add to it.

Have students share the Vocabulary Notebooks in pairs, discussing the word, making any additions or changes.

Vocabulary Notebook Sample:

New Word	My Description
Isosceles triangle	A triangle with 2 equal sides and angles (not equilateral)
Personal Connection	Drawing
That park is in the form of an isosceles 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.

Activity Math Fact Match

Review: Review how to play the game children learned yesterday.

Math Fact Match

Materials: Deck of Math Fact Cards

Directions:

1. Shuffle the cards and divide them evenly between the players (2 is best).

- 2. Simultaneously, the two players turn over the top card in his/her deck.
- 3. Both players calculate the answer to the problem and calls out the answer.
- 4. Player with the larger number wins both cards.
- 5. If the answers are a tie, then another round is played.

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?

- 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

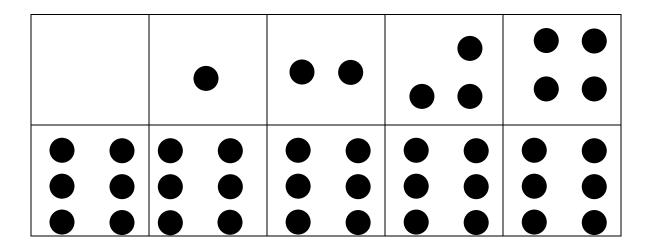
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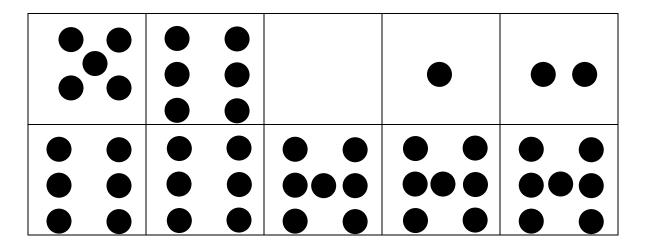
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Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	Count Down
Focus:	Subtraction

Materials:

White boards Vocabulary Notebooks

Crayolas Cards

Socks Count Down Cards

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

	Content (the "Meat")	
Use as n	Problem of the Day nany different shapes as you can to draw a robot. (Use at least 4 different shapes)	*Activity >> Teachable Moment(s) throughout
Target	Fact Practice	During the lesson check in with students repeatedly.
1. I 2. I	Divide students into trios. Each trio needs a deck of cards without face cards and jokers. Place the cards face up in a TicTac Toe Grid.	Check in about what is happening and what they are thinking.
4.	Turn up a 10 th card which will be to the side and becomes the target number (aces count as 1)	Take advantage of any teachable moments.
5. I	Each player makes an equation with some or all of the numbers in the grid to equal the target number. Students may add or subtract.	Stop the class and focus on a student's key learning or understanding. Ask open-
7. /	Each card may be used only one time in the equation. As the cards are being picked up, the player must say the equation aloud—for example if the target card is 10, then I could say 6 + 4 = 10, and pick up the 6 and the	ended questions to determine what the rest of the group is thinking.
8. <i>i</i>	4. After one player finishes his/her turn, then the cards taken are replaced by cards from the remaining deck.	When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.
9. 1	Player with the most cards at the end of the game win.	student become the teacher.
	Math Vocabulary r today: obtuse angle tion: Like the acute angle an obtuse angle has a relationship with a right angle, or the	It is important to review academic math vocabulary often throughout the day.
	otuse angle is any angle that is greater than 90° but less than 180°. 180° is a straight	Complete the Vocabulary



line, so if you created a straight angle (line) then it is more than an obtuse angle. Ask children to come up and form right angles, acute angles, and an obtuse angle. Also have students look for obtuse angles in the classroom.

Students should complete the Vocabulary Notebook.

Vocabulary Notebook Sample:

New Word	My Description
Obtuse angle	An angle bigger than a right angle and small than a straight line
Personal Connection	Drawing
Can you find an obtuse angle in your yard?	> 90° < 180° Obtuse Angle

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 Count Down

Explain to students that they are going to have an opportunity to play a new game. **Demonstrate** how to play the game choosing volunteers to come and demonstrate.

Count Down

Materials: Deck of Count Down cards (number 11-30) for each group of 2-3 students. White board for each student

Directions:

- 1. Each student writes the number 99 at top of his/her white board
- 2. All Count Down cards are placed face down in the center of the group.
- 3. Player one draws the top card and subtracts that amount from 99 (or the total remaining from previous subtractions)
- 4. Player two then repeats.
- 5. Play continues until 0 is reached.

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?

- 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>



Count Down Cards

11	12	13	14
15	16	17	18
19	20	21	22
23	24	25	26
27	28	29	30



students creating a right angle,

Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	99
Focus:	Mental MathAddition

Materials:

additions or changes.

White boards Vocabulary Notebooks

Crayolas dice (6-sided and 12-sided for each pair)
Socks deck of cards for every 2-3 students

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")	
Problem of the Day Write the capital letters that have at least 1 right angle in them.	*Activity → Teachable Moment(s) throughout
Fact Practice Fact Family	During the lesson check in with students repeatedly. Check in about what is
A Fact Family is 3 numbers which have a relationship in addition and subtraction. For example, the number 9, 4, and 13 have a particular relationship in math. This family has four members: $9 + 4 = 13$	happening and what they are thinking. Take advantage of any teachable moments.
4 + 9 = 13 13 - 9 = 4 13 - 4 = 9 Students should roll 2 dice and create a Fact Family by writing the members of the family on	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.
the white board. Student should roll a total of 5 times, creating 5 Fact Families	When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.
Math Vocabulary	It is important to review
Word for Today: right angle Description: A right angle is shaped like an L. You can see a right angle when you lay your hand on a table and form an L along the thumb and pointer finger. Look at the letters of the alphabet and determine which of them have a right angle—look at both capital and lower	academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word.
case letters. Have students find other right angles throughout the room and identify them. Have students share the Vocabulary Notebooks in pairs, discussing the word, making any	When possible, have students experience the word. (Ex. 4



Vocabulary Notebook Sample:	multiple students acting out an	
New Word	My Description	equation.)
Right angle	An angle in the shape of a capital L	Vocabulary Notebooks can be made from ½ of a composition book.
Personal Connection	Drawing	
The wall of the house is at a right angle to the foundation		

Activity 99

Share the rules of 99 with the students

Each card counts for its face value except:

9's simply allow the player to pass, they are neither added to or subtracted from the total.

10's are a – 10, requiring the player to subtract 10 from the total.

the joker is "99" (you can play after the joker if you have a 9, a 10, or another joker) Aces count as 1 and all face cards are 10.

Demonstrate: Show kids how to play this game. Do it by having all of the cards be open and face up

Directions:

- 1. Each player is dealt 3 cards.
- 2. The first player plays a card and states the value of the card.
- 3. First player draws a card, keeping his/her hand at 3 cards.
- 4. The second player plays a card and states the value of the two cards added together (unless the second player plays a 9, a 10 or a joker). Second player draws a card, keeping his/her hand at 3 cards.
- 5. For example, if player 1 plays a 7, he/she would say 7. Draws a card. If the second player plays an 8, he/she would say 15. Draws a card. If a third player plays a ten, he/she would say 5, and so on. Draws a card.
- 6. The player to reach 99 with **NO OTHER PLAYER** being able to play a card, wins. Remember, after the pile reaches 99, players can still play a 9, 10 or joker.

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	
T1 14/1 1		

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?



- 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.



Complete the Vocabulary

Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	99
Focus:	Addition and Subtraction

Materials:

White boards Vocabulary Notebooks

Crayolas Copies of activities at end of Lesson Plan Socks Deck of cards, no 10s, face cards, or jokers

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

room and see if they can find other right angles (not the ones they found yesterday). Ask students

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

	Content (the "Meat")	
	Problem of the Day	*Activity → Teachable
a ⊙	= 5 and a ♥ = 3, what would be the total of the problem below:	Moment(s) throughout
		During the lesson check in with students repeatedly.
		Check in about what is
	Bump It Up! Add A Zero	happening and what they ar
1.	Divide students into pairs.	thinking.
2.	Give each pair a white board and a deck of cards (without face cards, jokers, or 10s).	Take advantage of any teachable moments.
3.	The object of this fact practice is to sum numbers until you reach 1,000.	Stop the class and focus on
4.	Student draws 2 cards, adds the value of the cards together, multiplies by ten and writes the total on the sheet.	student's key learning or
5.	It is not the other person's turn to do the same.	understanding. Ask open- ended questions to determine
6.	When play returns to the first player, the process is repeated, although this time, the totals are added together.	what the rest of the group is thinking.
7.	First person to 1,000 wins.	When possible, engage
8.	Example: Player draws a 7 and a 4. Total is 11. Multiply by 10 (add the zero) equals	students in a "teach to learn
	110. Next turn, player draws a 3 and a 2 which totals 5. Multiply by 10 and I now add 50	opportunity and have the
	to 110 for a total of 160.	student become the teacher
	Math Vocabulary	It is important to review
Word for Today: right angle		academic math vocabulary
escri	ption: Review the information that you shared with students yesterday. Look around the	often throughout the day.



to identify the different shape that have at least one right angle.

Review the entry from yesterday. Have students discuss in pairs and determine if they want to make any changes in the Vocabulary Notebook entry.

Vocabulary Notebook Sample:

New Word	My Description
Right angle	And angle that looks like a capital L with 90° in the L
Personal Connection	Drawing
He turned the corner at a right angle	

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 99

Remind the students of the rules of 99.

Each card counts for its face value except:

9's simply allow the player to pass, they are neither added to or subtracted from the total. 10's are a – 10, requiring the player to subtract 10 from the total.

the joker is "99" (you can play after the joker if you have a 9, a 10, or another joker). Aces count as 1 and all face cards are 10.

Demonstrate: Show kids how to play this game. Do it by having all of the cards be open and face up.

Directions:

- 1. Each player is dealt 3 cards.
- 2. The first player plays a card and states the value of the card.
- 3. First player draws a card, keeping his/her hand at 3 cards.
- 4. The second player plays a card and states the value of the two cards added together (unless the second player plays a 9, a 10 or a joker). Second player draws a card, keeping his/her hand at 3 cards.
- 5. For example, if player 1 plays a 7, he/she would say 7. Draws a card. If the second player plays an 8, he/she would say 15. Draws a card. If a third player plays a ten, he/she would say 5, and so on. Draws a card.
- 6. The player to reach 99 with **NO OTHER PLAYER** being able to play a card, wins. Remember, after the pile reaches 99, players can still play a 9, 10 or joker.

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	
Ciosing	

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?

- 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:	3 rd Grade
Lesson Title:	Tic Tac Toe
Focus:	Tic Tac Toe

Materials:

Enlarged Tic Tac Toe Boards—one for each pair of students (duplicate on 11" x 17" if you can Prizes (these can be time, a leadership role, opportunities to be the "teacher"

Opening

State the objective

Today we are going to have fun playing a game.

Content (the "Meat")

Activity

Tic Tac Toe

- 1. Divide students in groups of 2.
- 2. Give each pair a Tic Tac Toe Board (enlarge from this lesson plan).
- 3. In order to place an "X" or and "O" in a space, students must be able to complete the math problem in the space.
- 4. Students should apply "paper, rock, scissors" to determine who will go first (best 2 out of 3).
- 5. Winner receives a High Five.

Closing

Review

Say:

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

- 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.



Tic Tac Toe Math—3rd Grade

Order the numbers below from the largest to the smallest (place the largest number on top and the smallest number on bottom. 2,987 2,889 3,010 2,991	1,423 +2,678	Jordan weighs 123 pounds. His older brother weighs 53 pounds more. How much does his older brother weigh?
1,023 -968	Judy's first class begins at 9:00 a.m. It is a double period which last for 1 hour and 40 minutes. What time is it when Judy's first class is over?	Write the following number in expanded notation: 71,246
Write this number that is written in expanded notation in the standard form. $70,000 + 8,000 + 200 + 60 + 9$	Josh goes to the store with a \$20 bill. He picks up several items and takes them to the check stand. When the items are totaled and the tax asked, Josh has spent \$13.47. How much change will Josh have?	Write a number sentence for this story problem. Julie has sold 312 candy bars during week 1. During week 2 she sold 219 candy bars. During week three how many candy bars will she need to sell to reach her goals of 750?



Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	What's Your Product?
Focus:	Multiplication

Materials:

White boards Vocabulary Notebooks
Crayolas Deck of Cards for each pair

Socks Product Grid

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

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Problem of the Day

Below are three problems that equal 15.

 $3 \times 5 = 15$

8 + 7 = 15

10 + 5 = 15

Write two more problems that will have 15 as the answer.

Fact Practice

Target

- 1. Divide students into trios.
- 2. Each trio needs a deck of cards without face cards and jokers.
- 3. Place the cards face up in a TicTac Toe Grid.
- 4. Turn up a 10th card which will be to the side and becomes the target number (aces count as 1).
- 5. Each player makes an equation with some or all of the numbers in the grid to equal the target number. Students may add or subtract.
- 6. Each card may be used only one time in the equation.
- 7. As the cards are being picked up, the player must say the equation aloud—for example if the target card is 10, then I could say 6 + 4 = 10, and pick up the 6 and the 4.

*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.



- 8. After one player finishes his/her turn, then the cards taken are replaced by cards from the remaining deck.
- 9. Player with the most cards at the end of the game win.

Math Vocabulary

Word for today: equals

Description: Equals is a word that means that two things represent the same value. For example if you want something to equal 8 you could simply write 8, or you could write 2 x 4 = 8, 10 - 2 = 8, 4 + 4 = 8, or $16 \div 2 = 8$. The important thing is that what every you put on the two sides of the equals sign represents the same number.

Students should complete the Vocabulary Notebook.

Vocabulary Notebook Sample:

New Word	My Description			
equals	Two or more things having the same value			
Personal Connection	Drawing			
14 equals 10 + 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 What's Your Product

Materials:

Deck of cards, remove all cards except Aces (1s), 2s, 3s, 4s, 5s, and 6s. (You may want two decks for each group)

Grid of numbers 1-36

Markers

Directions:

- 1. Markers cover the Product Grid.
- 2. Player 1 draws two cards and finds the product.
- 3. He/she then removes the marker that covers that product.
- 4. Player 2 repeats the process.
- 5. If a player has a product that has already been removed, then play goes to the other player.
- 6. Player with the most markers at the end of the game, wins.

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?

- 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.



Product Grid

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	



Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	What's Your Product?
Focus:	Multiplication

Materials:

White boards Vocabulary Notebooks Materials from yesterday

Crayolas 12-sided dice for each pair Socks Number Hunt Work Sheet

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")

Problem of the Day

Look at the numbers below. There is a pattern in this list of numbers. Figure out the pattern and write the next three numbers.

10, 11, 13, 16, 20,

Fact Practice

Number Hunt

- 1. Divide students into pairs.
- 2. Each pair needs a Number Hunt sheet (attached to this lesson plans).
- 3. Player rolls two, 12-sided dice.
- 4. Player adds or subtracts the two numbers.
- 5. If the number is not yet covered, then player may cover the number.
- 6. Next player repeats steps 1-3.
- 7. Winner is determined by who has the most numbers covered.

*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.



Math Vocabulary

Word for Today: pattern

Description: Pattern is a word that describes how something is organized and then repeats itself over and over. For example, ♥♥ \(\beta\) \(\psi\) \(\psi\), is a pattern. We could say that the pattern is heart, heart, sun, sun, heart, heart, sun, sun; or we could describe the pattern as AABBAABB. If we can recognize the pattern we can tell what will happen next. In this pattern 3, 6, 9, 12, ___ understanding the pattern would inform us that the next number is 15. Create an entry in the Vocabulary Notebook for the word pattern.

Vocabulary Notebook Sample:

New Word	My Description
pattern	Organized display of items that allow you to predict what is coming
Personal Connection	Drawing
He created a pattern on the calendar using suns and moons.	÷÷◆◆◆◆↑111÷

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 What's Your Product

Students played this game yesterday. Review the rules before you have the students play.

Materials:

Deck of cards, remove all cards except Aces (1s), 2s, 3s, 4s, 5s, and 6s. (You may want two decks for each group) Grid of numbers 1-36

Markers

Directions:

- Markers cover the Product Grid.
- Player 1 draws two cards and finds the product.
- He/she then removes the marker that covers that product.
- 4. Player 2 repeats the process.
- If a player has a product that has already been removed, then play goes to the other player.
- Player with the most markers at the end of the game, wins.

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?

- 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.



Number Hunt

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

Number Hunt

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



Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	Ninety-Nine
Focus:	Addition and Subtraction

Materials:

White boards Vocabulary Notebooks

Crayolas deck of cards, no face cards or jokers for math fact practice
Socks deck of cards for each team with all cards present for game 99

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")

Problem of the Day

When you write a number in expanded notation you write out each part of the number and create an addition problem. The number of erasers that Jorge has in storage is 53,297. In expanded notation that would be written as 50,000 + 3,000 + 200 + 90 + 7. How do you know that this is correct?

Fact Practice

Draw!

- 1. Divide students into pairs and give each pair a deck of cards.
- 2. Remove the face cards and jokers from the deck of cards.
- 3. Shuffle the deck.
- 4. Decide who will go first.
- 5. First player draws two cards.
- 6. Student adds or subtracts the cards.
- 7. Student writes his/her problem on the white board, writing a complete number sentence.
- 8. Students take turns drawing cards and creating problems.

*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.



Math Vocabulary

Word for Today: expanded notation

Description: Expanded notation is a way of writing a number so you can see exactly what went into that number in each of the places. For example, the number 345 is a three digit number with numeral in the hundreds, tens, and ones place. In the hundreds place there is 300, in the tens place there is 40, and in the ones place there is 5. When you add those numbers together—300 + 40 + 5 you get the three digit number 345.

Have student complete his/her Vocabulary Notebook.

Vocabulary Notebook Sample:

New Word	My Description	
Expanded notation	478 = 400 + 70 + 8	
Personal Connection	Drawing	
Place the number 5, 928 into expanded notation: 5,000 + 900 +20 +8	600 + 50 + 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.

Activity Ninety Nine

Materials: Deck of Cards (all cards including jokers)

Players: 2-4

Purpose of the game: Practice mental math in adding and subtracting, and game strategies. Total value of pile can never exceed "99".

Directions:

Each card counts for its face value except:

- 9's simply allow the player to pass, they are neither added to or subtracted from the total.
- 10's are a 10, requiring the player to subtract 10 from the total.
- the joker is "99" (you can play after the joker if you have a 9, a 10, or another joker)
- Aces count as 1 and all face cards are 10.
- Each player is dealt 3 cards.
- 2. The first player plays a card and states the value of the card.
- 3. First player draws a card, keeping his/her hand at 3 cards.
- 4. The second player plays a card and states the value of the two cards added together (unless the second player plays a 9, a 10 or a joker). Second player draws a card, keeping his/her hand at 3 cards.
- 5. For example, if player 1 plays a 7, he/she would say 7. Draws a card. If the second player plays an 8, he/she would say 15. Draws a card. If a third player plays a ten, he/she would say 5, and so on. Draws a card.



6. The player to reach 99 with **NO OTHER PLAYER** being able to play a card, wins. Remember, after the pile reaches 99, players can still play a 9, 10 or joker.

	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"?

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)

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

- 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:	3 rd Grade
Lesson Title:	Ninety-Nine
Focus:	Addition and Subtraction

Materials:

White boards Vocabulary Notebooks
Crayolas Double 9 Dominoes

Socks Deck of playing cards for each team

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")

Problem of the Day

Below you will find 5 numerals. Write 3 different 3 digit numbers using the five numerals.

2 6 9 1 7

Fact Practice

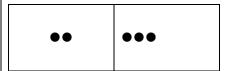
Spots and Dots

There is a master of Double 9 Dominos attached to this lesson plan. You will need 1 full set for each pair of students in your class. It is recommended that you duplicate on card stock and if possible, laminate for use again in the future.

Players sit across from each other.

Dominoes are between them, face (or spots) down.

Each student draws a domino and writes the addition problem on their white board, adding the numbers represented by the spots Example: Domino drawn is



Addition: 2 + 3 = 5

*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.



Math Vocabulary

Word for Today: place value

Description: In our number system there are 10 numerals: 0, 1, 2, 3, 4, 5 6 7 8, and 9. These numerals can be arranged and rearranged to create any number that we need. The "place" the numeral occupies lets you know the value of the numeral. In a 7 digit number: 3,425,678, the places represented are millions, hundred thousand, ten thousand, thousand, hundred, tens, ones. The 3 represents 3,000,000 in this number, but would represent 30 in the number 39. Place value lets us know how many.

Create an entry for place value in your Vocabulary Notebook.

Vocabulary Notebook Sample:

New Word	My Description
Place value	The value of a numeral in a particular spot in a number
Personal Connection	Drawing
In the number 487, 4 is in the hundred's place.	487

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 Ninety Nine

Review how to play this game that students learned yesterday.

Materials: Deck of Cards (all cards including jokers)

Players: 2-4

Purpose of the game: Practice mental math in adding and subtracting, and game strategies. Total value of pile can never exceed "99".

Directions:

Each card counts for its face value except:

- 9's simply allow the player to pass, they are neither added to or subtracted from the total.
- 10's are a 10, requiring the player to subtract 10 from the total.
- the joker is "99" (you can play after the joker if you have a 9, a 10, or another joker).
- Aces count as 1 and all face cards are 10.
- 1. Each player is dealt 3 cards.
- 2. The first player plays a card and states the value of the card.
- 3. First player draws a card, keeping his/her hand at 3 cards.
- 4. The second player plays a card and states the value of the two cards added together (unless the second player plays a 9, a 10 or a joker). Second player draws a card,



keeping his/her hand at 3 cards.

- 5. For example, if player 1 plays a 7, he/she would say 7. Draws a card. If the second player plays an 8, he/she would say 15. Draws a card. If a third player plays a ten, he/she would say 5, and so on. Draws a card.
- 6. The player to reach 99 with NO OTHER PLAYER being able to play a card, wins. Remember, after the pile reaches 99, players can still play a 9, 10 or joker.

	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"?

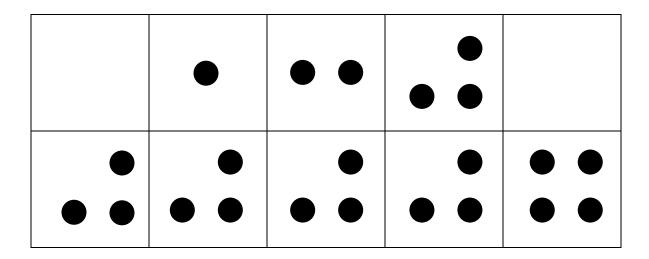
What advice would you give to a "new" student getting ready to do this activity?

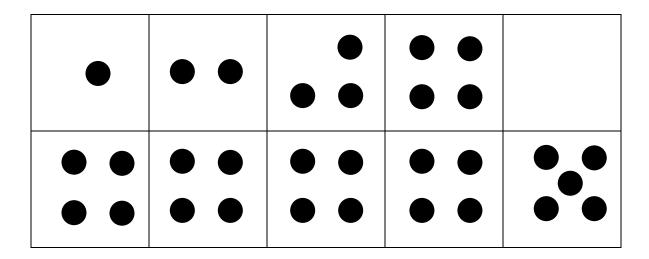
- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them.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



Double 9 Dominoes

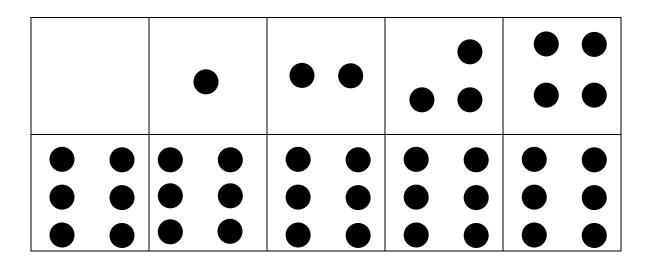
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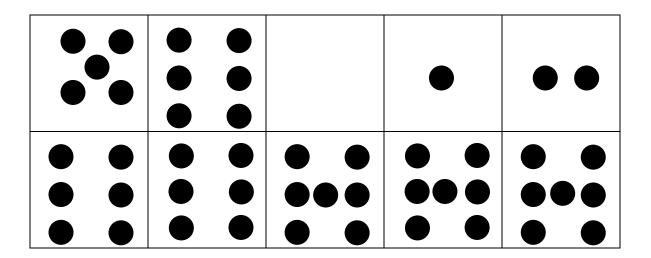






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Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	How Close Can You Get?
Focus:	Operations

Materials:

White boards Decks of cards

Crayolas Vocabulary Notebooks

Socks

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? How can you tell that you are on the right track for solving the problem? What are the basic operations that you need to utilize during math?

Content	(the	"Meat"
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Problem of the Day

Write a story problem that can be solved with this number sentence:

32 + 19 = 51

Fact Practice

Addition War

- Divide students into pairs. Give each pair a deck of cards without face cards and jokers.
- Shuffle the deck and divide the cards evenly between the two players.
- On go, the players turn over the cards at the same time.
- Students add the 2 numbers that have been turned up.
- First person to give the answer either wins the cards because the answer is correct, or has to turn over 2 cards because he/she gave the wrong answer.
- At the end of round, students may reshuffle the pile of cards that they have.
- Play can continue until one player has all cards or time has called.

*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.



Math Vocabulary

Word for Today: digit

Description: In math the word digit refers to any symbol that represents a number. In the system we use to number there are 10 numerals, 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9. It is the way that you organize or place these 10 numerals that tells you the number of things that you are talking about. 589 is a three digit number. 4,921 is a 4 digit number. 89,021 is a five digit number. What would be an example of a 6 digit number? Create an entry in your Vocabulary Notebook for the word digit.

Vocabulary Notebook Sample:

New Word	My Description
digit	Symbol that represents a number
Personal Connection	Drawing
This number has 5 digits in it: 67,834.	67,834

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 Close Can You Get

Materials:

- Deck of cards—remove face cards and 10s, use jokers as a zero
- White board or paper for game board (spaces show you how many cards you need)

Purpose of Game: Create a number that is as close to the number at the end of the row on the game board (5, 25, 50, 100,1000)

Directions:

- Students work in pairs.
- 2. Students prepare the game board (see attached work sheet).
- 3. Shuffle cards and deal 8 cards to each player.
- 4. Player 1 selects one of his/her eight cards and writes the value of the card in the box he/she believes will help him/her get close to the target number on the left.
- 5. After completing play, Player 1 draws a card and play passes to the second player.
- 6. Play continues until both have completed the game board.
- 7. Players calculate the difference between his/her number and the target number. Students add the difference and player with small different, wins.



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" player getting ready to play this game so he/she could get all the blocks are completed.

- 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.



How Close Can You Get?

		5
		25
		50
		100
		1,000



Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	How Close Can You Get?
Focus:	Operations

Materials:

White boards Decks of cards

Crayolas Vocabulary Notebooks

Socks

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")

Problem of the Day

If you are working a subtraction problem, how does knowing your addition facts help you to solve that problem? Explain

Fact Practice

Fore-header

- 1. Divide students into trios. Give each trio a deck of cards without face cards and jokers.
- 2. Shuffle the deck and give all of the cards to the referee who will be "judging" the contest.
- 3. On go, players are each handed a card by the referee and WITHOUT looking, put the card face out on his/her forehead.
- 4. The referee adds the two numbers together and states the answer.
- 5. Each player looks at the other person's exposed number and names his/her own number.
- **6.** Person who wins (accuracy and time), collects both cards.
- 7. Play continues until all cards are gone.
- **8.** Players can repeat play (if there is another time) with each other so each has an opportunity to be both a player and referee.

*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.



Math Vocabulary

Word for today: math fact

Description: A math fact is a basic problem in addition, subtraction, multiplication or division, that works with a family of numbers that, if memorized, will make math be much easier. Math facts are like the foundation of a house. They are the building blocks for the rest of your ability to work with number operations. Examples of math facts are 7 + 5 = 12, 7 + 6 = 13, 7 + 7 = 14, and 7 + 8 = 15. 24 + 39 = 63 is not a math fact.

Create and entry in your Vocabulary Notebook for the phrase math fact.

Vocabulary Notebook Sample:

New Word	My Description
Math fact	The foundation of addition, subtraction, multiplication and division
Personal Connection	Drawing
I have memorized my addition math facts.	3+4=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

How Close Can You Get

Play the game, How Close Can You Get again today. Review the game with the students to be sure they understand how to play.

Materials:

- Deck of cards—remove face cards and 10s, use jokers as a zero
- White board or paper for game board

Purpose of Game: Create a number that is as close to the number at the end of the row on the game board (5, 25, 50, 100)

Directions:

- 1. Students work in pairs.
- 2. Students prepare the game board (see attached work sheet).
- 3. Shuffle cards and deal 8 cards to each player.
- 4. Player 1 selects one of his/her eight cards and writes the value of the card in the box he/she believes will help him/her get close to the target number on the left.
- 5. After completing play, Player 1 draws a card and play passes to the second player.
- 6. Play continues until both have completed the game board.
- 7. Players calculate the difference between his/her number and the target number. Students add the difference and player with small different, wins.



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?

- 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:	3 rd Grade
Lesson Title:	Countdown to Blast Off
Focus:	Subtraction

Materials:

White boards Vocabulary Notebooks

Crayolas dice (6-sided and 12-sided for each pair)
Socks deck of cards for every pair of students

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")	
Problem of the Day Copy the addition problem below and show the answer.	*Activity → Teachable Moment(s) throughout
342 + 241 =	During the lesson check in with students repeatedly.
Fact Practice Fact Family	Check in about what is happening and what they are thinking.
A Fact Family is 3 numbers which have a relationship in addition and subtraction. For	Take advantage of any teachable moments.
example, the number 9, 4, and 13 have a particular relationship in math. This family has four members: $9+4=13\\4+9=13\\13-9=4\\13-4=9$	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.
Students should roll 2 dice and create a Fact Family by writing the members of the family on the white board. Student should roll a total of 5 times, creating 5 Fact Families.	When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.
Math Vocabulary Word for Today: place value	It is important to review academic math vocabulary often throughout the day.



Description: Review what you discussed about place value yesterday. Have children write 3 digit, 4 digit, 5 digit, 6 digit, and 7 digit numbers. After they have done each one, have them pair with another student and explain the value of each number based on the place that it is in. Have students share the Vocabulary Notebooks in pairs, discussing the word, making any additions or changes.

Vocabulary Notebook Sample:

New Word	My Description
Place value	Whether the number is worth tens, hundred, or thousands depends on the place value a number is given
Personal Connection	Drawing
In the number 456, the 5 is in the tens place.	456

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

Countdown to Blast Off!

Materials:

- Deck of cards without jokers and face cards for each student.
- White board or paper.

Directions:

- 1. Children play this game in pairs.
- 2. Each student gets a deck of cards (as described above) and shuffles the deck and places all cards face down.
- 3. Student writes the number 100 at the top of the paper.
- 4. Student draws a card, writes the value of the card underneath the 100 (or the remaining total) and subtracts the value of the card.
- 5. Student draws a second card and repeats.
- 6. This continues until the player is at or below zero.
- 7. Both students are working as quickly and accurately as they can.
- 8. Winner is the player who reaches 0 or lower first without errors.
- 9. Students should check one another's work.



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?

- 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:	3 rd Grade
Lesson Title:	Count Down to Blast Off
Focus:	Subtraction

Materials:

White boards Vocabulary Notebooks

Crayolas Deck of cards

Socks

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")		
Problem of the Day	*Activity → Teachable Moment(s) throughout	
If \forall = 3 and \odot = 6, what is the answer to the problem below? \forall + \odot + \forall + \forall	During the lesson check in with students repeatedly.	
Fact Practice Bump It Up! Add A Zero 1. Divide students into pairs. 2. Give each pair a white board and a deck of cards (without face cards, jokers, or 10s). 3. The object of this fact practice is to sum numbers until you reach 1,000. 4. Student draws 2 cards, adds the value of the cards together, multiplies by ten and writes the total on the sheet. 5. It is not the other person's turn to do the same. 6. When play returns to the first player, the process is repeated, although this time, the totals are added together. 7. First person to 1,000 wins. 8. Example: Player draws a 7 and a 4. Total is 11. Multiply by 10 (add the zero) equals 110. Next turn, player draws a 3 and a 2 which totals 5. Multiply by 10 and I now add 50 to 110 for a total of 160.	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.	
Math Vocabulary	It is important to review academic math vocabulary	



Word for Today: algebra

Description: Algebra is a name for a certain type of math. In algebra you usually use alphabet letters to represent an unknown number. Once you have the number represented, then you are better able to figure out what the number should be. For example, in this simple algebra problem, 4 + n = 6, we can figure out what "n" equals if we think about what we know. We know that when we count and we start at 4, to get to six we need to say two more numbers. We might also know that 2, 4, and 6 are an addition fact family. Either way, the "n" lets us know what number we are looking for.

Create an entry for the word "algebra" in your Vocabulary Notebook.

Vocabulary Notebook Sample:

New Word	My Description
algebra	A way of describing math in a broad, universal way
Personal Connection	Drawing
I am interested in learning more about algebra.	4x = 8 $x = 2$

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 Countdown to Blast Off!

Review how to play this game from yesterday.

Materials:

- Deck of cards without jokers and face cards for each student.
- White board or paper

Directions:

- 1. Children play this game in pairs.
- 2. Each student gets a deck of cards (as described above) and shuffles the deck and places all cards face down.
- 3. Student writes the number 100 at the top of the paper.
- 4. Student draws a card, writes the value of the card underneath the 100 (or the remaining total) and subtracts the value of the card.
- 5. Student draws a second card and repeats.
- 6. This continues until the player is at or below zero.
- 7. Both students are working as quickly and accurately as they can.
- 8. Winner is the player who reaches 0 or lower first without errors.
- 9. Students should check one another's work.



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. ?

- 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:	3 rd Grade
Lesson Title:	Multiply and Then Subtract
Focus:	Operations

Materials:

White boards Vocabulary Notebooks

Crayolas Dice

Socks deck of cards for each pair (remove face cards and jokers)

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? How can you tell that you are on the right track for solving the problem?

What are the back are also and the high additional for the problem

What are the basic operations that you need to utilize during math?

Conte	nt ((the	"M	eat"

Problem of the Day

Write the numbers below in order from the largest to the smallest.

439 612 139 452

Fact Practice

Spokes on a Wheel

- 1. Divide students into pairs.
- 2. On a white board, student draws a small circle with 9 spokes coming out of it (should look like a bicycle tire).
- 3. Have students choose to put a 6, 7 or 8 in the center circle.
- 4. Student rolls two dice and adds the pips (dots).
- 5. Taking this total, student writes a math problem on one of the spokes (eg. 7 is in the circle and students rolls a 3 and 5 which totals 8. The spoke equation would look like 7 + 8 = 15.
- 6. Process continues until all spokes have an equation.

*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.



Math Vocabulary

Word for today: < and >

Description: These symbols, < and >, represent the words greater than and less than. The pointed end of the symbol is directed at the smaller of the two numbers that you are comparing. For example, 4 < 9, and 9 > 3. In the first example you would say four is less than nine, and in the second example you would say nine is greater than 3.

Students complete the Vocabulary Notebook

Vocabulary Notebook Sample:

	New Word	My Description
	< and >	Greater than and Less than
ľ	Personal Connection	Drawing
	These symbols area for greater than, > and less than, <.	<and></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.

Activity Multiply and Then Subtract

Materials

Deck of card (remove face cards use jokers for the zero (0)

Directions:

- 1. Pair students.
- 2. Shuffle the deck.
- 3. Player 1 draws 2 cards, multiplies and states the product.
- 4. Player 2 does the same.
- 5. Player with largest product subtracts the product of the opponent and that is his/her points.
- 6. Play continues until player has reached the target number (say 500 points).



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?

- 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



Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	Multiply and Then Subtract
Focus:	Multiplication

Materials:

White boards Vocabulary Notebooks

Crayolas dice

Socks deck of cards for each pair (jokers and face cards removed)

Opening

State the objective

Today we are going to practice using our math vocabulary and skills.

Gain prior knowledge by asking students the following questions

What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")

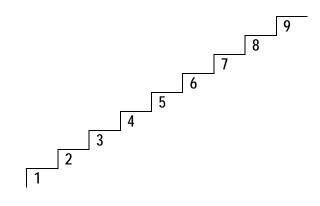
Problem of the Day

Jordan, Maria, Patty, Joe, and Fred are standing in line to get a snack. Jordan is the second person in line and Patty is right behind him at number 3. Fred is standing behind Patty and in front of Joe. Who's first? How do you know?

Fact Practice

Addition Ladder

- 1. Give each student a white board (include marker or crayola).
- 2. Student should draw a ladder like the one below.



*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. Have student roll 2 dice, total the pips and then add that number to each of the numbers in the ladder, writing the sum to the right of the number.

Math Vocabulary

Word for Today: logic

Description: Logic is a word that describes the way you think. Another word for logic is reasonable. In the problem of the day today you needed to use logic to figure out the answer. You are given clues and you have to come up with an answer by thinking it through and making sense of the information you have.

Create an entry for the word logic in your Vocabulary Notebook.

Vocabulary Notebook Sample:

New Word	My Description
logic	Makes sense, likely to occur
Personal Connection	Drawing
He put the information together in a logical manner.	logic

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 Multiply and Then Subtract

You will play this game for the second day. Review the rules before beginning play. **Materials**

• Deck of card (remove face cards use jokers for the zero (0)

Directions:

- Pair students.
- Shuffle the deck.
- 3. Player 1 draws 2 cards, multiplies and states the product.
- 4. Player 2 does the same.
- 5. Player with largest product subtracts the product of the opponent and that is his/her points.
- 6. Play continues until player has reached the target number (say 500 points) and jokers removed.



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?

- 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:	3 rd Grade
Lesson Title:	Tic Tac Toe
Focus:	Review

Materials:

Enlarged Tic Tac Toe Boards—one for each pair of students (duplicate on 11" x 17" if you can Prizes (these can be time, a leadership role, opportunities to be the "teacher"

Opening

State the objective

Today we are going to have fun playing a game.

Content (the "Meat")	
Activity	

Tic Tac Toe

- 1. Divide students in groups of 2.
- 2. Give each pair a Tic Tac Toe Board (enlarge from this lesson plan).
- 3. In order to place an "X" or and "O" in a space, students must be able to complete the math problem in the space.
- 4. Students should apply "paper, rock, scissors" to determine who will go first (best 2 out of 3).
- 5. Winner receives a High Five.

Closing

Review

Say:

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

- 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.



Tic Tac Toe Math—3rd Grade

Order the numbers below from the largest to the smallest (place the largest number on top and the smallest number on bottom. 9,356 9,431 8,997 9,441	5,687 +9,387	Julie has 513 recipe cards. Her friend Mavis has 387. How many recipe card do they have all together?
Complete this problem 4,571 -879	What is the total value of a \$10.00 bill, 3 \$1.00 bills, 3 quarters, 4 dimes, and 6 pennies?	Write the following number in expanded notation: 4,378,921
Write this number that is written in expanded notation in the standard form. 4,000,000 + 200,000 + 30,000 + 7,000 + 200 + 90 + 8	Say you pay for a \$12.46 item at Walgreen's. You give the clerk a \$20.00 bill. How much change will you get?	Write a number sentence for this story problem. Fred read 2,787 pages of books last year. The year before, Fred read 6,301 pages. How many more pages did he read the year before.



Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	Double Draw
Focus:	Division

Materials:

White boards Vocabulary Notebooks

Crayolas dice (6-sided and 12-sided for each pair)
Socks deck of cards for every pair of students

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")

Problem of the Day

The school is having a candy sale. Martin sold 3 times as many candy bars as Jorge. Larry sold twice as many candy bars as Martin. Jorge sold 7 candy bars. How many candy bars did the boys sell altogether? Explain your answer.

Fact Practice Fact Family

A Fact Family is 3 numbers which have a relationship in addition and subtraction. For example, the number 9, 4, and 13 have a particular relationship in math. This family has four members:

9 + 4 = 13

4 + 9 = 13

13 - 9 = 4

13 - 4 = 9

Students should roll 2 dice and create a Fact Family by writing the members of the family on the white board. Student should roll a total of 5 times, creating 5 Fact Families.

*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



Math Vocabulary

Word for Today: dividend

Description: The term "dividend" refers to the number that represents the total that is being divided. For example, a dividend \div divisor = quotient. $12 \div 3 = 4$. In this case the dividend is 12. (The 3 is the divisor and the quotient is 4).

Have students look at the problems below and identify the dividend in each:

 $27 \div 3 = 9$

 $16 \div 2 = 8$

 $56 \div 7 = 8$

 $35 \div 5 = 7$

Have student create and entry in his/her Vocabulary Notebook for the term "dividend". Any corrections that need to be made should be made.

Vocabulary Notebook Sample:

New Word

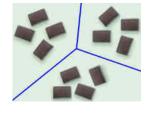
My Description

dividend The total you want to divide up

Personal Connection

How many potatoes do you have to divide among the 14 people?

Drawing



student become the teacher.

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 Double Draw

Materials: 2 decks of cards, remove face cars and jokers. Decks must have different color backs.

Directions:

- 1. Cards are shuffled and placed in 2 piles. (Keep each set of cards in a separate pile.)
- 2. First player takes a card from each pile and turns it over.
- 3. If the numbers are the same the player scores a point.
- 4. If one number can be divided evenly into the other number, the player scores a point.
- 5. The cards are then put in 2 discard piles and the next player has a turn OR the game can continue for longer if the discarded piles are shuffled and returned to play.



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?

- 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:	3 rd Grade
Lesson Title:	Double Draw
Focus:	Division

Materials:

White boards Vocabulary Notebooks

Crayolas Deck of cards

Socks

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

When would you use division?

Content (the "Meat")

Problem of the Day

Melanie and Maddie are playing a game. Each time they roll the dice they total the pips. Each time they roll a number that is evenly divided by both 3 and 4, the person gets 1 point. Who will win the game if the chart below shows the numbers rolled:

Melanie	12	20	28	46	60
Maddie	16	24	36	48	60

Fact Practice Bump It Up! Add A Zero

- 1. Divide students into pairs.
- 2. Give each pair a white board and a deck of cards (without face cards, jokers, or 10s).
- 3. The object of this fact practice is to sum numbers until you reach 1,000.
- 4. Student draws 2 cards, adds the value of the cards together, multiplies by ten and writes the total on the sheet.
- 5. It is not the other person's turn to do the same.

*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



- 6. When play returns to the first player, the process is repeated, although this time, the totals are added together.
- 7. First person to 1,000 wins.
- 8. Example: Player draws a 7 and a 4. Total is 11. Multiply by 10 (add the zero) equals 110. Next turn, player draws a 3 and a 2 which totals 5. Multiply by 10 and I now add 50 to 110 for a total of 160.

student become the teacher.

Math Vocabulary

Word for Today: dividend

Description: The term "dividend" refers to the number that represents the total that is being divided. For example, a dividend \div divisor = quotient. $12 \div 3 = 4$. In this case the dividend is 12. (The 3 is the divisor and the quotient is 4).

Have students look at the problems below and identify the dividend in each:

 $18 \div 3 = 6$

 $10 \div 2 = 5$

 $48 \div 6 = 8$

 $36 \div 9 = 4$

Review the entry for the word "dividend" in the Vocabulary Notebook with a peer. Make any changes necessary.

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.

Vocabulary Notebook Sample:

New Word	My Description			
dividend	The total amount you are dividing up			
Personal Connection	Drawing			
We have a total of 35 cookies to divide between 8 people.				

Activity Double Draw

Materials: 2 decks of cards, remove face cars and jokers. Decks must have different color backs.

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

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?

- 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:	3 rd Grade
Lesson Title:	Target Board Game
Focus:	Multiplication

Materials:

White boards Vocabulary Notebooks
Crayolas Deck of Cards for each pair
Socks Target (end of this lesson plan)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

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Problem of the Day

Write one multiplication and one division fact to illustrate the picture below:

Fact Practice

Target

- 1. Divide students into trios.
- 2. Each trio needs a deck of cards without face cards and jokers.
- 3. Place the cards face up in a TicTac Toe Grid.
- 4. Turn up a 10th card which will be to the side and becomes the target number (aces count as 1)
- 5. Each player makes an equation with some or all of the numbers in the grid to equal the target number. Students may add or subtract.
- 6. Each card may be used only one time in the equation.
- 7. As the cards are being picked up, the player must say the equation aloud—for example if the target card is 10, then I could say 6 + 4 = 10, and pick up the 6 and the 4.

*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



- 8. After one player finishes his/her turn, then the cards taken are replaced by cards from the remaining deck.
- 9. Player with the most cards at the end of the game win.

Math Vocabulary

Word for today: factor / product

Description: The two terms, factor and product, refer to what you call the numbers in a multiplication problem. The factors are the two numbers that you would multiply together and the product is the answer. For example in the problem $6 \times 7 = 42$, the factors are 6 and 7, the product is 42. Identify the factors and the products in each of the problems below:

 $4 \times 9 = 36$

 $7 \times 8 = 56$

 $9 \times 2 = 18$

 $7 \times 9 = 63$

Students should complete the Vocabulary Notebook for the two connected terms: factor and product

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

Vocabulary Notebook Sample:

New Word	My Description
factor / product	the factor are what you multiply, the product is the answer
Personal Connection	Drawing
When you multiply 3 x 4 (the factors), you get a product of 12.	$-3 \times 4 = 12$

Activity Target

Materials: Target Board, pair of dice for each team (can use 6 sided or 9 sided dice) **Directions:**

- 1. Program leader places a number in each color of the target (should be a number that represents a "fact" that you are reinforcing).
- 2. Player selects the color on the target that he/she is going for.
- 3. Player rolls 1 or 2 dice. The total of the one or two dice becomes the multiplier.
- 4. Player then multiplies the "target number" x's the multiplier. Writes the product on his/her tally paper.
- 5. Play continues.
- 6. When play returns to the first player, step 3 is repeated. The product is added to the original product.
- 7. Winner is the first player to reach or go over 1,000.

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?

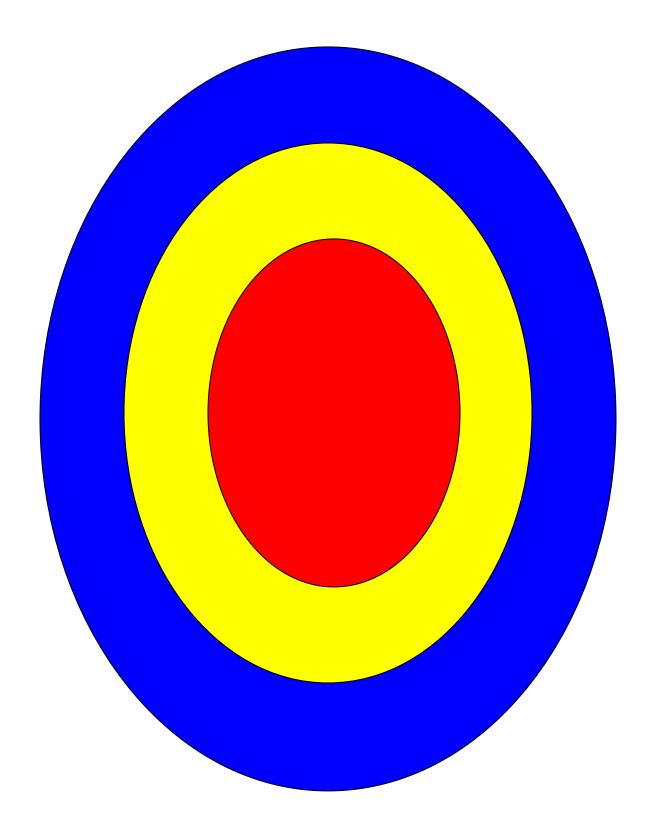
What opportunities might you have to do this same thing in the "real world"?

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

- 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!)



Target Game Board





Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	Target Board Game
Focus:	Addition and Subtraction

Materials:			
White boards	Vocabulary Notebooks	Materials from yesterday	
Crayolas	12-sided dice for each pair		
Socks	Number Hunt Work Sheet		

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")	
Problem of the Day	*Activity → Teachable Moment(s) throughout
Write a multiplication problem that has the product of 30. Then write a story to match the problem.	During the lesson check in with students repeatedly.
x = 30	Check in about what is happening and what they are thinking.
Fact Practice	Take advantage of any teachable moments
Number Hunt	Stop the class and focus on a
1. Divide students into pairs.	student's key learning or
Each pair needs a Number Hunt sheet (attached to this lesson plans). Player rolls true 13 sided dies.	understanding. Ask open-
3. Player rolls two, 12-sided dice.	ended questions to determine what the rest of
4. Player adds or subtracts the two numbers.5. If the number is not yet covered, then player may cover the number.	the group is thinking
	When possible, engage
6. Next player repeats steps 1-3.7. Winner is determined by who has the most numbers covered.	students in a "teach to learn" opportunity and have the



Math Vocabulary

Word for Today: factor / product

Description: The two terms, factor and product, refer to what you call the numbers in a multiplication problem. The factors are the two numbers that you would multiply together and the product is the answer. For example in the problem $6 \times 7 = 42$, the factors are 6 and 7, the product is 42. Identify the factors and the products in each of the problems below:

 $3 \times 9 = 27$

 $9 \times 8 = 72$

 $9 \times 5 = 45$

 $7 \times 2 = 14$

Review yesterday's entry with a peer. Make any corrections or additions necessary

Vocabulary Notebook Sample:

Nem o x / = 42, the factors are $o and /$, the	11010
in each of the problems below:	Whe
	stuc
	(Ex.
	righ
	(Ex. righ acti
	Voc
orrections or additions necessary.	he r

New Word	My Description
factor / product	two factors multiplied together result in a product
Personal Connection	Drawing
What is the product of the factors 21 multiplied by 4?	21 x 4 = 84

student become the teacher

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 Target

Materials: Target Board, pair of dice for each team (can use 6 sided or 9 sided dice)

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	

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?

- 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!)



Number Hunt

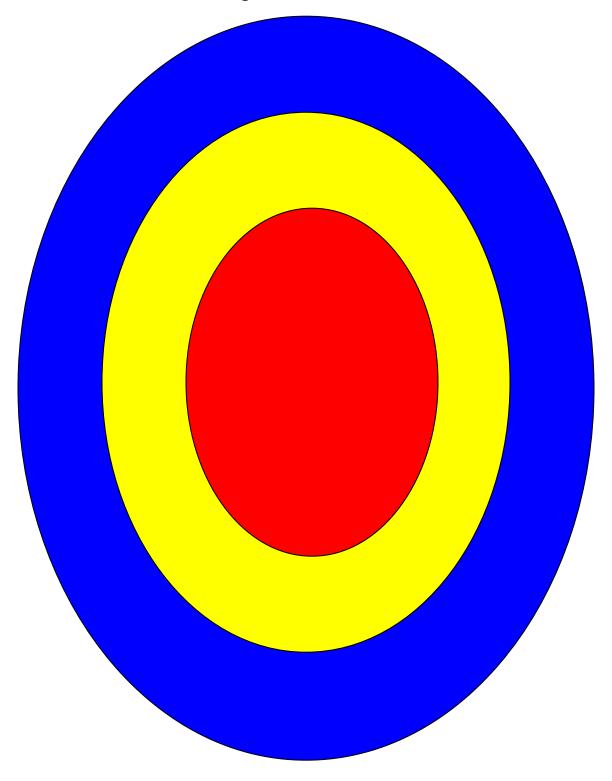
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

Number Hunt

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



Target Game Board





Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	Tic Tac 15
Focus:	Addition

Materials:

White boards Vocabulary Notebooks

Crayolas deck of cards, no face cards or jokers for math fact practice

Socks

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")

Problem of the Day

George says that the rule for the table below is to multiply by 6. Is he right? Explain your answer.

In	4	5	6	7	8
Out	24	30	36	42	48

Fact Practice

Draw!

- 1. Divide students into pairs and give each pair a deck of cards
- 2. Remove the face cards and jokers from the deck of cards.
- 3. Shuffle the deck.
- 4. Decide who will go first.
- 5. First player draws two cards.
- 6. Student adds or subtracts the cards.
- 7. Student writes his/her problem on the white board, writing a complete number sentence.
- 8. Students take turns drawing cards and creating problems.

*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.

Engage students in a "teach to learn", have the student become the teacher.



Math Vocabulary

Word for Today: divisor

Description: The term "divisor" refers to the number you divide by. For example, a dividend \div divisor = quotient. $12 \div 3 = 4$. In this case the divisor is 3. (The 12 is the dividend and the quotient is 4).

Have students look at the problems below and identify the divisor in each:

 $9 \div 3 = 3$

 $16 \div 4 = 4$

 $49 \div 7 = 7$

 $32 \div 8 = 4$

Have student complete his/her Vocabulary Notebook for the term "divisor".

Vocabulary Notebook Sample:

New Word	My Description		
divisor	the number you divide by		
Personal Connection	Drawing		
In the problem 30 ÷ 6, the divisor is 6.	30 ÷ 6 = 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 Tic Tac 15

Materials: Deck of Cards (remove 10s. face cards and jokers), White boards, Vis-à-vis pens or crayolas

Directions:

- 1. Group students in pairs.
- 2. Remove one ace, 2, 3, 4, 5, 6, 7, 8, and 9 from the deck.
- 3. Place all other cards back in the box and spread the cards out in front of the players face down.
- 4. Create a 3 x 3 grid on the white board or other paper.
- 5. Player one draws a card and places it in any space in the grid.
- 6. Player two draws a card and places it in a square.
- 7. Players continue placing cards until the sum of three numbers in a vertical, horizontal or diagonal row equals 15. The player who puts down the winning cards say, "Tic Tac 15." If no players reach 15, a new game is begun.
- 8. Players should have a 5 or 10 game tournament. Keep track of wins to decide who is the Tic Tac 15 champ.

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?

- 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:	3 rd Grade
Lesson Title:	Tic Tac 15
Focus:	Addition

Materials:

White boards Vocabulary Notebooks
Crayolas Double 9 Dominoes

Socks Deck of playing cards for each team

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")

Problem of the Day

On Saturday afternoon the movie admission is only \$5.00. For your birthday 23 people are going to the movie. How much will it cost altogether?

Fact Practice

Spots and Dots

There is a master of Double 9 Dominos attached to this lesson plan. You will need 1 full set for each pair of students in your class. It is recommended that you duplicate on card stock and if possible, laminate for use again in the future.

Players sit across from each other.

Dominoes are between them, face (or spots) down.

Each student draws a domino and writes the addition problem on their white board, adding the numbers represented by the spots Example: Domino drawn is

••

*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



Addition: 2 + 3 = 5

Math Vocabulary

Description: The term "divisor" refers to the number you divide by. For example, a dividend \div divisor = quotient. $12 \div 3 = 4$. In this case the divisor is 3. (The 12 is the dividend and the quotient is 4).

Have students look at the problems below and identify the divisor in each:

 $27 \div 3 = 9$

 $16 \div 2 = 8$

 $56 \div 7 = 8$

 $35 \div 5 = 7$

Have student review his/her Vocabulary Notebook for the term "divisor" with a peer. Any corrections that need to be made should be made.

Vocabulary Notebook Sample:

New Word	My Description
divisor	the number you divide a total by, for example: 25 ÷ 5
Personal Connection	Drawing
If I want to divide 9 apples by 3, the divisor is 3.	

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.

student become the teacher.

It is important to review

Activity
Tic Tac 15

Materials: Deck of Cards (remove 10s. face cards and jokers), White boards, Vis-à-vis pens or 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

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"?

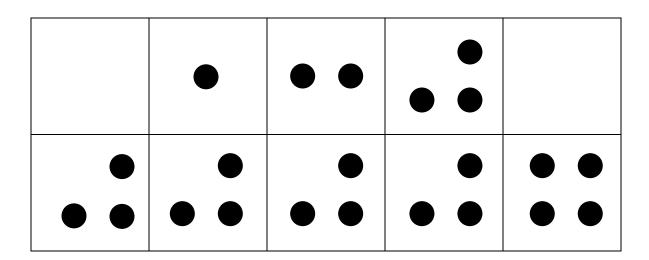
What advice would you give to a "new" student getting ready to do this activity?

- Ask students to think about what they did today in math.
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- 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!)



Double 9 Dominoes

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Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	Multiples
Focus:	Multiples

Materials:

White boards Vocabulary Notebooks

Crayolas Dice

Socks deck of cards for each pair (remove face cards and jokers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

.Content (the "Meat")

Problem of the Day

If there are two mystery numbers that total 138. If one of the numbers is 32 more than the second number, what are the two numbers? How do you know? Note for leader: [a + (a + 32)] = 138.

Fact Practice

Spokes on a Wheel

- 1. Divide students into pairs.
- 2. On a white board, student draws a small circle with 9 spokes coming out of it (should look like a bicycle tire).
- 3. Have students choose to put a 6, 7 or 8 in the center circle.
- 4. Student rolls two dice and adds the pips (dots).
- 5. Taking this total, student writes a math problem on one of the spokes (eg. 7 is in the circle and students rolls a 3 and 5 which totals 8. The spoke equation would look like 7 + 8 = 15.
- **6.** Process continues until all spokes have an equation.

*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.
Math Word for today: multiples Description: The term, multiples, refers t multiply by the same number. For exampl would begin with 4 x 1, then followed with then would be 4, 8, 12, 16 20, and so on. Students complete the Vocabulary Notebook Sample: New Word multiples Personal Connection What are the multiples of 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.
This activity will give students an opportun will also give them an understanding of the number has a multiple of 2 included. Seei a different way. Materials: Multiples Game Board, dice for Directions: 1. Roll 1 or 2 dice. 2. Mark the multiples of the number that Note: Numbers may be marked more	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?

- 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.



Multiples

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	7 5	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
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144			<u>'</u>			



Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	Multiples
Focus:	Multiplication

Materials:

White boards Vocabulary Notebooks

Crayolas dice

Socks Multiples Game Board (at end of lesson plan)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")

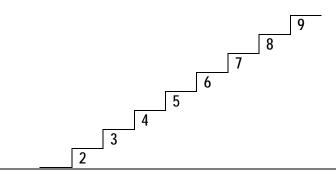
Problem of the Day

Mom purchased 3 bags of cookies. Each bag has 84 cookies in it. How many cookies did Mom purchase altogether. Write both and addition and a multiplication problem to show your answer.

Fact Practice

Addition Ladder

- 1. Give each student a white board (include marker or crayola)
- 2. Student should draw a ladder like the one below



*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



1 student become the teacher.

3. Have student roll 2 dice, total the pips and then add that number to each of the numbers in the ladder, writing the sum to the right of the number

Math Vocabulary

Word for Today: multiples

Description: The term, multiples, refers to numbers in a list that are gotten when you multiply by the same number. For example, if you want to know the multiples of 4, you would begin with 4 x 1, then followed with 4 x 2, 4 x 3, 4 x 4, 4 x 5 and so on. The multiples then would be 4, 8, 12, 16 20, and so on. Multiples can be found by skip counting as well. List several numbers on the board and have students name and/or list the multiples.

3 (3, 6, 9, 12, 15, 18, 21, 24, 27, 30)

5 (5, 10, 15, 20, 25, 30, 35, 40, 45, 50)

6 (6, 12, 18, 24, 30, 36, 42, 48, 54, 60)

Review the entry for the term "multiples" in your Vocabulary Notebook with a peer, making any edits necessary.

Vocabulary Notebook Sample:

New Word	My Description
multiples	numbers that you say when you are counting by a particular number
Personal Connection	Drawing
5, 10, 15, 20, 25, and 30 are multiples of five.	5, 10, 15, 20, 25

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 Multiples

Materials: Multiples Game Board, dice for each pair of students, game tokens **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

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?

- 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!)



Multiples

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
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144						





Component:	Math
Grade Level: 3 rd Grade	
Lesson Title:	Which Sign Is It?
Focus:	Addition and Subtraction

Materials:

White boards Decks of cards

Crayolas Vocabulary Notebooks
Socks What Sign Is It #1

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")

Problem of the Day

There are 23 cookies on the counter. An hour later there are 48 cookies on the counter. How many cookies were added to the counter in the hour? Explain how you know.

Fact Practice

Addition War

- Divide students into pairs. Give each pair a deck of cards without face cards and jokers.
- Shuffle the deck and divide the cards evenly between the two players.
- On go, the players turn over the cards at the same time.
- Students add the 2 numbers that have been turned up.
- First person to give the answer either wins the cards because the answer is correct, or has to turn over 2 cards because he/she gave the wrong answer.
- At the end of round, students may reshuffle the pile of cards that they have.
- Play can continue until one player has all cards or time has called.

*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.

Engage students in a "teach to learn", have the student become the teacher.



Math Vocabulary

Word for Today: equation

Description: In math the word equation refers to a number sentence that will express a relationship between the operation on one side of the = sign to the numbers on the other side of the =. For example, 7 + 5 = 12 is an equation that lets us know that if you add 7 and 5 together it will be related to 12 in that this is the number you would get when adding. An equation finds the balance between the two sides. In a complex equation, the following might be a sample:

 $(6 \times 3) - 4 = 3^2 + 3$

Create an entry in your Vocabulary Notebook for the term "equation".

Vocabulary Notebook Sample:

New Word	My Description
equation	a number sentence with two sides being equal
Personal Connection	Drawing
I can write an equation: 3 + 4 = 7	3+4=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

Materials: Which Sign Is It game board, pencils. (If you would like to use the game board more than one, place in a sheet protector or laminate.)

Which Sign Is It? #1

Directions:

- 1. Group students in pairs.
- 1. As a pair, students write a + of sign in each box to complete the equations. Play continues until both have completed the game board.
- 2. Players calculate the difference between his/her number and the target number. Students add the difference and player with small different, wins.

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" player getting ready to play this game so he/she could get all the blocks are completed.

- 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!)



16

What Sign Is It? #1

3	4	2	6	3	2	2	=	12
9	3	2	4	0	3	4	=	8
7	3	4	8	4	5	6	=	17
2	1	8	2	4	3	7	=	15
4	7	5	4	3	5	6	=	20
1	1	6	4	3	4	3	=	8
2	6	4	4	3	2	5	=	6
5	3	2	7	2	0	4	=	11
6	3	1	4	6	4	2	=	12

6 2 6 2

8



Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	Which Sign Is It?
Focus:	Addition and Subtraction

Materials:

White boards Decks of cards

Crayolas Vocabulary Notebooks

Socks Which Sign Is It #2 at end of the lesson plan

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")					
Problem of the Day What is the missing number in the equation below:	*Ad Mo				
	During with s				
	Check				
Fact Practice					
Foreheader	thinkir Take				
Divide students into trios. Give each trio a deck of cards without face cards and jokers. Shuffle the deck and give all of the cards to the reference who will be "judging" the cartest.					
2. Shuffle the deck and give all of the cards to the referee who will be "judging" the contest. 3. On go, players are each handed a card by the referee and WITHOUT looking, but the card					

- 3. On go, players are each handed a card by the referee and WITHOUT looking, put the card face out on his/her forehead.
- 4. The referee adds the two numbers together and states the answer.
- 5. Each player looks at the other person's exposed number and names his/her own number
- **6.** Person who wins (accuracy and time), collects both cards.
- 7. Play continues until all cards are gone.
- 8. Players can repeat play (if there is another time) with each other so each has an opportunity to be both a player and referee.

*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



Math Vocabulary

Word for today: equation

Description: In math the word equation refers to a number sentence that will express a relationship between the operation on one side of the = sign to the numbers on the other side of the =. For example, 7 + 5 = 12 is an equation that lets us know that if you add 7 and 5 together it will be related to 12 in that this is the number you would get when adding. An equation finds the balance between the two sides. In a complex equation, the following might be a sample:

$$(6 \times 3) - 4 = 3^2 + 3$$

Have students create at least 5 equations that are more challenging the 3 + 5 = 8				
Review the entry in your Vocabulary Notebook for the term equation with a peer. Edit if				
necessary.				
Vocabulary Notebook Sample:				
Name Ward	M. D. andullan			

New Word	My Description
equation	a number sentence, both sides equal the same thing
Personal Connection	Drawing
I have 3 dolls. My friend has 2 dolls. Together we have 5 dolls. This can be written into an equation: 3 + 2 = 5	3+2=5

student become the teacher.

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 Which Sign Is It? #2

Materials: Which Sign Is It game board, pencils (You can place the sheet in a sheet protector for reuse or laminate it.

Directions:

- 1. Group students in pairs
- 1. As a pair, students write a + of sign in each box to complete the equations. Shuffle cards and deal 8 cards to each player
- 2. Player 1 selects one of his/her eight cards and writes the value of the card in the box he/she believes will help him/her get close to the target number on the left
- 3. After completing play, Player 1 draws a card and play passes to the second player
- Play continues until both have completed the game board
- Players calculate the difference between his/her number and the target number. Students add the difference and player with small different, wins

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.

- 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.



What Sign Is It? #2

6	2	5	3	9	2	8	=	7
4	6	3	2	3	8	1	=	10
1	9	2	4	7	5	3	=	13
3	1	7	3	1	6	1	=	18
5	4	3	6	5	3	3	=	11
7	2	6	10	3	8	4	=	14
9	4	6	2	4	2	7	=	8
8	7	5	4	7	6	4	=	9
6	3	2	5	4	3	6	=	13

5 4

7

2



Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	Student Activity Choice
Focus:	Review

Materials:

Game Boards and materials from this week.

Prizes (these can be time, a leadership role, opportunities to be the "teacher"

Opening

State the objective

Today we are going to have fun playing a game. Students will be able to choose from the games learned in the past two weeks.

Content (the "Meat")

Activity

Today students will select the game from the week that they most want to play. Pairs can select different games. Game choices are:

- Double Draw
- Tic Tac 15
- Target
- Multiples
- · Which Sign Is It?

Closing

Review

Say:

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

- 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:	3 rd Grade
Lesson Title:	Multiplication and Division Time
Focus:	Multiplication and Division

Materials:

White boards and Socks Vocabulary Notebooks

Crayolas dice

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")

Problem of the Day

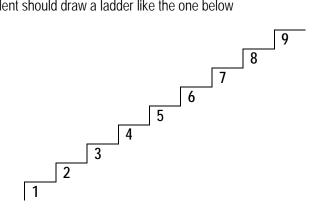
Use <and > symbols to make the following statements be correct:

387 is less than 421 643 is greater than 631 296 is less than 581

Fact Practice

Addition Ladder

- 1. Give each student a white board (include marker or crayola)
- 2. Student should draw a ladder like the one below



3. Have student roll 2 dice, total the pips and then add that number to each of 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.



numbers in the ladder.	writing the sum	to the right of the numbe	r.
		to the right of the right	

Math Vocabulary

Word for Today: dividend

Description: The term dividend is used to identify the number (the total) that is going to be divided in a division problem. For example: dividend ÷ divisor = quotient

$$16 \div 4 = 4$$

The 16 is the dividend.

Create the entry for the term "dividend" in your Vocabulary.

Vocabulary Notebook Sample:

New Word	My Description	
dividend	a dividend is the total amount that you have to separate into groups	
Personal Connection	Drawing	
In the problem $16 \div 4 = 4$, 16 is the dividend.	16 ÷ 8 = 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.

Activity

Multiplication and Division Time!

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.

Multiplication and Division Time!

This activity will give students an opportunity to practice multiplication facts.

Multiplication and Division Time! Directions:

- 1. Divide the students into pairs.
- 2. Give each pair a deck of cards—remove the face cards (you can use the joker as a 0), a white board and pen/crayon for each student.
- 3. Shuffle the cards and deal them to each player until all of the cards are distributed.
- 4. Each player turns a card over.
- 5. Each player writes the Fact Family on his/her white board.

Example: Cards turned over are a 3 and a 5. Each player would write the following four problems on his/her board

$$3 \times 5 = 15$$
 and $5 \times 3 = 15$

 $15 \div 3 = 5$ and $15 \div 5 = 3$

- 6. Player who turns white board over with the correct 4 problems first, takes the two cards.
- 7. Students erase white board and play again.



	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. (Aha!)



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Multiplication and Division Time 2
Focus:	Multiplication and Division

Materials:

White boards Vocabulary Notebooks

Crayolas Dice

Socks Cards(remove face cards, use the joker as a zero)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Con	tent	(the '	"Meat	"

Problem of the Day

The bakery sold 4,361 cupcakes and 4,631 chocolate chip cookies. Did the bakery sell more cupcakes or cookies? How do you know?

Fact Practice

Spokes on a Wheel

- 1. Divide students into pairs.
- 2. On a white board, student draws a small circle with 9 spokes coming out of it (should look like a bicycle tire).
- 3. Have students choose to put a 6, 7 or 8 in the center circle.
- 4. Student rolls two dice and adds the pips (dots).
- 5. Taking this total, student writes a math problem on one of the spokes (eg. 7 is in the circle and students rolls a 3 and 5 which totals 8. The spoke equation would look like 7 + 8 = 15.
- **6**. Process continues until all spokes have an equation.

*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.



Math Vocabulary

Word for today: divisor

Description: Divisor is a term we use to define the number you divide by. In a division problem it is the dividend ÷ divisor = quotient. In a real example it is

$$18 \div 6 = 3$$

The 6 is the divisor. Write several problems on the board and have students circle the divisor.

Students complete the Vocabulary Notebook for the term "divisor".

Vocabulary Notebook Sample:

New Word	My Description	
divisor	number you divide into another number	
Personal Connection	Drawing	
In the problem 20 divided by 5 the divisor is 5.	20 ÷ 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

Multiplication and Division Time!

This activity will give students an opportunity to practice multiplication facts.

Multiplication and Division Time!

Directions:

- 1. Divide the students into pairs.
- 2. Give each pair a deck of cards—remove the face cards (you can use the joker as a 0), a white board and pen/crayon for each student.
- 3. Shuffle the cards and deal them to each player until all of the cards are distributed.
- 4. Each player turns a card over.
- 5. Each player writes the Fact Family on his/her white board.

Example: Cards turned over are a 3 and a 5. Each player would write the following four problems on his/her board

 $3 \times 5 = 15$ and $5 \times 3 = 15$

 $15 \div 3 = 5$ and $15 \div 5 = 3$

6. Player who turns white board over with the correct 4 problems first, takes the two cards.

Students erase white board and play again.

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. (Aha!)



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Magic Squares
Focus:	Problem Solving

Materials:

White boards Decks of cards

Crayolas Vocabulary Notebooks

Socks

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")

Problem of the Day

Can you figure out the number from the clues? I am a four digit number. My first and last digits are the same. The digit in my tens place is 8. The sum of my ones digit and tens digit is 12. The sum of all four digits is 21. What is the number? How do you know?

Fact Practice

Foreheader

- 1. Divide students into trios. Give each trio a deck of cards without face cards and jokers.
- 2. Shuffle the deck and give all of the cards to the referee who will be "judging" the contest.
- 3. On go, players are each handed a card by the referee and WITHOUT looking, put the card face out on his/her forehead.
- 4. The referee adds the two numbers together and states the answer.
- 5. Each player looks at the other person's exposed number and names his/her own number.
- **6.** Person who wins (accuracy and time), collects both cards.
- 7. Play continues until all cards are gone.
- **8.** Players can repeat play (if there is another time) with each other so each has an opportunity to be both a player and referee.

*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



Math Vocabulary

Word for today: inequality

Description: An inequality says that two values are not equal. For example, $7 \ne 9$ says that 7 is not equal to 9.

There are a variety of ways to say that two numerals are not equal. The first is \neq which means does not equal. Another is the pair for greater than and less than comparison, > and <. Another symbol that is similar is \geq which means grater or equal to and the \leq which means less than or equal. Being familiar with these symbols is important. Create an entry for the word "inequality" in your Vocabulary Notebook.

Vocabulary Notebook Sample:

New Word	My Description
inequality	things that are not equal, like 9 and 3 aren't equal
Personal Connection	Drawing
There is an inequality between the two amounts.	

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

student become the teacher.

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

Magic Squares

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.

Magic Card Squares

A Magic Square is an arrangement of single digits in such a way that the sums of each horizontal, vertical and diagonal lines equal the same number. Magic squares can add up to 12, 15, 18, 21, or 24.

If the Magic Square is to = 12, you will need the following cards: joker (= 0), Ace (= 1), 2, 3, 4, 5, 6, 7, and 8

If the Magic Square is to = 15, you will need Ace (= 1), 2, 3, 4, 5, 6, 7, 8, and 9

If the Magic Square is to = 18 you will need a 2, 3, 4, 5, 6, 7, 8, 9, and 10

If the Magic Square is to = 21, you will need a 3, 4, 5, 6, 7, 8, 9, 10, and Jack (=11)

If the Magic Square is to = 24, you will need a 4, 5, 6, 7, 8, 9, 10, Jack (=11), and a Queen (=12)

Magic Squares

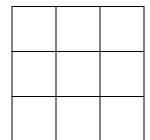
Directions:

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 deck of cards, a white board and pen/crayon.
- 3. Pair makes a 3 x 3 Magic Square on his/her white board.



- 4. Pair then selects whether they will create a Magic Square equal to 12, 15, 18, 21, and 24. Pair then selects the playing cards needed.
- 5. Pair then works together to create the Magic Square.

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. (Aha!)



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Magic Squares 2
Focus:	Problem Solving

Materials:

White boards Decks of cards

Crayolas Vocabulary Notebooks

Socks

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")

Problem of the Day

Write 5 different 3 digit numbers using the 5 numbers below. Write them in order from smallest to largest.

3, 6, 8, 2, 4

Fact Practice

Addition War

- Divide students into pairs. Give each pair a deck of cards without face cards and jokers.
- Shuffle the deck and divide the cards evenly between the two players.
- On go, the players turn over the cards at the same time.
- Students add the 2 numbers that have been turned up.
- First person to give the answer either wins the cards because the answer is correct, or has to turn over 2 cards because he/she gave the wrong answer.
- At the end of round, students may reshuffle the pile of cards that they have.
- Play can continue until one player has all cards or time has called.

*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.



Math Vocabulary

Word for Today: digit

Description: The term digit refers to the symbols used to make numerals. There are ten digits, 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9 that we use to create everyday numbers. For example, the numeral 678 is made up of three digits, a 6, a 7, and an 8.

Create an entry in your Vocabulary Notebook for the term "digit".

Vocabulary Notebook Sample:

New Word	My Description
digit	these are the digits: 0, 1, 2, 3, 4, 5, 6, 7,8, and 9
Personal Connection	Drawing
How many digits are in this numeral?	a four digit number:
3,785	3, 589

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

Magic Card Squares

A Magic Square is an arrangement of single digits in such a way that the sums of each horizontal, vertical and diagonal lines equal the same number. Magic squares can add up to 12, 15, 18, 21, or 24.

If the Magic Square is to = 12, you will need the following cards: joker (= 0), Ace (= 1), 2, 3, 4, 5, 6, 7, and 8

If the Magic Square is to = 15, you will need Ace (= 1), 2, 3, 4, 5, 6, 7, 8, and 9

If the Magic Square is to = 18 you will need a 2, 3, 4, 5, 6, 7, 8, 9, and 10

If the Magic Square is to = 21, you will need a 3, 4, 5, 6, 7, 8, 9, 10, and Jack (=11)

If the Magic Square is to = 24, you will need a 4, 5, 6, 7, 8, 9, 10, Jack (=11), and a Queen (=12)

Magic Squares

Directions:.

- 1. Divide students into pairs
- 2. Give each pair a deck of cards, a white board and pen/crayon.
- 3. Pair makes a 3 x 3 Magic Square on his/her white board.

4. Pair then selects whether they will create a Magic Square equal to 12, 15, 18, 21, and 24. Pair then selects the playing cards needed.

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. Pair then works together to create the Magic Square.

Following are the guidelines for creating a Magic Square. These are for you NOT the students. After students have creating several Magic Square, have them begin to look for and discover the rules.

Rules for Creating a Magic Square:

Divide the sum of the Magic Square by 3 to find the center number $(15 \div 3 = 5)$ 5 is placed in the center.

Add 1 to the center square and the write the sum in the top right corner. Subtract 1 from the center and write the difference in the bottom left corner.

Add 2 to the center square and write the sum to the right of the center square. Subtract 2 from the center square and write the difference to the left of the center square.

Add 3 to the center square and write the sum in the top left corner. Subtract 3 from the center square and write the difference in the bottom right corner.

Add 4 to the center square and write the sum directly under the center. Subtract 4 from the center number and write the difference directly above the center.

8	1	6
3	5	7
4	9	2

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" player getting ready to play this game so he/she could get all the blocks are completed.

- 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:	3 rd Grade
Lesson Title:	Which Way?
Focus:	Multiplication

Materials:

White boards
Crayolas
Deck of Cards for each pair
Socks
Target (end of this lesson plan)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of multiplication.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

What do you know about multiplication? When would you use multiplication?

How can you tell that you are on the right track for solving a multiplication problem?

How would you check an answer to a multiplication problem to be sure you are correct

Conte	nt (the	"Meat"
 	_	

Problem of the Day

If the problem is 768 + 427, and your task was to estimate an answer, how would you do that? Please explain.

Fact Practice

Target

- 1. Divide students into trios.
- 2. Each trio needs a deck of cards without face cards and jokers.
- 3. Place the cards face up in a TicTac Toe Grid.
- 4. Turn up a 10th card which will be to the side and becomes the target number (aces count as 1).
- 5. Each player makes an equation with some or all of the numbers in the grid to equal the target number. Students may add or subtract.
- 6. Each card may be used only one time in the equation.
- 7. As the cards are being picked up, the player must say the equation aloud—for example if the target card is 10, then I could say 6 + 4 = 10, and pick up the 6 and 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



4.

- 8. After one player finishes his/her turn, then the cards taken are replaced by cards from the remaining deck.
- 9. Player with the most cards at the end of the game win.

student become the teacher.

Math Vocabulary

Word for today: factors

Description: The term factor refers to the two numbers that you multiply together to come up with a product in a multiplication problem. For example in the problem $3 \times 4 = 12$, the factors are 4 and 4, the product is 12. There are other factors of 12. For example:

 $1 \times 12 = 12$ (so 1 and 12 are factors)

 $2 \times 6 = 12$ (so 2 and 6 are factors)

If we were to look at all of the POSSIBLE factors of 12 we would need to list: 1, 2, 3, 4, 6, and 12.

Students should complete the Vocabulary Notebook for the two connected terms: factor and product

Vocabulary Notebook Sample:

New Word	My Description
factors	The numbers you multiply together in a multiplication problem
Personal Connection	Drawing
If I have 4 groups of 5 and I multiply to find out how many I have altogether, the 4 and the 5 are factors.	2 x 3 = 6 Factor

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 Which Way?

Place value is an important concept for students in the third grade to understand. We only have ten numerals: 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9. It is the arrangement of these numerals that determines the value of the number. In this activity, students will work to create the largest possible product by rearranging the numerals.

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.

Which Way?

Directions:

- 1. Divide students into pairs.
- 2. Give each pair a deck of cards, a white board, and pen/crayons.
- 3. Students prepare the deck by removing tens, face cards, and jokers.
- 4. Pair shuffles the cards and deals three cards to each player and stacks the remaining cards face-down in a pile.
- 5. Each player uses the three cards to create one 2 digit number and one single digit number.
- 6. Player then multiplies the numbers together.
- 7. Player with the greatest product gets one point.
- 8. When cards are used they are placed in a discard pile.



9.	First player who gets 8 points, wins.	

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:	3 rd Grade
Lesson Title:	Which Way?
Focus:	Multiplication

Materials:			
White boards	Vocabulary Notebooks	Materials from yesterday	
Crayolas	12-sided dice for each pair		
Socks	Number Hunt Work Sheet		

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operation of multiplication.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out which operation to use to solve a mathematics problem?

How can you tell that you are on the right track for solving a multiplication problem?

What do you know about multiplication and when would you use this operation?

Content (the "Meat")	
Problem of the Day	*Activity → Teachable Moment(s) throughout
Write at east 5 different 3 digit numbers using the 5 numbers below. Write them in order from the smallest to the largest.	During the lesson check in with students repeatedly.
7, 9, 1, 4, 3	Check in about what is happening and what they are thinking.
Fact Practice	Take advantage of any teachable moments.
Number Hunt 1. Divide students into pairs. 2. Each pair needs a Number Hunt sheet (attached to this lesson plans). 3. Player rolls two, 12-sided dice. 4. Player adds or subtracts the two numbers. 5. If the number is not yet covered, then player may cover the number.	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. Next player repeats steps 1-3.7. Winner is determined by who has the most numbers covered.	When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



Math Vocabulary

Word for Today: product

Description: The term product refers to the answer in a multiplication problem. The factors are the two numbers that you would multiply together and the product is the answer. For example in the problem $6 \times 7 = 42$, the factors are 6 and 7, the product is 42. Identify the factors and the products in each of the problems below:

 $3 \times 9 = 27$

 $9 \times 8 = 72$

 $9 \times 5 = 45$

 $7 \times 2 = 14$

Create an entry in your Vocabulary Notebook for the word product.

Vocabulary Notebook Sample:

New Word	My Description
product	Answer in a multiplication problem
Personal Connection	Drawing
I know the product of 6 x 7. It is 42.	Multiplication: 6 × 3 = 18 Factor (or Multiplier) (or Multiplicand)

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.

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

Which Way?

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.

Which Way?

Place value is an important concept for students in the third grade to understand. We only have ten numerals: 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9. It is the arrangement of these numerals that determines the value of the number. In this activity, students will work to create the largest possible product by rearranging the numerals.

Which Way?

Directions:

- 1. Divide students into pairs.
- 2. Give each pair a deck of cards, a white board, and pen/crayons.
- 3. Students prepare the deck by removing tens, face cards, and jokers.
- 4. Pair shuffles the cards and deals three cards to each player and stacks the remaining cards face down in a pile.
- 5. Each player uses the three cards to create one 2 digit number and one single digit number.
- 6. Player then multiplies the numbers together.
- 7. Player with the greatest product gets one point.

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.



8. When cards are used they are placed in a discard pile.9. First player who gets 8 points, wins.

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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.



Number Hunt

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

Number Hunt

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



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Divide
Focus:	Division

Materials:

White boards Vocabulary Notebooks
Crayolas Double 9 Dominoes

Socks

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out which operation to use to solve a mathematics problem?

What are you doing when you divide? Do you start with a total or a portion?

What are the basic operations that you need to utilize during division?

Content (the "Meat")

Problem of the Day

You look in your wallet. You have a 5-dollar bill, 4 one-dollar bills, 3 quarters, 4 dimes, 3 nickels, and 9 pennies. How much money do you have?

Fact Practice

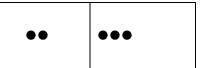
Spots and Dots

There is a master of Double 9 Dominos attached to this lesson plan. You will need 1 full set for each pair of students in your class. It is recommended that you duplicate on card stock and if possible, laminate for use again in the future.

Players sit across from each other.

Dominoes are between them, face (or spots) down.

Each student draws a domino and writes the addition problem on their white board, adding the numbers represented by the spots Example: Domino drawn is



Addition: 2 + 3 = 5

Math Vocabulary

*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.

It is important to review



Math term: remainder

Description: The term "remainder" refers to the amount left over when you divide things equally and there are not enough things left to distribute evenly. For example is you have 25 cookies and 5 people, you could give each person 5 cookies and you would have one left over or one remaining. The 1 would be labeled the "remainder". A remainder can't be equal to or larger than the divisor. If that were the case, everyone would have an equal opportunity to have one more.

Have student review his/her Vocabulary Notebook for the term "remainder" with a peer. Any corrections that need to be made should be made.

Vocabulary Notebook Sample:

New Word	My Description
remainder	Amount left over when you have divided a total equally and don't have enough to give everyone 1 more
Personal Connection	Drawing
After we divided the cookies, we had a remainder of 2.	$19 \div 5 = 3 R 4 = 3 \frac{4}{5}$ Remainder

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

Divide!

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.

Dividing is the inverse of multiplication. Students need to practice division and understand that numbers can be evenly divided, perhaps by more than one number. For example, although $9 \times 8 = 72$, the product 72 can be divided evenly by 2, 3, 4, and 6 (other possibilities as well). This activity will give students an opportunity to practice division.

Divide!

Directions:

- 1. Divide students into pairs.
- 2. Give each pair a deck of cards, a white board, and pen/crayons.
- 3. Pair prepares the deck by removing jokers and face cards.
- 4. Shuffle the cards and deal 3 cards to each player and places the remaining cards in a facedown pile.
- 5. Player turns two cards over and multiplies them together. **Example:** cards turned over are a 5 and a 8. Multiplied together the product is 4.
- 6. Players then looked at their cards and determine if they have a card that will divide the product evenly.
- 7. Player gets one point for each division problem he/she can 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.



- 8. Example: Player has a 2, 3, and 10. The player can divide 40 by both 2 and 10 evenly. He/she will then get 2 points.
- 9. Once play has finished, all cards are discarded and play begins again (deal 3 cards, turn 2 over and multiply).
- 10. Game is over when all cards have been played.

	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"?

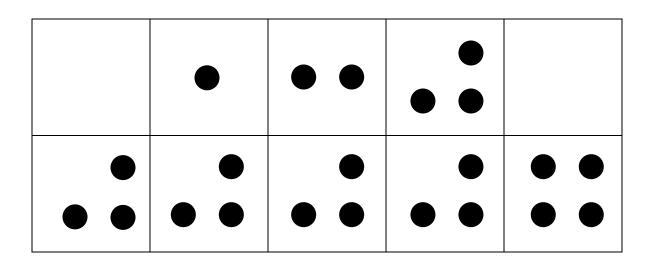
What advice would you give to a "new" student getting ready to do this activity?

- 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.



Double 9 Dominoes

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Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Quotient and Divide
Focus:	Division

Materials:

White boards Vocabulary Notebooks

Crayolas deck of cards, no face cards or jokers for math fact practice

Socks

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving a division problem?

What are the basic operations that you need to utilize during division?

Content (the "Meat")

Problem of the Day

Look at the table below. Were more cookies sold on Tuesday and Wednesday or on Wednesday and Thursday? How do you know?

Day	\$ of Cookies
Monday	27
Tuesday	73
Wednesday	56
Thursday	71
Friday	72

Fact Practice

Draw!

- 1. Divide students into pairs and give each pair a deck of cards.
- 2. Remove the face cards and jokers from the deck of cards.
- 3. Shuffle the deck.
- 4. Decide who will go first.
- 5. First player draws two cards.
- 6. Student adds or subtracts the cards.

*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.



- Student writes his/her problem on the white board, writing a complete number sentence.
- 8. Students take turns drawing cards and creating problems.

Math Vocabulary

Word for Today: quotient

Description: The term "quotient" refers to the answer you get when you divide. For example, a dividend \div divisor = quotient. 12 \div 3 = 4. In this case the quotient is 4. (The 12 is the dividend and the 3 is the divisor).

Have students look at the problems below and identify the quotient in each:

 $9 \div 3 = 3$

 $16 \div 4 = 4$

 $49 \div 7 = 7$

 $32 \div 8 = 4$

Have student complete his/her Vocabulary Notebook for the term "quotient".

Vocabulary Notebook Sample:

New Word	My Description
quotient	The answer in a division problem
Personal Connection	Drawing 12 divided by 3
The problem 28 ÷ 7 = 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 Divide!

Dividing is the inverse of multiplication. Students need to practice division and understand that numbers can be evenly divided, perhaps by more than one number. For example, although 9 x 8 = 72, the product 72 can be divided evenly by 2, 3, 4, and 6 (other possibilities as well). This activity will give students an opportunity to practice division.

Divide!

Directions:

- 1. Divide students into pairs.
- 2. Give each pair a deck of cards, a white board, and a pen/crayons.
- 3. Pair prepares the deck by removing jokers and face cards.
- 4. Shuffle the cards and deal 3 cards to each player and places the remaining cards in a facedown pile.
- 5. Player turns two cards over and multiplies them together. **Example:** cards turned over are a 5 and a 8. Multiplied together the product is 4.
- 6. Players then looked at their cards and determine if they have a card that will divide the product evenly.
- Player gets one point for each division problem he/she can 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.



- 8. Example: Player has a 2, 3, and 10. The player can divide 40 by both 2 and 10 evenly. He/she will then get 2 points.
- 9. Once play has finished, all cards are discarded and play begins again (deal 3 cards, turn 2 over and multiply).
- 10. Game is over when all cards have been played.

		Closin

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:	3 rd Grade
Lesson Title:	Checkers
Focus:	Division

Materials:

White boards Vocabulary Notebooks

Crayolas Deck of cards

Socks Checker board at end of lesson plan, tokens for checkers

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")

Problem of the Day

What is the sum of this addition problem: 387 + 694? Tell how you did this problem and how you know you have the correct answer.

Fact Practice Bump It Up! Add A Zero

- 1. Divide students into pairs.
- 2. Give each pair a white board and a deck of cards (without face cards, jokers, or 10s).
- 3. The object of this fact practice is to sum numbers until you reach 1,000.
- 4. Student draws 2 cards, adds the value of the cards together, multiplies by ten and writes the total on the sheet.
- 5. It is not the other person's turn to do the same.
- 6. When play returns to the first player, the process is repeated, although this time, the totals are added together.
- 7. First person to 1,000 wins.
- 8. Example: Player draws a 7 and a 4. Total is 11. Multiply by 10 (add the zero) equals 110. Next turn, player draws a 3 and a 2 which totals 5. Multiply by 10 and I now add 50 to 110 for a total of 160.

*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.



Math Vocabulary

Word for Today: estimation

Description: The term "estimation" refers to making a reasonable guess as to how many of something there are. In other words, it is a close guess of the actual value, usually with some thought or calculation involved. If you wanted to estimate how many beans there were in 10 handfuls of jelly beans, you could take one handful, count the jelly beans that were in that handful, and then multiply by 10 so you can estimate how many jelly beans there would be in 10 handfuls.

Create the entry for the word "estimation" in the Vocabulary Notebook with a peer.

Vocabulary Notebook Sample:

New Word	My Description
estimation	making an educated guess about how much
Personal Connection	Drawing
In his estimation there are 100 jelly beans in the jar.	

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

Checkers

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.

Checkers

Practice of multiplication and division facts is important until students have them memorized to automaticity. This activity takes the game Checkers and gives students an opportunity to practice math facts while playing Checkers. In order to move to a space, student must provide the product or quotient for the math fact in that square.

Checkers

Directions:

- 1. Divide students into pairs.
- 2. Give each pair a Checkers Board (attached to this lesson plan), red and black checkers (can be scraps of paper), a white board and pen/crayons.
- 3. Pair tapes two pieces of the Checkers Board together and puts his/her markers on the board.
- 4. Player 1 moves his/her checker into a space, saying the product or quotient in order to take that space.
- 5. Player 2 then takes his/her turn.
- 6. Play continues just like Checkers.

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. (Aha!)



This side of the checker board is for Player A. This half of the checker board will be joined to the half of the checker board for Player B. They join on the opposite side. The top row of this side that begins with 84 ÷ 7 and ends with 48 ÷ 4, joins with Player B so that 48÷4 joins 81 ÷ 9. Player A will place the checkers on the shaded squares in the 3 rows closest to this direction.

84 ÷ 7 =	54 ÷ 6 =	36 ÷ 6 =	48 ÷ 4 =
6 ÷ 3 =	121 ÷ 11 =	54 ÷ 9 =	35 ÷ 7 =
24 ÷ 12 =	25 ÷ 5 =	100 ÷ 10 =	72 ÷ 6 =
21 ÷ 3 =	56 ÷ 8 =	36 ÷ 9 =	28 ÷ 4 =
15 ÷ 5 =	60 ÷ 12 =	108 ÷ 9 =	10 ÷ 2 =
20 ÷ 4 =	9 ÷ 3 =	63 ÷ 9 =	110 ÷ 11 =
24 ÷ 6 =	88 ÷ 11 =	132 ÷ 12 =	18 ÷ 9 =
14 ÷ 7 =	72÷ 8 =	18 ÷ 3 =	49 ÷ 7 =



81 ÷ 9 =	48 ÷ 8 =	45 ÷ 5 =	48 ÷ 6 =
63 ÷ 7 =	108 ÷ 12 =	144 ÷ 12 =	72 ÷ 9 =
12 ÷ 4 =	40 ÷ 5 =	70 ÷ 10 =	16 ÷ 2 =
132 ÷ 11 =	8 ÷ 4 =	72 ÷ 12 =	120 ÷ 12 =
30 ÷ 5 =	77 ÷ 7 =	56 ÷ 7 =	24 ÷ 3 =
32 ÷ 4 =	12 ÷ 6 =	16 ÷ 4 =	27 ÷ 3 =
20 ÷ 5 =	36 ÷ 3 =	28 ÷ 7 =	42 ÷ 6 =
32 ÷ 8 =	64÷ 8 =	18 ÷ 6 =	96 ÷ 8 =

This side of the checker board is for Player B. This half of the checker board will be joined to the half of the checker board for Player A. They join on the opposite side. The top row of this side that begins with 81 ÷ 9 and ends with 48 ÷ 6, joins with Player A so that 81 ÷ 9 joins 48÷4. Player B will place the checkers on the unshaded squares in the 3 rows closed to these directions.



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Checkers
Focus:	Division

Materials:

White boards Vocabulary Notebooks

Crayolas dice (6-sided and 12-sided for each pair)

Socks Checker Board at the end of the game, tokens to use as checkers

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")

Problem of the Day

Copy the shape below. Draw lines of symmetry on each one. Remember that some shapes may have more than one line of symmetry.







Fact Practice Fact Family

A Fact Family is 3 numbers which have a relationship in addition and subtraction. For example, the number 9, 4, and 13 have a particular relationship in math. This family has four members:

9 + 4 = 13

4 + 9 = 13

13 - 9 = 4

13 - 4 = 9

Students should roll 2 dice and create a Fact Family by writing the members of the family on the white board. Student should roll a total of 5 times, creating 5 Fact Families.

*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.



Math Vocabulary

Word for Today: rounding

Description: The term "rounding" refers to process used in estimation when you ask yourself which number another number is "closest" to. For example, if you were just thinking about the number "9", is that number closest to 0 or 10. The answer, of course would be that it is closest to 10. However, if I asked you if the number "9" is closest to 0 or 100, the answer would be that it is closer to 0. So when you are rounding a number, you have to know what you are comparing the number to. The general rule is that you think about what you are comparing a number to, you look at the number one place to the right, and if the number in that spot is 5, 6, 7, 8, or 9 you round up, and if the number is 1, 2, 3, or 4, you round down.

If the question is this: Is 278 closer to 200 or 300, you would take a look at the number to the right of hundreds (in this case 7), and you would know to round up to 300, and that 278 is closer to 300 that it is to 200.

Have student create and entry in his/her Vocabulary Notebook for the term "rounding". Any corrections that need to be made should be made.

Vocabulary Notebook Sample:

New Word	My Description
rounding	5 or higher round up, 4 or lower, leave alone
Personal Connection	Drawing
Do you know how to round the number 386 to the hundred's place?	386 rounded is 400

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 Checkers

Practice of multiplication and division facts is important until students have them memorized to automaticity. This activity takes the game Checkers and gives students an opportunity to practice math facts while playing Checkers. In order to move to a space, student must provide the product or quotient for the math fact in that square.

Checkers

Directions:

- 1. Divide students into pairs.
- 2. Give each pair a Checkers Board (attached to this lesson plan), red and black checkers (can be scraps of paper), a white board and pen/crayons.
- 3. Pair tapes two pieces of the Checkers Board together and puts his/her markers on the board.
- 4. Player 1 moves his/her checker into a space, saying the product or quotient in order to take that space.
- 5. Player 2 then takes his/her turn.
- 6. Play continues just like Checkers.

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. (Aha!)



This side of the checker board is for Player A. This half of the checker board will be joined to the half of the checker board for Player B. They join on the opposite side. The top row of this side that begins with 84 ÷ 7 and ends with 48 ÷ 4, joins with Player B so that 48÷4 joins 81 ÷ 9. Player A will place the checkers on the shaded squares in the 3 rows closest to this direction.

84 ÷ 7 =	54 ÷ 6 =	36 ÷ 6 =	48 ÷ 4 =
6 ÷ 3 =	121 ÷ 11 =	54 ÷ 9 =	35 ÷ 7 =
24 ÷ 12 =	25 ÷ 5 =	100 ÷ 10 =	72 ÷ 6 =
21 ÷ 3 =	56 ÷ 8 =	36 ÷ 9 =	28 ÷ 4 =
15 ÷ 5 =	60 ÷ 12 =	108 ÷ 9 =	10 ÷ 2 =
20 ÷ 4 =	9 ÷ 3 =	63 ÷ 9 =	110 ÷ 11 =
24 ÷ 6 =	88 ÷ 11 =	132 ÷ 12 =	18 ÷ 9 =
14 ÷ 7 =	72÷ 8 =	18 ÷ 3 =	49 ÷ 7 =



81 ÷ 9 =	48 ÷ 8 =	45 ÷ 5 =	48 ÷ 6 =
63 ÷ 7 =	108 ÷ 12 =	144 ÷ 12 =	72 ÷ 9 =
12 ÷ 4 =	40 ÷ 5 =	70 ÷ 10 =	16 ÷ 2 =
132 ÷ 11 =	8 ÷ 4 =	72 ÷ 12 =	120 ÷ 12 =
30 ÷ 5 =	77 ÷ 7 =	56 ÷ 7 =	24 ÷ 3 =
32 ÷ 4 =	12 ÷ 6 =	16 ÷ 4 =	27 ÷ 3 =
20 ÷ 5 =	36 ÷ 3 =	28 ÷ 7 =	42 ÷ 6 =
32 ÷ 8 =	64÷ 8 =	18 ÷ 6 =	96 ÷ 8 =

This side of the checker board is for Player B. This half of the checker board will be joined to the half of the checker board for Player A. They join on the opposite side. The top row of this side that begins with 81 ÷ 9 and ends with 48 ÷ 6, joins with Player A so that 81 ÷ 9 joins 48÷4. Player B will place the checkers on the unshaded squares in the 3 rows closed to these directions.



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Student Activity Choice
Focus:	Review

Materials:

Game Boards and materials from this week.

Prizes (these can be time, a leadership role, opportunities to be the "teacher")

Opening

State the objective

Today we are going to have fun playing a game. Students will be able to choose from the games learned in the past two weeks.

Content (the "Meat")

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.

- Magic Squares
- Multiplication and Division Time
- Which Way?
- Divide!
- Checkers

Review

Say:

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

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:	3 rd Grade
Lesson Title:	Decimals
Focus:	Decimals

Materials:

White boards Decks of cards

Crayolas Vocabulary Notebooks

Socks Activity at the end of this lesson plan

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. Think about a dollar. A dollar is worth 100 pennies. We write dollars by using a dollar sign, \$, writing the number of whole dollar we have, \$3 and then placing a decimal point after the number of whole dollars to talk about the cents we have as well, \$3.47. In this example we have 3 dollars and 47 cents. The 47 cents could be all pennies, 9 nickels and 2 pennies, 1 quarter, 2 dimes, and 2 pennies, and so on. But in order for us to be able to talk about it consistently without having to describe each coin, we say 47 cents, or 47 of the 100 cents it would take to make another whole dollar. Share some of the experiences you have had with money—your allowance, paying for something, and how you knew how much money you had or had spent. Practice writing several different dollar and cents amounts.

Content (the "Meat")

Problem of the Day

John has been rolling a die. He has written down each number that he rolls. Make a tally chart using the numbers.

Rolls: 2, 1, 2, 4, 4, 6, 3,6,5, 5, 3, 1,4, 1, 5, 5, 5,

Fact Practice

Addition War

- Divide students into pairs. Give each pair a deck of cards without face cards and jokers.
- Shuffle the deck and divide the cards evenly between the two players
- On go, the players turn over the cards at the same time
- Students add the 2 numbers that have been turned up
- First person to give the answer either wins the cards because the answer is

*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, or has to turn over 2 cards because he/she gave the wrong answer
- At the end of round, students may reshuffle the pile of cards that they have
- Play can continue until one player has all cards or time has called

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

Math Vocabulary

Word for Today: decimal

Description: The term decimal is used to describe the period or the dot that is put in a

reate an entry in your vocabulary notebook for the term "decimal".

Vocabulary Notebook Sample:

number to show where the whole number ends and the fractional part of the number
begins. A decimal is written like a period, but when we are reading a number with a
decimal in it, we say the word "and" when we come to the decimal. That and signifies that
everything said before refers to whole thinks and everything that is said after is going to be
a part of a whole. The two most commonly used parts are 10 parts or 100 parts, which we
refer to as tenths or hundredths. Give several examples of whole numbers with decimal
poits and either 10 th or 100 th after it.
Create an entry in your Vocabulary Notebook for the term "decimal"

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 Decimals

Decimals

A decimal is a "dot" or a period that separates a whole number from a portion of a number. Unlike fractions, decimals are written in tenths and hundredths. That means that the denominator for tenths is 10 and the denominator for hundredths is 100. If you are writing a whole number, such as 345, the three represents 3 hundred, the 4 represents 40 and the 5 represents 5 (ones). The decimal point would bet placed to the RIGHT of the ones place. In this number, 345.23, the 3, 4, and 5 stay the same, when you see the decimal you say the word "and". The 2 represents 2 tenths and the 3 represents hundredths. This number would be read: 3 hundred forty-five AND 23 hundredths. In money this would look like. \$345.23 and we would say 345 dollars and 23 cents. Cents refers to the number of the 100 pennies you would need for a dollar.

We are going to work on identifying, reading and writing decimals.

Decimals Directions: 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



- 1. Divide students into pairs
- 2. Give each pair a white board and a set of Decimal Cards.
- 3. Player 1 draws a card and selects an answer. If correct, he/she keeps the card. If not, the card is discarded.
- 4. Player 2 repeats
- 5. Game is over when all cards have been claimed.

	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" player getting ready to play this game so he/she could get all the blocks are completed.

Reflection (Confirm, Tweak, Aha!)

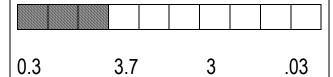
- 1. Ask students to think about what they did today in math.
- 2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new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



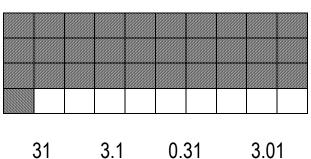


3rd Grade Decimals

What decimal matches the shaded part of the rectangle?

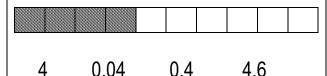


What decimal matches the shaded part of these rectangles?

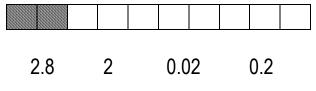


3.1 0.31 3.01

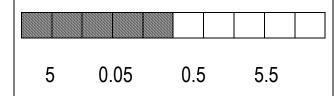
What decimal matches the shaded part of this rectangle?



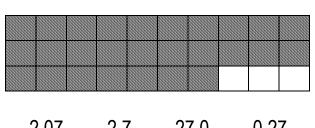
What decimal matches the shaded part of this rectangle?



What decimal matches the shaded part of this rectangle?



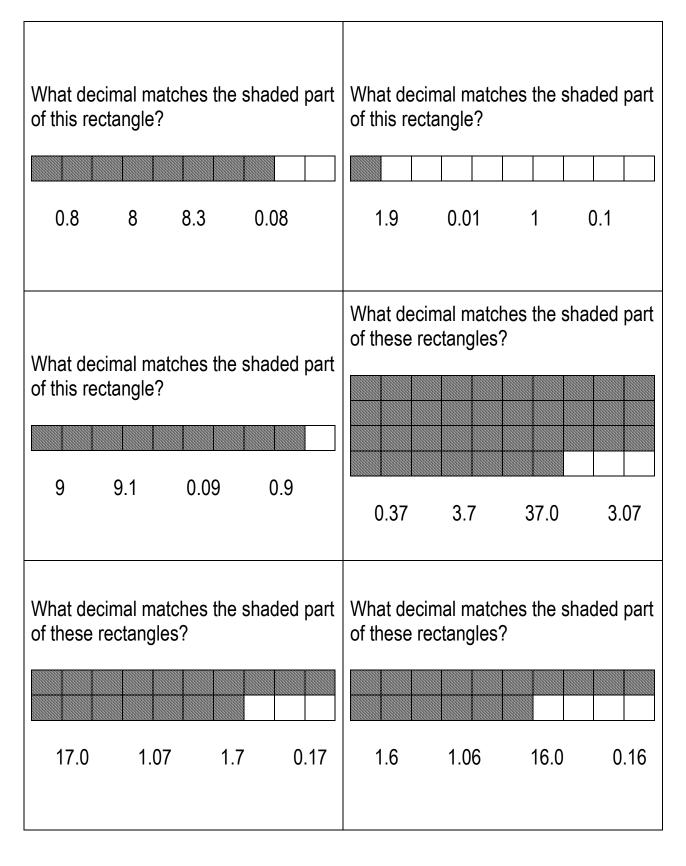
Which decimal matches the shaded part of these rectangles?



2.07 2.7 27.0 0.27

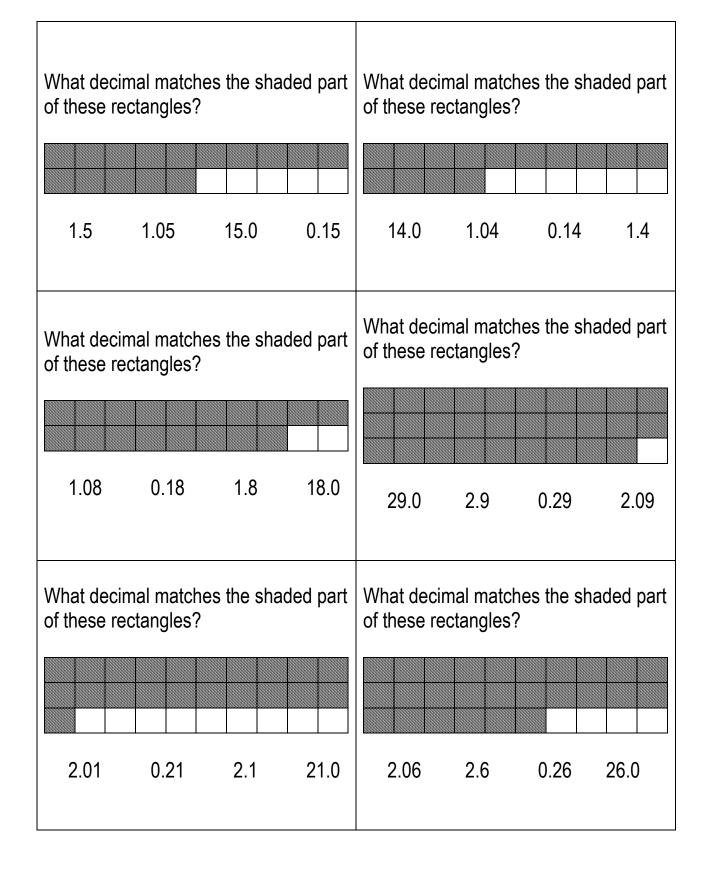














Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Decimals 2
Focus:	Decimals

Materials:

White boards Decks of cards

Crayolas Vocabulary Notebooks

Socks Activity at the end of this lesson plan

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

Share what you understand about decimals. On a white board, show how you would write 38 cents using a dollar sign and a decimal point. Try writing eight dollars and forty-one cents; 6 dollars and thirty-seven cents; and ten dollars and eight-eight cents. Compare and discuss what the meaning of the numbers to the right of the decimals point is.

Content (the "Meat")

Problem of the Day

Mark, Julie, Kyle, Bonnie, and Jake are standing in line to ride the merry-go-round. Mark is second in line and Kyle is third. Jake is behind Kyle and in front of Bonnie. Who is first and how do you know?

Fact Practice

Foreheader

- 1. Divide students into trios. Give each trio a deck of cards without face cards and jokers.
- 2. Shuffle the deck and give all of the cards to the referee who will be "judging" the contest
- 3. On go, players are each handed a card by the referee and **WITHOUT** looking, put the card face out on his/her forehead
- 4. The referee adds the two numbers together and states the answer
- 5. Each player looks at the other person's exposed number and names his/her own number
- **6.** Person who wins (accuracy and time), collects both cards
- 7. Play continues until all cards are gone.
- **8.** Players can repeat play (if there is another time) with each other so each has an opportunity to be both a player and referee

*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"





Math Vocabulary

Word for today: tenths

Description: The term, tenths, refers to 1 of 10 equal parts. You can have 1, 2, 3, 4, 5, 6, 7, 8, or 9 tenths and have less than one whole. On the tenth, tenth, you would have 1. Think in terms of needing 10 dimes to equal one dollar. The tenths place when you are writing a number is the first place after the decimal point. 2.5 would be said, two and 5 tenths, remember that the decimal point is said "and" and since the number 5 is in the tenths place and no other number comes after, you say the name of the number and then the word tenths to indicate that this is the last place a number is in. Practice several examples.

Create an entry for the word "tenths" in your Vocabulary Notebook.

Vocabulary Notebook Sample:

New Word My Description Hot dogs, mustard, catsup, drinks, ball picnic 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.



opportunity and have the student become the teacher

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 **Decimals**

Decimals

A decimal is a "dot" or a period that separates a whole number from a portion of a number. Unlike fractions, decimals are written in tenths and hundredths. That means that the denominator for tenths is 10 and the denominator for hundredths is 100. If you are writing a whole number, such as 345, the three represents 3 hundred, the 4 represents 40 and the 5 represents 5 (ones). The decimal point would bet placed to the RIGHT of the ones place. In this number, 345.23, the 3, 4, and 5 stay the same, when you see the decimal you say the word "and". The 2 represents 2 tenths and the 3 represents hundredths. This number would be read: 3 hundred forty-five AND 23 hundredths. In money this would look like, \$345.23 and we would say 345 dollars and 23 cents. Cents refers to the number of the 100 pennies you would need for a dollar.

We are going to work on identifying, reading and writing decimals.

Decimals

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 white board and a set of Decimal Cards.
- 3. Player 1 draws a card and selects an answer. If correct, he/she keeps the card. If not, the card is discarded.
- 4. Player 2 repeats
- 5. Game is over when all cards have been claimed.

	Closin

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!)

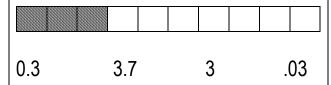
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- 3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- 4. Ask them to comment on something (if anything) they have learned today that was brand new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



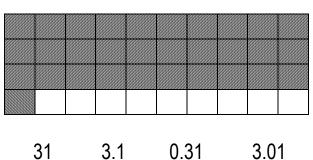


3rd Grade Decimals

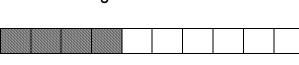
What decimal matches the shaded part of the rectangle?



What decimal matches the shaded part of these rectangles?

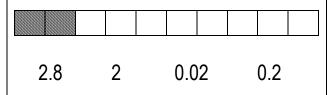


What decimal matches the shaded part of this rectangle?

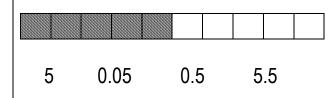


4 0.04 0.4 4.6

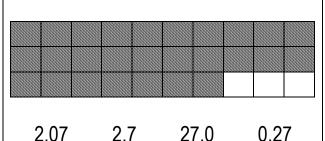
What decimal matches the shaded part of this rectangle?



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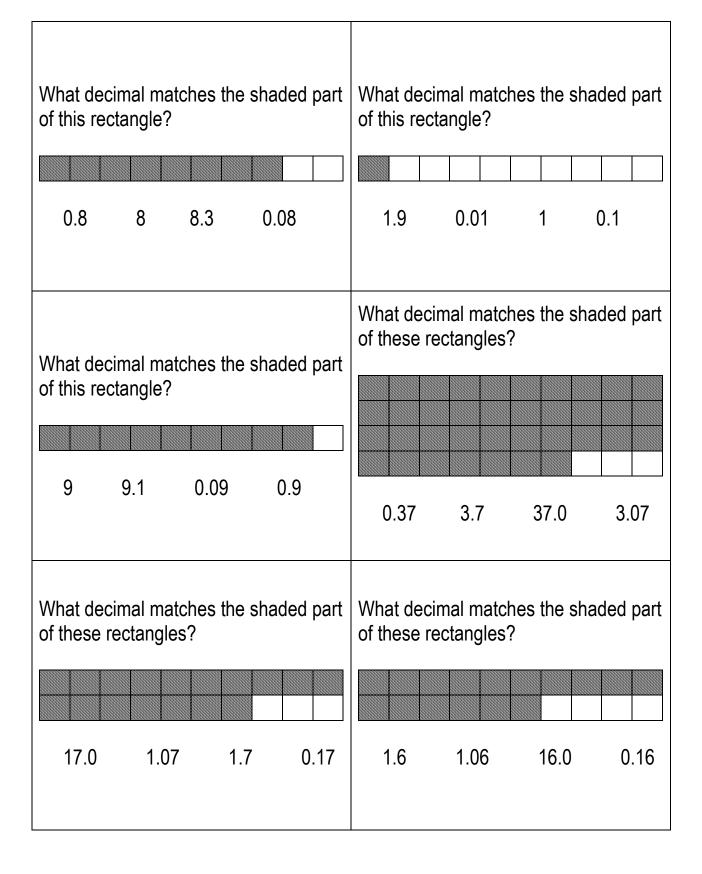


Which decimal matches the shaded part of these rectangles?



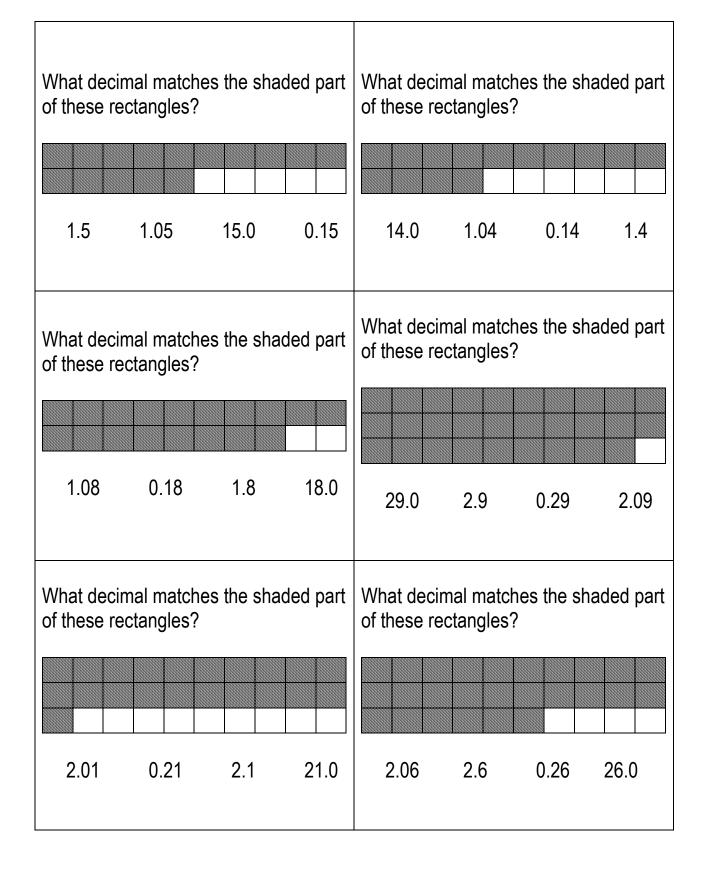














Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Hundredths
Focus:	Decimals

Materials:

White boards Vocabulary Notebooks Activity at end of this lesson plan

Crayolas Dice

Socks Cards(remove face cards, use the joker as a zero)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

Share what you understand about decimals. On a white board, show how you would write 38 cents using a dollar sign and a decimal point. Try writing eight dollars and forty-one cents; 6 dollars and thirty-seven cents; and ten dollars and eight-eight cents. Compare and discuss what the meaning of the numbers to the right of the decimals point is.

Content (the "Meat")

Problem of the Day

Linda is counting to 50 by 10s. Marnie is counting to 50 by 5s. Jorge is counting to 50 by 2s. What 5 numbers will all three of them say? How do you know?

Fact Practice

Spokes on a Wheel

- 1. Divide students into pairs
- 2. On a white board, student draws a small circle with 9 spokes coming out of it (should look like a bicycle tire)
- 3. Have students choose to put a 6, 7 or 8 in the center circle
- 4. Student rolls two dice and adds the pips (dots)
- 5. Taking this total, student writes a math problem on one of the spokes (eg. 7 is in the circle and students rolls a 3 and 5 which totals 8. The spoke equation would look like 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

When possible, engage



6. Process continues until all spokes have an equation

students in a "teach to learn" opportunity and have the student become the teacher

Math Vocabulary

Word for today: hundredths

Description: Hundredths is a term that we use to describe one of 100 equal parts much like there are 100 pennies in a dollar. Each penny is $\frac{1}{100}$ of a dollar. In a number that has a decimal point, if there is a number in two places to the right of that decimal, you would call that hundredths. 5.03 is said, five a 3 hundredths. 5.32 would be said, five and thirty-two hundredths. Since the 2 is in the hundredths place, the 3 and the 2 are said 32 and then given the "title" of hundredths.

Students complete the Vocabulary Notebook for the term "hundredths".

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 We take a picnic lunch and bark 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 Decimals

Hundredths Place

The first place after the decimal point is tenths. The second place after the decimal is hundredths. If you were thinking about money, it would be the number of pennies you would need of the 100 needed to make a dollar.

When reading a number with two digits after the decimal point, the number is read saying the two numbers together with the final word being hundredths. .26 is read 26 hundredths, .53 if read fifty-three hundredths, and .87 is read eighty-seven hundredths. If this number were written as a fraction it would be written: $\frac{26}{100}$, $\frac{53}{100}$, $\frac{87}{100}$

Today and tomorrow we are going to be looking at hundredths.

Hundredths

Directions:

- 1. Divide students into pairs
- 2. Give each pair a white board and a set of Hundredths Cards.
- 3. Player 1 draws a card and selects an answer. If correct, he/she keeps the card. If not,

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 card is discarded.	
4.	Player 2 repeats	
5.	Game is over when all cards have been claimed.	

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

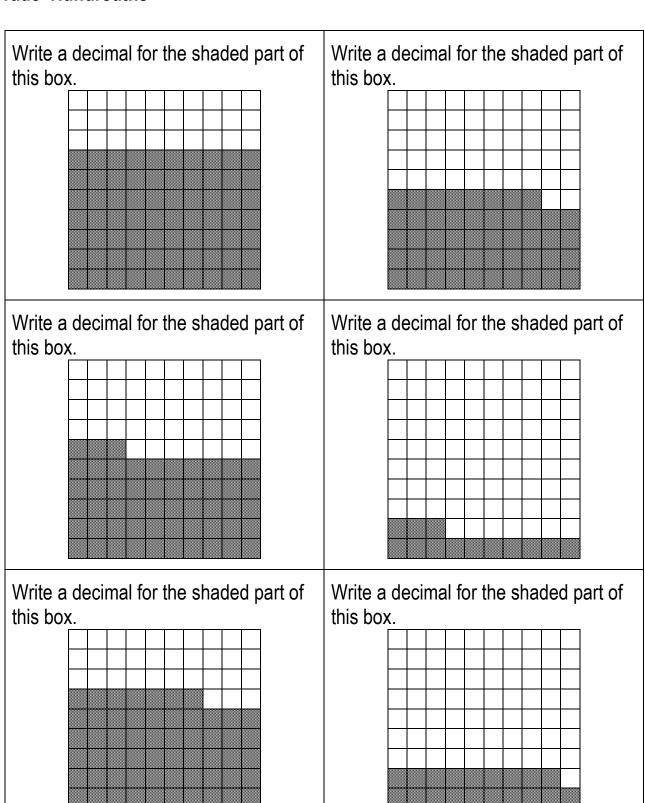
Reflection (Confirm, Tweak, Aha!)

- 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)

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

- 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

3rd Grade Hundredths





Write a decimal for the shaded part of Write a decimal for the shaded part of this box. this box. Write a decimal for the shaded part of Write a decimal for the shaded part of this box. this box. Write a decimal for the shaded part of Write a decimal for the shaded part of this box. this box.



Write a decimal for the shaded part of Write a decimal for the shaded part of this box. this box. Write a decimal for the shaded part of Write a decimal for the shaded part of this box. this box. Write a decimal for the shaded part of Write a decimal for the shaded part of this box. this box.

CONSULT 4 KIDS

Consult 4 Kids Lesson Plans

Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Hundredths 2
Focus:	Decimals

Materials:

White boards Vocabulary Notebooks

Crayolas dice

Socks Activity at the end of this lesson plan

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

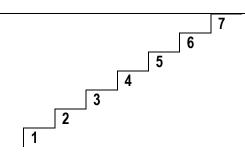
Share what you understand about decimals. On a white board, show how you would write 38 cents using a dollar sign and a decimal point. Try writing eight dollars and forty-one cents; 6 dollars and thirty-seven cents; and ten dollars and eight-eight cents. Compare and discuss what the meaning of the numbers to the right of the decimals point is. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat") **Problem of the Day** *Activity → Teachable Moment(s) throughout Look at the 5 numerals below. Write the largest number that you can. Then write the During the lesson check in smallest. Tell your neighbor how you know that you are correct. with students repeatedly. Check in about what is happening and what they are thinking. **Fact Practice** Take advantage of any Addition Ladder teachable moments 1. Give each student a white board (include marker or crayola) Stop the class and focus on a 2. Student should draw a ladder like the one below student's key learning or understanding. Ask open-9 ended questions to determine what the rest of





3. Have student roll 2 dice, total the pips and then add that number to each of the numbers in the ladder, writing the sum to the right of the number

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: hundredths

Description: The term hundredths was discussed yesterday. Ask students to give you examples of things that are in hundredths.

The 16 is the dividend.

Share yesterday's entry for the term "hundredth" with a peer. Make any corrections or changes that are necessary.

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 Decimals

Hundredths Place

The first place after the decimal point is tenths. The second place after the decimal is hundredths. If you were thinking about money, it would be the number of pennies you would need of the 100 needed to make a dollar.

When reading a number with two digits after the decimal point, the number is read saying the two numbers together with the final word being hundredths. .26 is read 26 hundredths, .53 if read fifty-three hundredths, and .87 is read eighty-seven hundredths. If this number were written as a fraction it would be written: $\frac{26}{100}$, $\frac{53}{100}$, $\frac{87}{100}$

Today and tomorrow we are going to be looking at hundredths.

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



Hundredths

Directions:

- 1. Divide students into pairs
- 2. Give each pair a white board and a set of Hundredths Cards.
- 3. Player 1 draws a card and selects an answer. If correct, he/she keeps the card. If not, the card is discarded.
- 4. Player 2 repeats
- 5. Game is over when all cards have been claimed.

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?

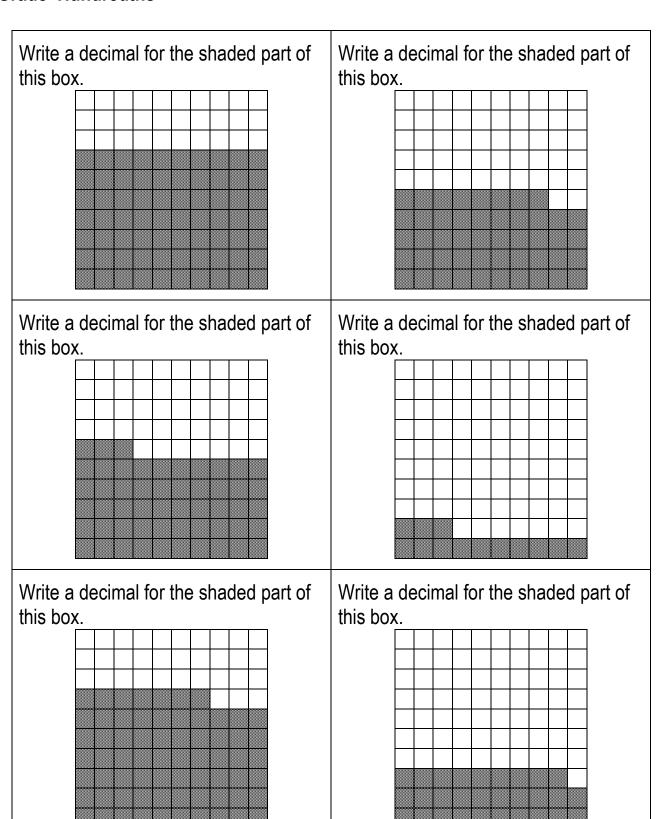
What opportunities might you have to do this same thing in the "real world"?

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

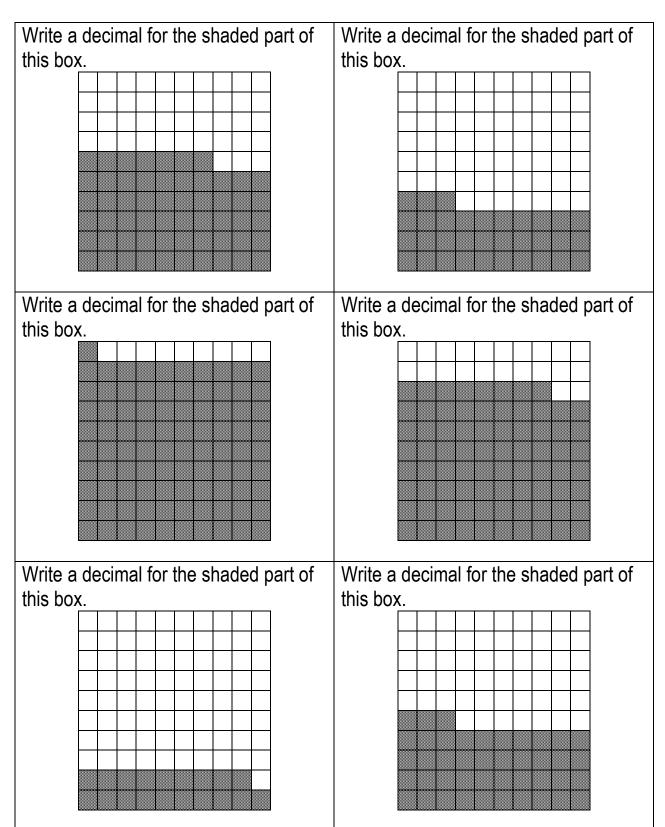
3rd Grade Hundredths





Write a decimal for the shaded part of Write a decimal for the shaded part of this box. this box. Write a decimal for the shaded part of Write a decimal for the shaded part of this box. this box. Write a decimal for the shaded part of Write a decimal for the shaded part of this box. this box.







Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Which Place?
Focus:	Decimals

Materials:

White boards Vocabulary Notebooks
Crayolas Deck of Cards for each pair

Socks Activity at the end of this lesson plan

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

Share what you understand about decimals. On a white board, show how you would write 38 cents using a dollar sign and a decimal point. Try writing eight dollars and forty-one cents; 6 dollars and thirty-seven cents; and ten dollars and eight-eight cents. Compare and discuss what the meaning of the numbers to the right of the decimals point is. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")		
Problem of the Day	*Activity → Teachable Moment(s) throughout	
Draw a picture that will demonstrate an even number of circles and an odd number of circles. Label each picture. Tell how you know that you are correct.	During the lesson check in with students repeatedly.	
Fact Practice Target	Check in about what is happening and what they are thinking.	
 Divide students into trios Each trio needs a deck of cards without face cards and jokers 	Take advantage of any teachable moments	
 3. Place the cards face up in a TicTac Toe Grid 4. Turn up a 10th card which will be to the side and becomes the target number (aces count as 1) 	Stop the class and focus on a student's key learning or understanding. Ask open-	
5. Each player makes an equation with some or all of the numbers in the grid to equal	ended questions to determine what the rest of	



- the target number. Students may add or subtract.
- 6. Each card may be used only one time in the equation
- 7. As the cards are being picked up, the player must say the equation aloud—for example if the target card is 10, then I could say 6 + 4 = 10, and pick up the 6 and the 4.
- 8. After one player finishes his/her turn, then the cards taken are replaced by cards from the remaining deck
- 9. Player with the most cards at the end of the game win

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: place value

Description: The term place value refers to the value of where the digit is in the number, such as units, tens, hundreds, or if you are talking about digits to the right of decimal point, tenths and hundredths. Right now we are looking at the place value to the right of the decimal point. Give several examples and have students identify whether this is tenths or hundredths. Students should complete the Vocabulary Notebook for the two connected terms: place 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 Decimals

Tenths and Hundredths Place Value

It is important that students be able to move easily between the place value of whole numbers (thousands hundreds, tens, and ones) and both tenths and hundredths which represent a portion of the whole.

In the activity today and tomorrow, students will be playing a game that has them determine the place value of an identified number.

Which Place? Directions:

- 1. Divide students into pairs
- 2. Give each pair a set of Which Place? Cards and a 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

CONSULT 4 KIDS

Consult 4 Kids Lesson Plans

- 3. Player one draws a Which Place? Card and determines which place value the underlined number represents.
- 4. Player places a token on the word on the game board that indicates the correct place
- 5. Player 2 repeats the process
- 6. If the answer is incorrect, the card is returned to the deck. If the answer is correct, player keeps the card.
- 7. Game is over when all cards are claimed.

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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





3rd Grade Which Place?

What is the place value of the 8 in 857.01?	What is the place value of the 9 in 432.96
What is the place value of the 8 in 497.08?	What is the place value of the 4 in 942.85?
What is the place value of the 2 in 162.89?	What is the place value of the 2 in 352.61?
What is the place value of the 3 in 107.63?	What is the place value of the 9 in 537.96?





What is the place value of the 9 in 617.94?	What is the place value of the 1 in 947.81?
What is the place value of the 5 in 246.75?	What is the place value of the 8 in 108.93?
What is the place value of the 6 in 650.81?	What is the place value of the 2 in 429.37?
What is the place value of the 4 in 62.94?	What is the place value of the 4 in 428.93?
What is the place value of the 1 in 650.71?	What is the place value of the 8 in 107.89?



What is the place value of | What is the place value of the 3 in 246.35?

the 5 in 852.04?



Which Place? Game Board

tenths	ones	hundreds tens		hundredths
				hundreds
ones	hundredths	tens	hundreds	tenths
tenths				
tens	ones	tens	hundreds	tenths
				hundredths



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Which Place? 2
Focus:	Decimals

Materials:		
White boards	Vocabulary Notebooks	Materials at end of lesson plan
Crayolas	12-sided dice for each pair	
Socks	Number Hunt Work Sheet	

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

Share what you understand about decimals. On a white board, show how you would write 38 cents using a dollar sign and a decimal point. Try writing eight dollars and forty-one cents; 6 dollars and thirty-seven cents; and ten dollars and eight-eight cents. Compare and discuss what the meaning of the numbers to the right of the decimals point is. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

	Content (the "Meat")	
	Problem of the Day	*Activity → Teachable Moment(s) throughout
	nts to plant 55 daffodils. Each flower pot will hold 10 daffodils. How many flower e need to plan all of the daffodils? Draw a picture and explain your answer.	During the lesson check in with students repeatedly.
		Check in about what is
	Fact Practice	happening and what they are thinking.
Number H	unt	Take advantage of any
1.	Divide students into pairs	teachable moments
2.	Each pair needs a Number Hunt sheet (attached to this lesson plans)	Stop the class and focus on a
3.	Player rolls two, 12-sided dice.	student's key learning or
4.	Player adds or subtracts the two numbers.	understanding. Ask open-
5.	If the number is not yet covered, then player may cover the number.	ended questions to
6.	Next player repeats steps 1-3.	determine what the rest of



7. Winner is determined by who has the most numbers covered.

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: and

Description: The term and is the word we use when we are reading a number aloud and it has a decimal point in it. When we come to the decimal point, we say the word "and" to indicate the decimal point. Sometimes people say the word "and' in between the word hundred and 26, for example 3 hundred and 26. If you say a number that way, what you are saying is 300.26. So if you want to say 326, you need to say three hundred twenty-six and leave out the word "and".

Create an entry in your Vocabulary Notebook for the word and.

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

Vocabulary Notebooks can be made from ½ of a composition book

acting out an equation)

Activity Decimals

Tenths and Hundredths Place Value

It is important that students be able to move easily between the place value of whole numbers (thousands hundreds, tens, and ones) and both tenths and hundredths which represent a portion of the whole.

In the activity today and tomorrow, students will be playing a game that has them determine the place value of an identified number.

Which Place?

Directions:

- 1. Divide students into pairs
- 2. Give each pair a set of Which Place? Cards and a Game Board
- 3. Player one draws a Which Place? Card and determines which place value the underlined number represents.
- 4. Player places a token on the word on the game board that indicates the correct place
- 5. Player 2 repeats 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



- 6. If the answer is incorrect, the card is returned to the deck. If the answer is correct, player keeps the card.
- 7. Game is over when all cards are claimed.

Closin

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



Number Hunt

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

Number Hunt

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





3rd Grade Which Place?

What is the place value of the 8 in 857.01?	What is the place value of the 9 in 432.96
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What is the place value of the 9 in 617.94?	What is the place value of the 1 in 947.81?
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What is the place value of the 4 in 62.94?	What is the place value of the 4 in 428.93?
What is the place value of the 1 in 650.71?	What is the place value of the 8 in 107.89?



the 3 in 246.35?

What is the place value of | What is the place value of the 5 in 852.04?



Which Place? Game Board

tenths	ones	hundreds tens		hundredths
				hundreds
ones	hundredths	tens	hundreds	tenths
tenths				
tens	ones	tens	hundreds	tenths
				hundredths



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Greatest to Least
Focus:	Decimals

Materials:

White boards Vocabulary Notebooks

Crayolas deck of cards, no face cards or jokers for math fact practice

Socks Activity at the end of the lesson plan

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

Share what you understand about decimals. On a white board, show how you would write 38 cents using a dollar sign and a decimal point. Try writing eight dollars and forty-one cents; 6 dollars and thirty-seven cents; and ten dollars and eight-eight cents. Compare and discuss what the meaning of the numbers to the right of the decimals point is. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")					
Problem of the Day What is the rule for the pattern below? How did you find it? Complete the list.	*Activity → Teachable Moment(s) <i>throughout</i>				
12, 13, 14, 18, 22,,	During the lesson check in with students repeatedly.				
Fact Practice Draw!	Check in about what is happening and what they are thinking.				
 Divide students into pairs and give each pair a deck of cards Remove the face cards and jokers from the deck of cards. 	Take advantage of any teachable moments				
 3. Shuffle the deck. 4. Decide who will go first. 5. First player draws two cards. 	Stop the class and focus on a student's key learning or understanding. Ask openended questions to				
6. Student adds or subtracts the cards.	determine what the rest of				



- 7. Student writes his/her problem on the white board, writing a complete number sentence.
- 8. Students take turns drawing cards and creating problems.

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: greatest

Description: The term greatest in math refers to which is larger; which has the greatest value. Since we only have 10 numerals (0, 1, 2, 3, 4, 5, 6, 7, 8, and 9), the place that a number is in determines to value and helps you to determine which number is the greatest. In decimals, it is important to look first at the whole number if there is one to the left of the decimal. Obvious if one number is larger than another in to the left of the decimal, then the decision is easy. If the numbers to the left are the same, then must look at the numbers to the right of the decimal and ask yourself which is larger or greatest. Look at several examples to determine if students understand this concept.

Have student complete his/her Vocabulary Notebook for the term "greatest".

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 Decimals

Greatest to Least

Another skill that students need to master when dealing with decimals if the ability to order them from greatest to least or least to greatest. This is something that will help students as they begin to add, subtract, multiply, divide and compare decimals.

Greatest to Least

Directions:

- 1. Divide students into pairs
- 2. Give each pair a white board or a copy of the number line (either laminate or place in a transparent sheet protector, and a deck of Greatest to Least Cards.
- 3. Player 1 draws a card and orders the numbers on the card from greatest to least. Player

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 and 2 discuss, making any corrections needed.
- 4. Player 2 repeats the process.
- 5. Game is over when all cards have been drawn.

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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



3rd Grade Greatest to Least

On the white board, write the following in order from greatest to least	On the white board, write the following in order from greatest to least
0.1 3 2.6 4.5	2.6 0.1 .27 2.7
On the white board, write the following in order from greatest to least	On the white board, write the following in order from greatest to least
2 1.4 1.2 1.0	1.4 1.6 7 1.2
On the white board, write the following in order from greatest to least	On the white board, write the following in order from greatest to least
5 3.4 3.6 .9	0.5 0.9 0.6 1.2
On the white board, write the following in order from greatest to least	On the white board, write the following in order from greatest to least
0.4 2.2 0.8 5.0	0.3 1.2 2.8 0.8
On the white board, write the following in order from greatest to least	On the white board, write the following in order from greatest to least
0.32 0.14 0.43 0.58	4.32 4.67 4.13 4.53



On the white board, write the following in order from greatest to least			On the whi			llowing in	
028	1.28	0.99	0.81	3.81	3.71	3.90	3.01
On the whit			llowing in	On the whi			llowing in
4.03	4.13	3.97	4.28	0.24	2.4	24.0	2.43
On the white board, write the following in order from greatest to least			On the whi			llowing in	
4.09	3.87	3.12	4.01	21.3	2.13	0.21	213.0
On the whit	•		llowing in	On the whi			llowing in
24.98	3.98	12.98	1.98	2.11	3.01	0.89	1.89
On the white board, write the following in order from greatest to least		On the whi			llowing in		
6.01	60.1	0.61	.06	0.98	9.80	1.98	3.09



On the white board, write the following in order from greatest to least			On the whi			lowing in	
24.09	2.49	31.21	2.41	2.45	2.33	0.98	1.69
On the white order from g			owing in	On the whi			lowing in
3.92	3.98	30.9	0.95	6.04	64.3	6.78	0.69
On the white board, write the following in order from greatest to least			On the whi			lowing in	
50.71	5.07	0.51	1.53	3.11	31.1	42.9	41.6
On the white order from g			owing in	On the whi			lowing in
2.84	0.89	1.87	3.12	7.24	72.41	7.04	0.74
On the white board, write the following in order from greatest to least			On the whi	-		lowing in	
3.21	8.93	9.01	6.71	9.01	90.1	9.12	9.38



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Greatest to Least 2
Focus:	Decimals

Materials:

White boards Vocabulary Notebooks
Crayolas Double 9 Dominoes

Socks Activity at the end of this lesson plan

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

Share what you understand about decimals. On a white board, show how you would write 38 cents using a dollar sign and a decimal point. Try writing eight dollars and forty-one cents; 6 dollars and thirty-seven cents; and ten dollars and eight-eight cents. Compare and discuss what the meaning of the numbers to the right of the decimals point is. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

How can you tell that you are on the right track for solving the problem?

What are the basic operations that you need to utilize during math?

Content (the "Meat")

Problem of the Day

Linda wants to write the number 82,479 in expanded notation. She writes 80,000 + 400 + 70 + 9. Is she correct? How do you know?

Fact Practice

Spots and Dots

There is a master of Double 9 Dominos attached to this lesson plan. You will need 1 full set for each pair of students in your class. It is recommended that you duplicate on card stock and if possible, laminate for use again in the future.

Players sit across from each other.

Dominoes are between them, face (or spots) down.

Each student draws a domino and writes the addition problem on their white board, adding the numbers represented by the spots Example: Domino drawn is

*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





Addition: 2 + 3 = 5

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

Math Vocabulary

Math term: least

Description: The term "least" refers to the value of a number as well as greatest. Again, since we have only 10 digits (0, 1, 2, 3, 4, 5, 6, 7, 8, and 9) the place that this number is in makes its value different. Practice a variety of numbers with decimals and both tenths and hundreds so students can be familiar with how to determine which is least and which is greatest.

Have student create an entry and then review his/her Vocabulary Notebook for the term "least" with a peer.

Any corrections that need to be made should be made.

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 Decimals

Greatest to Least

Another skill that students need to master when dealing with decimals if the ability to order them from greatest to least or least to greatest. This is something that will help students as they begin to add, subtract, multiply, divide and compare decimals.

Greatest to Least

Directions:

- 1. Divide students into pairs
- 2. Give each pair a white board or a copy of the number line (either laminate or place in a transparent sheet protector, and a deck of Greatest to Least 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. Player 1 draws a card and orders the numbers on the card from greatest to least. Player 1 and 2 discuss, making any corrections needed.
- 4. Player 2 repeats the process.
- 5. Game is over when all cards have been drawn.
- 6. Game is over when all cards have been played.

	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



Double 9 Dominoes

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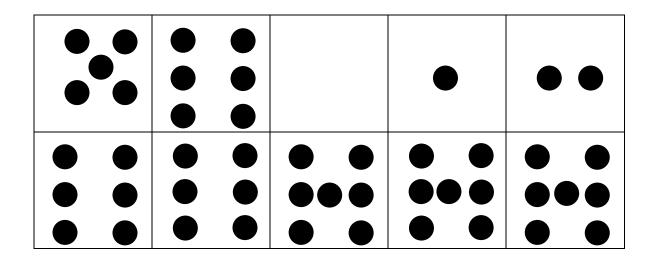
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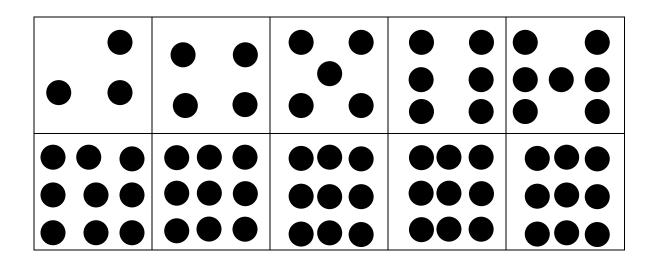
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3rd Grade Greatest to Least

On the white board, write the following in order from greatest to least	On the white board, write the following in order from greatest to least			
0.1 3 2.6 4.5	2.6 0.1 .27 2.7			
On the white board, write the following in order from greatest to least	On the white board, write the following in order from greatest to least			
2 1.4 1.2 1.0	1.4 1.6 7 1.2			
On the white board, write the following in order from greatest to least	On the white board, write the following in order from greatest to least			
5 3.4 3.6 .9	0.5 0.9 0.6 1.2			
On the white board, write the following in order from greatest to least	On the white board, write the following in order from greatest to least			
0.4 2.2 0.8 5.0	0.3 1.2 2.8 0.8			
On the white board, write the following in order from greatest to least	On the white board, write the following in order from greatest to least			
0.32 0.14 0.43 0.58	4.32 4.67 4.13 4.53			



On the white board, write the following in order from greatest to least			On the white board, write the following in order from greatest to least				
028	1.28	0.99	0.81	3.81	3.71	3.90	3.01
On the whit			lowing in	On the whit			llowing in
4.03	4.13	3.97	4.28	0.24	2.4	24.0	2.43
On the white board, write the following in order from greatest to least			On the white board, write the following in order from greatest to least				
4.09	3.87	3.12	4.01	21.3	2.13	0.21	213.0
On the white			lowing in	On the white board, write the following in order from greatest to least			
24.98	3.98	12.98	1.98	2.11	3.01	0.89	1.89
On the white board, write the following in order from greatest to least			On the white board, write the following in order from greatest to least			lowing in	
6.01	60.1	0.61	.06	0.98	9.80	1.98	3.09



On the white board, write the following in order from greatest to least			On the white board, write the following in order from greatest to least				
24.09	2.49	31.21	2.41	2.45	2.33	0.98	1.69
On the white order from g			owing in	On the white board, write the following in order from greatest to least			
3.92	3.98	30.9	0.95	6.04	64.3	6.78	0.69
On the white board, write the following in order from greatest to least			On the white board, write the following in order from greatest to least				
50.71	5.07	0.51	1.53	3.11	31.1	42.9	41.6
On the white order from g			owing in	On the white board, write the following in order from greatest to least			lowing in
2.84	0.89	1.87	3.12	7.24	72.41	7.04	0.74
On the white board, write the following in order from greatest to least			On the white board, write the following in order from greatest to least			lowing in	
3.21	8.93	9.01	6.71	9.01	90.1	9.12	9.38



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Adding Decimals
Focus:	Decimals

Materials:

White boards Vocabulary Notebooks

Crayolas dice (6-sided and 12-sided for each pair)
Socks Activity at the end of this lesson plan

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. Now that we've explored decimals for a few days, what do you know about decimals? About tenths? About hundredths? About place value? About how you read a number with a decimal in it? When we think of decimals one of the most common usages has to do with money. Describe what these money amounts are: \$6.34, \$9.14, and \$32.57.

Content (the "Meat")

Problem of the Day

Your student store sold 4,211 Snickers candy bars and 3,781 Milky Ways. How many candy bars did you sell? How many more Snickers than Milky Ways? Explain your answer.

Fact Practice Fact Family

A Fact Family is 3 numbers which have a relationship in addition and subtraction. For example, the number 9, 4, and 13 have a particular relationship in math. This family has four members:

9 + 4 = 13

4 + 9 = 13

13 - 9 = 4

13 - 4 = 9

Students should roll 2 dice and create a Fact Family by writing the members of the family on the white board. Student should roll a total of 5 times, creating 5 Fact Families

*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



Math Vocabulary

Word for Today: vertical

Description: The term "vertical refers to some up and down, like a tree. Vertical things are upright and not sideways. When we add or subtract with decimals, it is important to write the problems vertically and line up the decimal points of each of the numbers. If we do this, then addition and subtraction of decimals is as simple as adding and subtracting whole numbers.

Have student create and entry in his/her Vocabulary Notebook for the term "vertical". Any corrections that need to be made should be made.

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

student become the teacher

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 Decimals

Addition of decimals is just like adding whole numbers with a twist. The first step is that addition of decimals requires you to write the problems vertically and it is essential that you line the decimals of the numbers up. For example, if the problem is 32.5 + 2.13 = you would need to rewrite the problem in this way:

32.5 +2.13

As you can see there is no numeral over the final 3 in 2.13, so you would want to put a 0 over it to make the numbers even. This would make the top number read 32.50. In a decimal a 0 added to the right does not change the value of a number. Today and tomorrow the students will work on adding decimals.

Demonstrate and model several problems for the students so they are able to complete the activity successfully.

Adding Decimals Directions:

- 1. Divide students into pairs
- 2. Give each pair a set of Decimal Addition cards and a white board.
- 3. Together, the pair is to select a card and complete the problem on the white board.
- 4. When all of the problems are finished, then the activity is over.

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





3rd Grade Adding Decimals

5.4	7.4	9.8	4.2
+3.1	<u>+5.5</u>	+3.0	+7.4
7.5	2.6	3.5	7.4
+3.9	+3.1	+5.7	+5.3
2.1	5.0	2.1	4.6
+5.5	+4.9	+9.2	+5.9
8.8	2.9	1.4	1.1
+5.2	<u>+5.1</u>	+1.3	+4.6
6.21	24.3	2.27	7.05
+.43	<u>.7</u>	+3.41	<u>+.41</u>



16.3	1.2	18.01	82.1
+21.9	+6.3	+1.23	<u>+.7</u>
22.9	6.53	3.69	9.84
+7.2	+9.86	+9.28	+1.28
3.96	2.38	8.52	1.74
+9.16	+4.27	+5.38	+5.85
9.86	9.21	8.4	2.3
+3.50	+9.94	<u>+4.6</u>	+9.9
5.4	6.7	5.53	8.3
+6.9	+8.3	+2.79	<u>+7.4</u>

CONSULT 4 KIDS

Consult 4 Kids Lesson Plans

Component	Math
Grade Level:	3 rd Grade
Lesson Title: Adding Decimals 2	
Focus:	Decimals

Materials:

White boards Vocabulary Notebooks

Crayolas Deck of cards

Socks Activity at end of lesson plan

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. Now that we've explored decimals for a few days, what do you know about decimals? About tenths? About hundredths? About place value? About how you read a number with a decimal in it? When we think of decimals one of the most common usages has to do with money. Describe what these money amounts are: \$14.98, \$3.04, \$18.71.

Content (the "Meat")

Problem of the Day

Using the five numerals below write five different 3 digit numbers. Then order the number from smallest to largest. Tell how you know that you are correct.

7 4 5 3 6

Fact Practice Bump It Up! Add A Zero

- 1. Divide students into pairs
- 2. Give each pair a white board and a deck of cards (without face cards, jokers, or 10s)
- 3. The object of this fact practice is to sum numbers until you reach 1,000.
- 4. Student draws 2 cards, adds the value of the cards together, multiplies by ten and writes the total on the sheet.
- 5. It is not the other person's turn to do the same
- 6. When play returns to the first player, the process is repeated, although this time, the totals are added together.
- 7. First person to 1,000 wins.

*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



8. Example: Player draws a 7 and a 4. Total is 11. Multiply by 10 (add the zero) equals 110. Next turn, player draws a 3 and a 2 which totals 5. Multiply by 10 and I now add 50 to 110 for a total of 160.

student become the teacher

Math Vocabulary

Word for Today: line up the decimals

Description: The term "line up the decimals" means exactly that—when you are adding or subtracting numbers with decimals it is essential that you write the problems vertically and that you line up the decimals so you are adding tenths to tenths and hundredths to hundredths. Practice this by writing several problems on the board and the white boards.

Create the entry for the term "line up the decimals" in the Vocabulary Notebook with a peer.

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 Decimals

Adding Decimals

Addition of decimals is just like adding whole numbers with a twist. The first step is that addition of decimals requires you to write the problems vertically and it is essential that you line the decimals of the numbers up. For example, if the problem is 32.5 + 2.13 = you would need to rewrite the problem in this way:

32.5 +2.13

As you can see there is no numeral over the final 3 in 2.13, so you would want to put a 0 over it to make the numbers even. This would make the top number read 32.50. In a decimal a 0 added to the right does not change the value of a number. Today and tomorrow the students will work on adding decimals.

Demonstrate and model several problems for the students so they are able to complete the activity successfully.

Adding Decimals

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 Decimal Addition cards and a white board.
- 3. Together, the pair is to select a card and complete the problem on the white board.
- 4. When all of the problems are finished, then the activity is over.

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





3rd Grade Adding Decimals

5.4	7.4	9.8	4.2
+3.1	<u>+5.5</u>	+3.0	+7.4
7.5	2.6	3.5	7.4
+3.9	+3.1	+5.7	+5.3
2.1	5.0	2.1	4.6
+5.5	+4.9	+9.2	+5.9
8.8	2.9	1.4	1.1
+5.2	+5.1	+1.3	+4.6
6.21	24.3	2.27	7.05
+.43	<u>.7</u>	+3.41	<u>+.41</u>





16.3	1.2	18.01	82.1
+21.9	+6.3	<u>+1.23</u>	<u>+.7</u>
22.9	6.53	3.69	9.84
<u>+7.2</u>	+9.86	+9.28	+1.28
3.96	2.38	8.52	1.74
+9.16	+4.27	+5.38	+5.85
9.86	9.21	8.4	2.3
+3.50	+9.94	+4.6	+9.9
5.4	6.7	5.53	8.3
+6.9	+8.3	+2.79	<u>+7.4</u>

KIDS

Consult 4 Kids Lesson Plans

Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Student Activity Choice
Focus:	Review

Materials:

Game Boards and materials from this week.

Prizes (these can be time, a leadership role, opportunities to be the "teacher"

Opening

State the objective

Today we are going to have fun playing a game. Students will be able to choose from the games learned in the past two weeks.

Content (the "Meat")

teams

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:

Decimals

Hundredths

Which Place?

Greatest to Least

Adding Decimals

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Review

Say:

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

- 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:	3 rd Grade
Lesson Title:	Skip Counting
Focus:	Multiplication

Materials:

White boards Decks of cards

Crayolas Vocabulary Notebooks

Socks Activity at the end of this lesson plan

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operation of multiplication.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What do you know about multiplication? When would you use multiplication instead of addition? If addition and subtraction are reciprocal, what is the reciprocal of multiplication? What is skip counting? What are multiples of 6?

Content (the "Meat")

Problem of the Day

Six schools want to go on a field trip to a concert. The concert hall holds 275 people. There are three concert times. Arrange the six school groups so that everyone will be able to attend the concert.

Fairview: 142 students **Jefferson**: 160 students **Martin**: 130 students **Johnson**: 68 students **Washington**: 115 student **Wilson**: 205 students

Fact Practice

Addition War

- Divide students into pairs. Give each pair a deck of cards without face cards and jokers.
- Shuffle the deck and divide the cards evenly between the two players
- On go, the players turn over the cards at the same time
- Students add the 2 numbers that have been turned up
- First person to give the answer either wins the cards because the answer is correct, or has to turn over 2 cards because he/she gave the wrong answer
- At the end of round, students may reshuffle the pile of cards that they have

*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.



It is important to review academic math vocabulary

often throughout the day.

Complete the Vocabulary

students experience the word (Ex. 4 students creating a

right angle, multiple students

acting out an equation).

notebook for each word.

When possible, have

Play can continue until one player has all cards or time has called

Math Vocabulary

Word for Today: skip counting

Description: The term skip counting is used to describe counting by a number other than 1 and leaving out some of the numbers that don't fit the pattern. One of the most common ways to count is by 10's. We say 10, 20, 30, 40, 50, 60, 70 80, 90, and 100. Another common way to skip count is to count by 5's. Right now think about the numbers you would say if you were skip counting by 5's. Think about what you would say if you were skip counting by 2's.

Create an entry in your Vocabulary Notebook for the term "skip counting".

Vocabulary Notebook Sample:

rocabaiai y irocobook Gairipioi		
New Word skip counting	My Description When you skip count you don't say every number, you would say every third number if you are saying multiples of 3.	Vocabulary Notebooks can be made from ½ of a composition book.
Personal Connection	Drawing	
If I am skip counting by 4s, I would say 4, 8, 12, 16, 20	63	

Activity Decimals

Multiplication: Multiplication is actually repeated addition. You add the same number a set number of times and that becomes a multiplication problem. Multiplication is also learning about skip counting. If you count by 2's, you skip every other number. You would say 2, 4, 6, 8, 20, 12, 14, 16, 18, 20 and so on. Those numbers that you say are multiples of 2. If you count by 5's you say 5, 10, 15, 20, 25, 30, 35, 40, 45, 50 those are the multiples of 5 and when you count be 3's you would say 3, 6, 9, 12, 15, 18, 21, 24, 27, 30 and those are the multiples of 3s.

Skip Counting Directions:

- 1. Divide students into pairs
- 2. Give each pair a 100's Chart, a different colored crayola for each player, and 1 6-sided die. **Note**: If player rolls a 1, in this game that counts as a 7.
- 3. Player one rolls the die. Player counts the pips showing and then skip counts by that number, circling each number with his/her crayon.
- 4. For example, if player rolls a 4, then he/she would circle 4, 8, 12, 16, 20, 24, 28 32, and so on.
- 5. Player 2 then takes his/her turn. If he/she rolls the same number as the first player, then he/she may roll again. **Note**: More than one person may circle a number
- 6. Play is over when time is called (about 15 minutes)

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" player getting ready to play this game so he/she could get all the blocks are completed.

- 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.



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:	3 rd Grade
Lesson Title:	Four in a Row
Focus:	Multiplication

Materials:

White boards Decks of cards

Crayolas Vocabulary Notebooks

Socks (for erasers) Activity at the end of this lesson plan

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operation of multiplication.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What do you know about multiplication? When would you use multiplication instead of addition? If addition and subtraction are reciprocal, what is the reciprocal of multiplication? What is skip counting? What are the first 5 multiples of 8? Of 9? Of 4?

Content (the "Meat")

Problem of the Day

There were 20 cookies on the table this morning. More cookies were added after lunch. Now there are 37 cookies. How many cookies were placed on the table after lunch? Explain your answer.

Fact Practice

Foreheader

- 1. Divide students into trios. Give each trio a deck of cards without face cards and jokers.
- 2. Shuffle the deck and give all of the cards to the referee who will be "judging" the contest
- 3. On go, players are each handed a card by the referee and **WITHOUT** looking, put the card face out on his/her forehead
- 4. The referee adds the two numbers together and states the answer
- 5. Each player looks at the other person's exposed number and names his/her own number
- **6.** Person who wins (accuracy and time), collects both cards
- 7. Play continues until all cards are gone.
- **8.** Players can repeat play (if there is another time) with each other so each has an opportunity to be both a player and referee

*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.



Math Vocabulary

Word for today: multiples

Description: The term, multiples, refers to the number you get when you multiply numbers together. For example, the multiples of 4 are 4, 8, 12, 16, 20. You would get these numbers by multiplying 4 x 1, 4 x 2, 4 x 3, 4 x 4, 4 x 5. Knowing the multiples of a number allows you to understand how different numbers are related. For example a common point for the number 3 and 4 are 12, 24, 36 and so on. You can know this if you know what the multiples are.

Create an entry for the word "multiples" in your Vocabulary Notebook.

Vocabulary Notebook Sample:

vocabulary Notebook Sample.	
New Word	My Description
multiples	The numbers you get when you multiply by a specific number: 2, 4, 6, 8, 10 are multiples of 2
Personal Connection	Drawing
I have socks in multiples of 2.	A A V

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 Multiplication

Multiplication is actually repeated addition. You add the same number a set number of times and that becomes a multiplication problem. Multiplication is also learning about skip counting. If you count by 2's, you skip every other number. You would say 2, 4, 6, 8, 20, 12, 14, 16, 18, 20 and so on. Those numbers that you say are multiples of 2. If you count by 5's you say 5, 10, 15, 20, 25, 30, 35, 40, 45, 50 those are the multiples of 5 and when you count be 3's you would say 3, 6, 9, 12, 15, 18, 21, 24, 27, 30 and those are the multiples of 3s.

Four In A Row Directions:

- 1. Divide players into pairs
- 2. Give each pair a Four In A Row game board, markers and 1 die (Note: in this game when player rolls a 1 it will be a 7.)
- 3. Player 1 rolls the die. Any multiple of that number can be marked. For example, if the player rolls a 4, he/she could mark the 4, 8, 12, 16, 20, 24, 28, 32, 36, or 40. Strategically, he/she should mark the multiple that will help them get 4 markers in a row vertically, horizontally, or diagonally.
- 4. One Player 1 is finished, Player 2 repeats the process
- 5. Play is over when one player has 4 tokens in a row.

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.

3rd Grade Four In A Row

1	2	8	6	3	2
2	3	1	5	1	4
4	1	3	2	1	3
4	8	2	1	2	9
2	1	4	2	2	3
3	2	5	6	4	4
3	1	2	3	1	7
1	2	1			6



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Four in a Row 2
Focus:	Multiplication

Materials:

White boards Vocabulary Notebooks Activity at end of this lesson plan

Crayolas Socks (erasers for white board)

Dice Cards(remove face cards, use the joker as a zero)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice multiplication.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What do you know about multiplication? When would you use multiplication instead of addition? If addition and subtraction are reciprocal, what is the reciprocal of multiplication? What is skip counting? What are multiples? List multiples of 3; of 6; of 4; of 5.

	Content (the "Meat")	
	Problem of the Day	
Find th	e missing number. How did you find the number?	
	26 = 14	w C
	Fact Practice	h
Spoke	s on a Wheel	th
1.	Divide students into pairs	T
2.	On a white board, student draws a small circle with 9 spokes coming out of it (should look like a bicycle tire)	te S
3.	Have students choose to put a 6, 7 or 8 in the center circle	S
4.	Student rolls two dice and adds the pips (dots)	u
5.	Taking this total, student writes a math problem on one of the spokes (eg. 7 is in	d
	the circle and students rolls a 3 and 5 which totals 8. The spoke equation would	th
	look like 7 + 8 = 15	۷
6.	Process continues until all spokes have an equation	S
		0

*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.



Math Vocabulary

Word for today: multiplication

Description: Multiplication is a term that refers to the idea of repeated addition. In the problem 3×4 , you are really being asked to add 4 + 4 + 4 = 12 and come up with the answer of 12. While that may be relatively easy when you are repeatedly adding 4, if you have the multiplication problem 347×296 , the thought of adding 347 a total of 296 times is daunting. Multiplication gives you a way to do this in a simplified fashion Students complete the Vocabulary Notebook for the term "multiplication".

Vocabulary Notebook Sample:

New Word	My Description
multiplication	A fast was to add the same number for a certain number of times.
Personal Connection	Drawing
Multiplication is easier that subtraction.	5 x 4 = 20

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 Multiplication

Multiplication is actually repeated addition. You add the same number a set number of times and that becomes a multiplication problem. Multiplication is also learning about skip counting. If you count by 2's, you skip every other number. You would say 2, 4, 6, 8, 20, 12, 14, 16, 18, 20 and so on. Those numbers that you say are multiples of 2. If you count by 5's you say 5, 10, 15, 20, 25, 30, 35, 40, 45, 50 those are the multiples of 5 and when you count be 3's you would say 3, 6, 9, 12, 15, 18, 21, 24, 27, 30 and those are the multiples of 3s.

Four In A Row

Directions:

- 1. Divide players into pairs
- 2. Give each pair a Four In A Row game board, markers and 1 die (Note: in this game when player rolls a 1 it will be a 7.)
- 3. Player 1 rolls the die. Any multiple of that number can be marked. For example, if the player rolls a 4, he/she could mark the 4, 8, 12, 16, 20, 24, 28, 32, 36, or 40. Strategically, he/she should mark the multiple that will help them get 4 markers in a row vertically, horizontally, or diagonally.
- 4. One Player 1 is finished, Player 2 repeats the process
- 5. Play is over when one player has 4 tokens in a row.

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:	
• Pleas	e recap what we did today.
	e 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.

3rd Grade Four In A Row

1	2	8	6	3	2
2	3	1	5	1	4
4	1	3	2	1	3
4	8	2	1	2	9
2	1	4	2	2	3
3	2	5	6	4	4
3	1	2	3	1	7
1	3	1	2	2	6



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Multiplication War
Focus:	Multiplication

Materials:

White boards Vocabulary Notebooks

Cravolas dice

Socks (for erasers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

Multiplication is a way of doing repeated addition. You need to know about skip counting and multiples. Turn to a partner and tell them what you know about all three of these things (multiplication, skip counting and multiples).

Content (the "Meat")

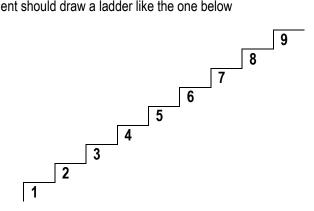
Problem of the Day

Jaci baked 365 cookies this week. She started baking on Tuesday. On Wednesday she baked 153 cookies. On Thursday she baked 145 cookies. How many did she bake on Tuesday? How do you know?

Fact Practice

Addition Ladder

- 1. Give each student a white board (include marker or crayola)
- 2. Student should draw a ladder like the one below



3. Have student roll 2 dice, total the pips and then add that number to each of 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.



numbers in the	ladder, writing	the sum to t	the right of the	number

Math Vocabulary

Word for Today: repeated addition

Vocabulary Notebook Sample:

New Word	My Description
repeated addition	Add the same number together over and over, 3 + 3 + 3 + 3 + 3 = 3 x 5
Personal Connection	Drawing
Multiplication is really just repeated addition.	3+3+3+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 Multiplication

Multiplication: Multiplication is actually repeated addition. You add the same number a set number of times and that becomes a multiplication problem. Multiplication is also learning about skip counting. If you count by 2's, you skip every other number. You would say 2, 4, 6, 8, 20, 12, 14, 16, 18, 20 and so on. Those numbers that you say are multiples of 2. If you count by 5's you say 5, 10, 15, 20, 25, 30, 35, 40, 45, 50 those are the multiples of 5 and when you count be 3's you would say 3, 6, 9, 12, 15, 18, 21, 24, 27, 30 and those are the multiples of 3s.

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.

Multiplication War

Directions:

- 1. Divide students into pairs
- 2. Give each pair a deck of cards with the face cards, jokers, and 10s removed.
- 3. Shuffle the cards and deal out all of the cards to the 2 players
- 4. Simultaneously, players turn over a card and multiply these two numbers together.
- 5. The player who gets the product correct first, wins both cards.
- 6. Play is over when one person has all of the cards.



	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:	3 rd Grade
Lesson Title:	Math Jeopardy
Focus:	Multiplication

Materials:

White boards Vocabulary Notebooks
Crayolas Deck of Cards for each pair

Activity at the end of this lesson plan Socks (use as erasers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

Multiplication is a way of doing repeated addition. You need to know about skip counting and multiples. Turn to a partner and tell them what you know about all three of these things (multiplication, skip counting and multiples).

Content (the "Meat'
Problem of the Day

Create a story problem for this number sentence:

425 - 345 = 80

Fact Practice

Target

- 1. Divide students into trios
- 2. Each trio needs a deck of cards without face cards and jokers
- 3. Place the cards face up in a TicTac Toe Grid
- 4. Turn up a 10th card which will be to the side and becomes the target number (aces count as 1)
- 5. Each player makes an equation with some or all of the numbers in the grid to equal the target number. Students may add or subtract.
- 6. Each card may be used only one time in the equation
- 7. As the cards are being picked up, the player must say the equation aloud—for example if the target card is 10, then I could say 6 + 4 = 10, and pick up the 6 and the 4.

*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.



- 8. After one player finishes his/her turn, then the cards taken are replaced by cards from the remaining deck
- 9. Player with the most cards at the end of the game win

Math Vocabulary

Word for today: multiplication facts

Description: The term "multiplication facts" refers to all of the basic multiplication facts, 1 x 1 through 12 x 12. Having those facts committed to memory and knowing them automatically makes the whole process of multiplication easier. There are tables that you can find that will show the answer to each of the facts.

Students should complete the Vocabulary Notebook for the term multiplication facts.

Vocabulary Notebook Sample:

New Word	My Description
multiplication facts	Multiplication basics, 3 x 4, 6 x 8, 9 x 2
Personal Connection	Drawing
The multiplication facts that make my age are 1 x 12, 2 x 6, and 3 x 4.	3 x 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 Multiplication

Multiplication is actually repeated addition. You add the same number a set number of times and that becomes a multiplication problem. Multiplication is also learning about skip counting. If you count by 2's, you skip every other number. You would say 2, 4, 6, 8, 20, 12, 14, 16, 18, 20 and so on. Those numbers that you say are multiples of 2. If you count by 5's you say 5, 10, 15, 20, 25, 30, 35, 40, 45, 50 those are the multiples of 5 and when you count be 3's you would say 3, 6, 9, 12, 15, 18, 21, 24, 27, 30 and those are the multiples of 3s.

Math Jeopardy

Directions:

- 1. Divide students into pairs
- 2. Give each pair a set of Jeopardy Cards and Game Board
- 3. Shuffle the Jeopardy Cards and place them to the right of the game board
- 4. Player 1 draws a card which is the answer to a multiplication problem
- 5. Player 1 then determines which problem on the game board is the correct question for the "answer" on his/her card and places a marker on the problem
- 6. Player 2 then plays in the same way Game is over when all "questions" are covered.

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 reca 	p what we did today.	
 Did we achie 	eve 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.



3rd Grade Jeopardy Game Board

2 x 8 =	7 x 7 =	3 x 5 =	4 x 6 =	3 x 7 =
6 x 6 =	6 x 9 =	4 x 8 =	4 x 9 =	5 x 5 =
6 x 7 =	9 x 5 =	3 x 4 =	4 x 7 =	3 x 9 =
5 x 2 =	2 x 9 =	4 x 5 =	4 x 4 =	3 x 6 =
3 x 8 =	6 x 8 =	7 x 9 =	2 x 4 =	6 x 5 =



3rd Grade Jeopardy Cards

16	49	15	24	21
36	54	32	36	25
42	45	12	28	27
10	18	20	16	18
24	48	63	8	30



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Math Jeopardy 2
Focus:	Multiplication

Materials:

White boards Vocabulary Notebooks Materials at end of lesson plan

Crayolas 12-sided dice for each pair

Number Hunt Work Sheet Socks (for erasers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

Multiplication is a way of doing repeated addition. You need to know about skip counting and multiples. Turn to a partner and tell them what you know about all three of these things (multiplication, skip counting and multiples).

Content (the "Meat")	
Problem of the Day	*Activity → Teachable Moment(s) throughout
Janice's mom bought 5 boxes of ice cream bars. Each box contains 6 different bars. How many ice cream bars did Janice's mom buy?	During the lesson check in with students repeatedly.
Fact Practice Number Hunt	Check in about what is happening and what they are thinking.
 Divide students into pairs Each pair needs a Number Hunt sheet (attached to this lesson plans) 	Take advantage of any teachable moments.
 Player rolls two, 12-sided dice. Player adds or subtracts the two numbers. If the number is not yet covered, then player may cover the number. Next player repeats steps 1-3. Winner is determined by who has the most numbers covered. 	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.



Math Vocabulary

Word for Today: product

Description: The term product is used to describe the answer that you get when you multiply 2 numbers together. The product of 3×4 is 12. What is the product of 5×6 ? Of 3×8 ? Of 6×2 ?

Create an entry in your Vocabulary Notebook for the term product.

Vocabulary Notebook Sample:

New Word	My Description
product	When you multiply numbers you end up with a product as the answer.
Personal Connection	Drawing
The product of 7 x 6 is 42.	42

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 Multiplication

Multiplication is actually repeated addition. You add the same number a set number of times and that becomes a multiplication problem. Multiplication is also learning about skip counting. If you count by 2's, you skip every other number. You would say 2, 4, 6, 8, 20, 12, 14, 16, 18, 20 and so on. Those numbers that you say are multiples of 2. If you count by 5's you say 5, 10, 15, 20, 25, 30, 35, 40, 45, 50 those are the multiples of 5 and when you count be 3's you would say 3, 6, 9, 12, 15, 18, 21, 24, 27, 30 and those are the multiples of 3s.

Math Jeopardy

Directions:

- 1. Divide students into pairs
- 2. Give each pair a set of Jeopardy Cards and Game Board
- 3. Shuffle the Jeopardy Cards and place them to the right of the game board
- 4. Player 1 draws a card which is the answer to a multiplication problem
- 5. Player 1 then determines which problem on the game board is the correct question for the "answer" on his/her card and places a marker on the problem
- 6. Player 2 then plays in the same way
- 7. Game is over when all "questions" are covered

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 reca 	p what we did today.	
 Did we achie 	eve 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.



Number Hunt

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

Number Hunt

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



2 x 8 =	7 x 7 =	3 x 5 =	4 x 6 =	3 x 7 =
6 x 6 =	6 x 9 =	4 x 8 =	4 x 9 =	5 x 5 =
6 x 7 =	9 x 5 =	3 x 4 =	4 x 7 =	3 x 9 =
5 x 2 =	2 x 9 =	4 x 5 =	4 x 4 =	3 x 6 =
3 x 8 =	6 x 8 =	7 x 9 =	2 x 4 =	6 x 5 =



3rd Grade Jeopardy Cards

16	49	15	24	21
36	54	32	36	25
42	45	12	28	27
10	18	20	16	18
24	48	63	8	30



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Fact Family Go Fish
Focus:	Multiplication

Materials:

White boards Vocabulary Notebooks

Crayolas deck of cards, no face cards or jokers for math fact practice

Activity at the end of the lesson plan

Socks (use as erasers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

Multiplication and division are reciprocal processes. Multiplication is a simplified way of adding the same number repeatedly. Division is like doing the same thing but with subtraction. What are multiples of 3? What are multiples of 7? What are multiples of 4? What are multiples of 10?

Content (the "Meat")

Problem of the Day

Joey has 10 white socks, 2 brown socks, and 14 red socks. If he grabs a sock without looking, which color is most likely to be picked? Which color is least likely to be picked? Which colors are equally likely to be picked? Explain your answers.

Fact Practice

Draw!

- 1. Divide students into pairs and give each pair a deck of cards
- 2. Remove the face cards and jokers from the deck of cards.
- Shuffle the deck.
- 4. Decide who will go first.
- 5. First player draws two cards.
- 6. Student adds or subtracts the cards.
- 7. Student writes his/her problem on the white board, writing a complete number sentence.
- 8. Students take turns drawing cards and creating problems.

*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.



Math Vocabulary

Word for Today: factors

Description: The term factor is used to describe the numbers that you multiply together in a multiplication problem to get a product. Some numbers have quite a few factors while others only have 2. For example, 7 has only two factors: 1 and 7. However 36 has many factors: 1, 36, 2, 18, 3, 12, 3, 9, 6 and 6. Name some other numbers that have only two factors (1 and themselves) and some that have more that those two factors.

Have student complete his/her Vocabulary Notebook for the term "factors".

Vocabulary Notebook Sample:

New Word	My Description
factors	The numbers you multiply together to get a product.
Personal Connection	Drawing
My age is the product of 2 factors: 2 and 5.	$-2 \times 5 = 10$

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 Multiplication

Multiplication and Division are reciprocal actions. When you multiply the reverse of that operation is division. This creates families of facts. For example: $6 \times 9 = 54$, $9 \times 6 = 54$, $54 \div 6 = 9$ and finally $54 \div 6 = 9$. It is important that as you focus on learning your multiplication facts that you learn the entire family. There are a total of 100 multiplication fact problems and 100 division fact problems, but when you learn them as a family, instead of 200 problems you are really learning about 50. So practicing the fact families makes sense.

Fact Family Go Fish

Directions:

- 1. Divide students into trios
- 2. Give each trio a deck of Go Fish Fact Family Cards
- 3. Shuffle the cards
- 4. Deal 5 cards to each player and place the remainder in the middle
- 5. Players look for any matches (it takes 4 cards to match—3 x 2 = 6, 2 x3 = 6, 6 \div 3 = 2, and 6 \div 2 = 3.
- 6. Player 1 then asks one of the other players for a fact family match—saying "Do you have a fact family card for 3 x 2 = 6? The specific player asked must give any matching card to the Player asking.
- 7. If Player 1 gets a match then he/she may ask again, if not, then he/she must go fish.
- 8. Player 2 and Player 3 continue in the same way
- 9. Game is over when all cards are matched

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.



3rd Grade Fact Family Go Fish

2 x 8 =	8 x 2 =	16 ÷ 2 = 8	16 ÷ 8 = 2
3 x 5 = 15	5 x 3 = 15	15 ÷ 3 = 5	15 ÷ 5 = 3
4 x 6 = 24	6 x 4 = 24	24 ÷ 4 = 6	24 ÷ 6 = 4
3 x 7 = 21	7 x 3 = 21	21 ÷ 3 = 7	21 ÷ 7 = 3

6 x 9 = 54	9 x 6 = 54	54 ÷ 6 = 9	54 ÷ 9 = 6
4 x 8 = 32	8 x 4 = 32	32 ÷ 4 = 8	32 ÷ 8 = 4
4 x 9 = 36	9 x 4 = 36	36 ÷ 4 = 9	36 ÷ 9 = 4
6 x 7 = 42	7 x 6 = 42	42 ÷ 6 = 7	42 ÷ 7 = 6

9 x 5 = 45	5 x 9 = 45	45 ÷ 9 = 5	45 ÷ 5 = 9
3 x 4 = 12	4 x 3 = 12	12 ÷ 3 = 4	12 ÷ 4 = 3
4 x 7 = 28	7 x 4 = 28	28 ÷ 4 = 7	28 ÷ 7 = 4
3 x 9 = 27	9 x 3 = 27	27 ÷ 3 = 9	27 ÷ 9 = 3

5 x 2 = 10	2 x 5 = 10	10 ÷ 5 = 2	10 ÷ 2 = 5
2 x 9= 18	9 x 2 = 18	18 ÷ 2 = 9	18 ÷ 9 = 2
3 x 6 = 18	6 x 3 = 18	18 ÷ 3 = 6	18 ÷ 6 = 3
6 x 8 = 48	8 x 6 = 48	48 ÷ 6 = 8	48 ÷ 8 = 6

7 x 9 = 63	9 x 7 = 63	63 ÷ 7 = 9	63 ÷ 9 = 7
2 x 4 = 8	4 x 2 = 8	8 ÷ 2 = 4	8 ÷ 4 = 2



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Fact Family Go Fish 2
Focus:	Multiplication

Materials:

White boards Vocabulary Notebooks
Crayolas Double 9 Dominoes

Activity at the end of this lesson plan Socks (use for erasers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem?

Multiplication and division are reciprocal processes. Multiplication is a simplified way of adding the same number repeatedly. Division is like doing the same thing but with subtraction. What are multiples of 3? What are multiples of 7? What are multiples of 4? What are multiples of 10?

Content (the "Meat")

Problem of the Day

Joe has 1 \$5.00 bill, eight \$1.00 bills, and 6 quarters. If he buys a game that costs \$9.55 how much money will he have left? How do you know?

Fact Practice

Spots and Dots

There is a master of Double 9 Dominos attached to this lesson plan. You will need 1 full set for each pair of students in your class. It is recommended that you duplicate on card stock and if possible, laminate for use again in the future.

Players sit across from each other.

Dominoes are between them, face (or spots) down.

Each student draws a domino and writes the addition problem on their white board, adding the numbers represented by the spots Example: Domino drawn is



*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.



Addition:	2 +	3 =	5
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Math Vocabulary

Math term: quotient

Description: The term quotient refers to the answer in a division problem. In addition the answer is called the sum; in subtraction the difference; the product in multiplication; and quotient in division.

Create an entry for the word quotient in your Vocabulary Notebook.

Vocabulary Notebook Sample:

New Word	My Description
quotient	Answer in a division problem
Personal Connection	Drawing
The quotient of the problem $12 \div 6 = \text{is } 2$.	12 ÷ 6 = 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.

Activity Multiplication

Multiplication and Division are reciprocal actions. When you multiply the reverse of that operation is division. This creates families of facts. For example: $6 \times 9 = 54$, $9 \times 6 = 54$, $54 \div 6 = 9$ and finally $54 \div 6 = 9$. It is important that as you focus on learning your multiplication facts that you learn the entire family. There are a total of 100 multiplication fact problems and 100 division fact problems, but when you learn them as a family, instead of 200 problems you are really learning about 50. So practicing the fact families makes sense.

Fact Family Go Fish

Directions:

- 1. Divide students into trios
- 2. Give each trio a deck of Go Fish Fact Family Cards
- 3. Shuffle the cards
- 4. Deal 5 cards to each player and place the remainder in the middle
- 5. Players look for any matches (it takes 4 cards to match—3 x 2 = 6, 2 x3 = 6, 6 \div 3 = 2, and 6 \div 2 = 3.
- 6. Player 1 then asks one of the other players for a fact family match—saying "Do you have a fact family card for 3 x 2 = 6? The specific player asked must give any matching card to the Player asking.
- 7. If Player 1 gets a match then he/she may ask again, if not, then he/she must go fish.
- 8. Player 2 and Player 3 continue in the same way
- 9. Game is over when all cards are matched

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"?

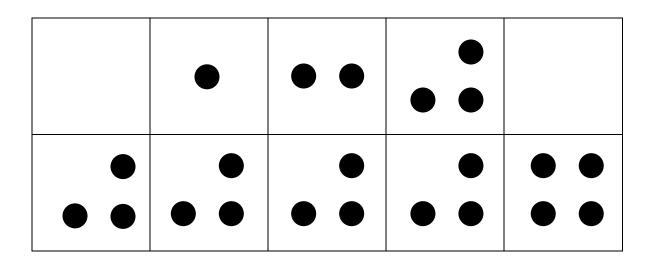
What advice would you give to a "new" student getting ready to do this activity.

- 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.



Double 9 Dominoes

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3rd Grade Fact Family Go Fish

2 x 8 =	8 x 2 =	16 ÷ 2 = 8	16 ÷ 8 = 2
3 x 5 = 15	5 x 3 = 15	15 ÷ 3 = 5	15 ÷ 5 = 3
4 x 6 = 24	6 x 4 = 24	24 ÷ 4 = 6	24 ÷ 6 = 4
3 x 7 = 21	7 x 3 = 21	21 ÷ 3 = 7	21 ÷ 7 = 3

6 x 9 = 54	9 x 6 = 54	54 ÷ 6 = 9	54 ÷ 9 = 6
4 x 8 = 32	8 x 4 = 32	32 ÷ 4 = 8	32 ÷ 8 = 4
4 x 9 = 36	9 x 4 = 36	36 ÷ 4 = 9	36 ÷ 9 = 4
6 x 7 = 42	7 x 6 = 42	42 ÷ 6 = 7	42 ÷ 7 = 6

9 x 5 = 45	5 x 9 = 45	45 ÷ 9 = 5	45 ÷ 5 = 9
3 x 4 = 12	4 x 3 = 12	12 ÷ 3 = 4	12 ÷ 4 = 3
4 x 7 = 28	7 x 4 = 28	28 ÷ 4 = 7	28 ÷ 7 = 4
3 x 9 = 27	9 x 3 = 27	27 ÷ 3 = 9	27 ÷ 9 = 3

5 x 2 = 10	2 x 5 = 10	10 ÷ 5 = 2	10 ÷ 2 = 5
2 x 9= 18	9 x 2 = 18	18 ÷ 2 = 9	18 ÷ 9 = 2
3 x 6 = 18	6 x 3 = 18	18 ÷ 3 = 6	18 ÷ 6 = 3
6 x 8 = 48	8 x 6 = 48	48 ÷ 6 = 8	48 ÷ 8 = 6



7 x 9 = 63	9 x 7 = 63	63 ÷ 7 = 9	63 ÷ 9 = 7
2 x 4 = 8	4 x 2 = 8	8 ÷ 2 = 4	8 ÷ 4 = 2



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Which Is Larger?
Focus:	Multiplication

Materials:

White boards Vocabulary Notebooks

Crayolas dice (6-sided and 12-sided for each pair)

Socks (for erasers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. We have spent several days working with multiplication. What do you know about multiplication? What do you know about division? What is a quotient? What is a product? What is sip counting? What is repeated addition? When would it make sense to use multiplication in the real world?

Content (the "Meat")

Problem of the Day

Joe needs to add 8 buttons to each of 9 shirts. How many buttons will she need in all? Write a number sentence and draw a picture of your answer.

Fact Practice Fact Family

A Fact Family is 3 numbers which have a relationship in addition and subtraction. For example, the number 9, 4, and 13 have a particular relationship in math. This family has four members:

9 + 4 = 13

4 + 9 = 13

13 - 9 = 4

13 - 4 = 9

Students should roll 2 dice and create a Fact Family by writing the members of the family on the white board. Student should roll a total of 5 times, creating 5 Fact Families

*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.



Math Vocabulary

Word for Today: divisor

Description: The term divisor refers to the number that is divided into another number. In the problem 48 divided by 6, the divisor is 6. This is one way that the problem could be written: $48 \div 6 =$. What is the divisor in the following problems: $56 \div 8$, $4 \div 8$, and $12 \div 3$. Create an entry in your Vocabulary Notebook for the term divisor.

Vocabulary Notebook Sample:

New Word	My Description
divisor	Multiplication, product, factor, division, dividend, divisor, quotient
Personal Connection	Drawing
When we have pizza and it has 10 pieces and there are 5 of us, 5 is the divisor.	10 ÷ 5 = 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.

Activity Multiplication

The best way to learn your multiplication facts is to practice, practice, practice. The more you practice the easier it gets.

Which Is Larger Directions:

- 1. Divide students into pairs
- 2. Give each pair a deck of cards with the jokers and face cards removed
- 3. Shuffle the deck and place it in the center of the players
- 4. Player 1 draws two cards, multiplies the numbers and says the product
- 5. Player 2 does the same
- 6. Players then compare the products, the player with the greater product wins the cards
- 7. Play continues until all of the cards are with one player or until 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.

- 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:	3 rd Grade
Lesson Title:	Which Is Larger? 2
Focus:	Multiplication

Materials:

White boards Vocabulary Notebooks

Cravolas Deck of cards

Socks (use as erasers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. We have spent several days working with multiplication. What do you know about multiplication? What do you know about division? What is a quotient? What is a product? What is sip counting? What is repeated addition?

Content (the "Meat")

Problem of the Day

Tony has 7 equal groups of marbles. If he has 56 marbles altogether, how many marbles are in each group? Solve the problem by writing a number sentence.

Fact Practice Bump It Up! Add A Zero

- 1. Divide students into pairs
- 2. Give each pair a white board and a deck of cards (without face cards, jokers, or 10s)
- 3. The object of this fact practice is to sum numbers until you reach 1,000.
- 4. Student draws 2 cards, adds the value of the cards together, multiplies by ten and writes the total on the sheet.
- 5. It is not the other person's turn to do the same
- 6. When play returns to the first player, the process is repeated, although this time, the totals are added together.
- 7. First person to 1,000 wins.
- 8. Example: Player draws a 7 and a 4. Total is 11. Multiply by 10 (add the zero) equals 110. Next turn, player draws a 3 and a 2 which totals 5. Multiply by 10 and I now add 50 to 110 for a total of 160.

*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.



Math Vocabulary

Word for Today: dividend

Description: The term dividend refers to the number that you divide the divisor into. The dividend represent the total number that you have that you are going to separate into equal groups. In the problem 48 divided by 6, the number 48 is the dividend. It can be written this way: $48 \div 6 = 8$. What is the dividend in these problems: $72 \div 9$; $14 \div 7$; and $27 \div 3$? Create the entry for the term "dividend" in the Vocabulary Notebook with a peer.

Vocabulary Notebook Sample:

New Word	My Description
dividend	When you divide, the dividend is the total that you start with
Personal Connection	Drawing
I have 96 cupcakes that I am dividing between 24 people; each one will get 4. 96 is the dividend in my problem.	96 ÷ 24 = 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 Multiplication

The best way to learn your multiplication facts is to practice, practice, practice. The more you practice the easier it gets.

Which Is Larger

Directions:

- 1. Divide students into pairs
- 2. Give each pair a deck of cards with the jokers and face cards removed
- 3. Shuffle the deck and place it in the center of the players
- 4. Player 1 draws two cards, multiplies the numbers and says the product
- 5. Player 2 does the same
- 6. Players then compare the products, the player with the greater product wins the cards
- 7. Play continues until all of the cards are with one player or until time is called.

Note: When all cards have been drawn the individual player may shuffle his cards and continue to 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 was a second or second	ve did today.	
Did we achieve our of		
	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:	3 rd Grade
Lesson Title:	Student Activity Choice
Focus:	Review

Materials:

Game Boards and materials from this week.

Prizes (these can be time, a leadership role, opportunities to be the "teacher"

Opening

State the objective

Today we are going to have fun playing a game. Students will be able to choose from the games learned in the past two weeks.

Content (the "Meat")

teams

Activity

Today is review day. Students will be able to select from the Multiplication Games you played for the last 10 days. Ask students to select from:

Skip Counting Four in a Row

Multiplication War

Jeopardy

Go Fish

Which Is Larger?

Closing

Review

Say:

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

- 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:	3 rd Grade
Lesson Title:	Product Practice
Focus:	Multiplication

Materials:

White boards Decks of cards

Crayolas Vocabulary Notebooks

Socks Activity at the end of this lesson plan

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operation of multiplication.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What do you know about multiplication? When would you use multiplication instead of addition? If addition and subtraction are reciprocal, what is the reciprocal of multiplication? What is skip counting? What are multiples of 4?

Contont (the "Mest")

Content (the "Meat")				
Problem of the Day	*Activity → Teachable Moment(s) <i>throughout</i>			
If Randy sold 34 T-Shirts and Martha sold 53 T-Shirts, how many shirts did Betty sell if she sold more T-Shirts than Randy but less than Martha?	During the lesson check in with students repeatedly.			
Which of the following numbers of shirts sold is possible? Explain how you know.	Check in about what is happening and what they are			
30, 60, 49, 55	thinking.			
Fact Practice Addition War	Take advantage of any teachable moments.			
 Divide students into pairs. Give each pair a deck of cards without face cards and jokers. Shuffle the deck and divide the cards evenly between the two players On go, the players turn over the cards at the same time Students add the 2 numbers that have been turned up First person to give the answer either wins the cards because the answer is correct, or has to turn over 2 cards because he/she gave the wrong answer At the end of round, students may reshuffle the pile of cards that they have Play can continue until one player has all cards or time has called 	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.			
Math Vocabulary	It is important to review			



Word for Today: skip counting

Description: The term skip counting is used to describe counting by a number other than 1 and leaving out some of the numbers that don't fit the pattern. One of the most common ways to count is by 10's. We say 10, 20, 30, 40, 50, 60, 70 80, 90, and 100. Another common way to skip count is to count by 5's. Right now think about the numbers you would say if you were skip counting by 5's. Think about what you would say if you were skip counting by 3's.

Review the entry in your Vocabulary Notebook for the term "skip counting". Share with a friend what the term means. Give an example.

Vocabulary Notebook Sample:

New Word	My Description
skip counting	When you skip count you don't say every number, you would say every third number if you are saying multiples of 3.
Personal Connection	Drawing
If I am skip counting by 4s, I would say 4, 8, 12, 16, 20	<u> </u>

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

Multiplication

Multiplication is repeated addition. It is counting by numbers like 3, 4, 6, 7, 8, and 9 (you already know how to count by 2's, 5's, and 10's). It is adding the same number over and over. In the problem $3 \times 5 =$ you are being asked to add 3 to itself 5 times. You could do that by saying 3 + 3 + 3 + 3 + 3 = 15. You could also get that by saying the first five multiples of 3 which are

3, 6, 9, 12, 15. The answer to 3 x 5 is 15. The reason we memorize these facts is so our brain can be thinking about other things that will be involved in the multiplication work we are doing.

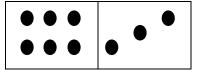
Write several problems on the board and have students provide the answer to the problems.

Product Practice Directions:

- 1. Divide students into pairs.
- 2. Give each pair a set of Double 6 or Double 9 Dominoes.
- 3. Place dominoes face down between the pair.
- 4. Player 1 draws a domino and multiplies the dots on either end, saying the product.

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. If the student drew this domino, the problem would be 6 x 3 for an answer of 18.
- 6. If Player gives the correct answer (within 15 seconds), he/she keeps the domino and Player 2 takes his/her turn. If Player cannot provide the answer, then the domino is returned to the pile.

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" player getting ready to play this game so he/she could get all the blocks are completed.

- 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.



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:	3 rd Grade
Lesson Title:	Product Practice 2
Focus:	Multiplication

Materials:

White boards Decks of cards

Crayolas Vocabulary Notebooks

Socks (for erasers) Activity at the end of this lesson plan

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operation of multiplication.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What do you know about multiplication? When would you use multiplication instead of addition? If addition and subtraction are reciprocal, what is the reciprocal of multiplication? What is skip counting? What are the first 5 multiples of 8? Of 9? Of 4?

Content (the "Meat")	
Problem of the Day	
Solve this number sentence:	
467 + 389 =	D
Write a story to go with it.	W
Fact Practice	С
Foreheader	h

- 1. Divide students into trios. Give each trio a deck of cards without face cards and jokers.
- 2. Shuffle the deck and give all of the cards to the referee who will be "judging" the contest
- 3. On go, players are each handed a card by the referee and **WITHOUT** looking, put the card face out on his/her forehead
- 4. The referee adds the two numbers together and states the answer
- 5. Each player looks at the other person's exposed number and names his/her own number
- **6.** Person who wins (accuracy and time), collects both cards
- 7. Play continues until all cards are gone.
- **8.** Players can repeat play (if there is another time) with each other so each has an opportunity to be both a player and referee

*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.



Math Vocabulary

Word for today: multiples

Description: The term, multiples, refers to the number you get when you multiply numbers together. For example, the multiples of 3 are 3, 6, 9 12, 15, 18, 21. You would get these numbers by multiplying 3×1 , 3×2 , 3×3 , 3×4 , 3×5 , 3×6 , 3×7 . Knowing the multiples of a number allows you to understand how different numbers are related. For example a common point for the numbers 3 and 4 are 12, 24, 36 and so on. You can know this if you know what the multiples are.

Review the entry for the word "multiples" in your Vocabulary Notebook. Talk with a friend about the term. Give an example of multiples.

Vocabulary Notebook Sample:

New Word	My Description
multiples	The numbers you get when you multiply by a specific number: 2, 4, 6, 8, 10 are multiples of 2
Personal Connection	Drawing
I have socks in multiples of 2.	A A V

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 Multiplication

Multiplication

Multiplication is repeated addition. It is counting by numbers like 3, 4, 6, 7, 8, and 9 (you already know how to count by 2's, 5's, and 10's). It is adding the same number over and over. In the problem $3 \times 5 =$ you are being asked to add 3 to itself 5 times. You could do that by saying 3 + 3 + 3 + 3 + 3 + 3 = 15. You could also get that by saying the first five multiples of 3 which are

3, 6, 9, 12, 15. The answer to 3×5 is 15. The reason we memorize these facts is so our brain can be thinking about other things that will be involved in the multiplication work we are doing.

Write several problems on the board and have students provide the answer to the problems.

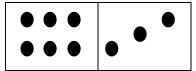
Product Practice Directions:

- 1. Divide students into pairs.
- 2. Give each pair a set of Double 6 or Double 9 Dominoes.

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. Place dominoes face down between the pair.
- 4. Player 1 draws a domino and multiplies the dots on either end, saying the product.



- 5. If the student drew this domino, the problem would be 6 x 3 for an answer of 18.
- 6. If Player gives the correct answer (within 15 seconds), he/she keeps the domino and Player 2 takes his/her turn. If Player cannot provide the answer, then the domino is returned to the pile.
- 7. Play is over when one player has 4 tokens in a row.

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:	3 rd Grade
Lesson Title:	What's the Product?
Focus:	Multiplication

Materials:

White boards Vocabulary Notebooks Activity at end of this lesson plan

Crayolas Socks (erasers for white board)

Dice Cards(remove face cards, use the joker as a zero)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice multiplication.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What do you know about multiplication? When would you use multiplication instead of addition? When you add you start with the numbers in the ones column. Where do you think you would start when you are multiplying numbers that have more than one digit. Write a recipe for multiplication of 2 digits by 1 digit.

Content (the "Meat")

Problem of the Day

Sally surveyed her friends and discovered the following:

Judy's, Joni's, and Jessica's favorite color is green.

Mark 's and Jordan's favorite color is blue.

Jack's, Lorna's, and Mollie's favorite color is purple.

Sally's and Mary's favorite color is pink.

What is the best way for Sally to show the results of her survey?

Fact Practice

Spokes on a Wheel

- 1. Divide students into pairs
- 2. On a white board, student draws a small circle with 9 spokes coming out of it (should look like a bicycle tire)
- 3. Have students choose to put a 6, 7 or 8 in the center circle
- 4. Student rolls two dice and adds the pips (dots)
- 5. Taking this total, student writes a math problem on one of the spokes (eg. 7 is in the circle and students rolls a 3 and 5 which totals 8. The spoke equation would look like 7 + 8 = 15
- 6. Process continues until all spokes have an equation

*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.



Math Vocabulary

Word for today: multiplication

Description: Multiplication is a term that refers to the idea of repeated addition. In the problem 3×4 , you are really being asked to add 4 + 4 + 4 = 12 and come up with the answer of 12. While that may be relatively easy when you are repeatedly adding 4, if you have the multiplication problem 347×296 , the thought of adding 347 a total of 296 times is daunting. Multiplication gives you a way to do this in a simplified fashion.

Review your Vocabulary Notebook entry for the term "multiplication". Talk with a partner about the term. Share with them when you would use multiplication.

Vocabulary Notebook Sample:

New Word	My Description
multiplication	A fast was to add the same number for a certain number of times.
Personal Connection	Drawing
Multiplication is easier that subtraction.	5 x 4 = 20

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 Multiplication

Multiplication

Learning the multiplication facts makes it easier to do multiplication problems that look like this:

32 x 4

This problem is an example of two digits (the 32) times 1 digit (the 4). When multiplying problems like this you first multiply the digits that are in the ones place, in this case 2×4 which equals 8 and you write the 8 in the ones place. (If the product was a two digit number, the number in the ones place would be written in the ones place, and the number in the tens place will be added to the product of the multiplier (in the problem above the 4) and the digit in the tens place. In the problem above, 4×3 equals 12. The whole number is written because there are no digits in the hundreds place.

32 <u>x 4</u>

Work through a minimum of 5 problems on the board with the students. Be sure to talk through what you are thinking and ask students to help you solve the problems.

What's The Product?

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 What's The Product? game board and deck of cards, white board, and some sort of marker.
- 3. Shuffle the cards and place face down next to the game board.
- 4. Player 1 draws the top card, completes the multiplication, finds the answer on the game board and covers it with a token.
- 5. Player 2 continues in the same manner
- 6. Game is over when all products are covered.

	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.



3rd Grade—What's The Product?

12	64	70	81	57	40
<u>x 3</u>	<u>x 2</u>	<u>x 7</u>	<u>x 6</u>	<u>x 1</u>	<u>x 8</u>
24	30	71	80	10	42
<u>x 2</u>	<u>x 9</u>	<u>x 5</u>	<u>x 6</u>	<u>x 6</u>	<u>x 3</u>
71	25	52	50	36	71
<u>x 6</u>	<u>x 1</u>	<u>x 3</u>	<u>x 4</u>	<u>x 1</u>	<u>x 8</u>
21	11	71	66	30	24
<u>x 6</u>	<u>x 5</u>	<u>x 8</u>	<u>x 1</u>	<u>x 6</u>	<u>x 2</u>
11	54	63	91	42	32
<u>x 5</u>	<u>x 2</u>	<u>x 2</u>	<u>x 3</u>	<u>x 4</u>	<u>x 3</u>



3rd Grade What's The Product Game Board

96	168	273	126		55
36		48	270		128
48	180	66	568	55	126
490		355	480		486
426	25	156	200	36	568
328		60	126	108	57



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	What's the Product? 2
Focus:	Multiplication

Materials:

White boards Vocabulary Notebooks

Cravolas dice

Socks (for erasers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? When you multiply a 2 digit number, which number do you start with? How do you know? What do you multiply second? How is this like addition?

Content (the "Meat")

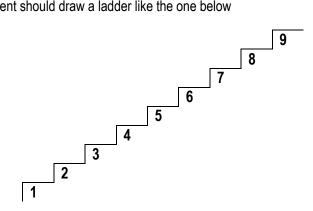
Problem of the Day

Joe has been on the basketball team for 49 days. Lee has been on the team for 5 weeks and 3 days. Josh has been on the basketball team for 8 weeks. Who's been on the team the longest? Who's been on the team the shortest amount of time?

Fact Practice

Addition Ladder

- 1. Give each student a white board (include marker or crayola)
- 2. Student should draw a ladder like the one below



3. Have student roll 2 dice, total the pips and then add that number to each of 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 auestions 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.



numbers in the ladder, writing the sum to the right of the number

Math Vocabulary

Word for Today: repeated addition

Review your entry for repeated addition and explain to a partner why multiplication is much easier.

Vocabulary Notebook Sample:

New Word	My Description
repeated addition	Add the same number together over and over, 3 + 3 + 3 + 3 + 3 = 3 x 5
Personal Connection	Drawing
Multiplication is really just repeated addition.	3+3+3+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 Multiplication

Multiplication

Learning the multiplication facts makes it easier to do multiplication problems that look like this:

32 x 4

This problem is an example of two digits (the 32) times 1 digit (the 4). When multiplying problems like this you first multiply the digits that are in the ones place, in this case 2 x 4 which equals 8 and you write the 8 in the ones place. (If the product was a two digit number, the number in the ones place would be written in the ones place, and the number in the tens place will be added to the product of the multiplier (in the problem above the 4) and the digit in the tens place. In the problem above, 4 x 3 equals 12. The whole number is written because there are no digits in the hundreds place.

32 <u>x 4</u>

Work through a minimum of 5 problems on the board with the students. Be sure to talk through what you are thinking and ask students to help you solve the problems.

What's The Product?

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 What's The Product? game board and deck of cards, white board, and some sort of marker.
- 3. Shuffle the cards and place face down next to the game board.
- 4. Player 1 draws the top card, completes the multiplication, finds the answer on the game board and covers it with a token.
- 5. Player 2 continues in the same manner
- 6. Game is over when all products are covered.

	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.



3rd Grade—What's The Product?

12	64	70	81	57	40
<u>x 3</u>	<u>x 2</u>	<u>x 7</u>	<u>x 6</u>	<u>x 1</u>	<u>x 8</u>
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71	25	52	50	36	71
<u>x 6</u>	<u>x 1</u>	<u>x 3</u>	<u>x 4</u>	<u>x 1</u>	<u>x 8</u>
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11	54	63	91	42	32
<u>x 5</u>	<u>x 2</u>	<u>x 2</u>	<u>x 3</u>	<u>x 4</u>	<u>x 3</u>



3rd Grade What's The Product Game Board

96	168	273	126		55
36		48	270		128
48	180	66	568	55	126
490		355	480		486
426	25	156	200	36	568
328		60	126	108	57



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Simply Multiply
Focus:	Multiplication

Materials:

White boards Vocabulary Notebooks
Crayolas Deck of Cards for each pair

Activity at the end of this lesson plan Socks (use as erasers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? Multiplication is a way of doing repeated addition. When you are adding, if a pair of numbers adds up to more than a single digit, what do you do? How could you apply that information to multiplication?

Content (the "Meat")

Problem of the Day

Josh collected 1,567 cans. Mark collected 1,672 cans. How many cans did they collect together? How do you know?

Fact Practice

Target

- 1. Divide students into trios
- 2. Each trio needs a deck of cards without face cards and jokers
- 3. Place the cards face up in a TicTac Toe Grid
- 4. Turn up a 10th card which will be to the side and becomes the target number (aces count as 1)
- 5. Each player makes an equation with some or all of the numbers in the grid to equal the target number. Students may add or subtract.
- 6. Each card may be used only one time in the equation
- 7. As the cards are being picked up, the player must say the equation aloud—for example if the target card is 10, then I could say 6 + 4 = 10, and pick up the 6 and the 4
- 8. After one player finishes his/her turn, then the cards taken are replaced by cards from the remaining deck

*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.



9. Player with the most cards at the end of the game win

Math Vocabulary

Word for today: regrouping

Description: Regrouping is a mathematical term that describes what you do when you have a total that is more ones, tens, hundreds, etc. than nine. If you have a total that is more units than nine, the part of the number that is in the tens place (or hundreds, or wherever it may be) **MUST** be moved to that column.

Review your Vocabulary Notebook for the term regrouping. Discuss this process with your friend

Vocabulary Notebook Sample:

New Word	My Description		
regroup	Getting digits in a math problem to be in the place value column correctly		
Personal Connection	Drawing		
When you multiply 58 x 3, 3 x 8 = 24, you must regroup and move the 2 to the tens column and be ready to add it in.	58 <u>X3</u> 174		

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

Multiplication

Learning the multiplication facts makes it easier to do multiplication problems that look like this:

34 <u>x 4</u>

This problem is an example of two digits (the 34) times 1 digit (the 4). When multiplying problems like this you first multiply the digits that are in the ones place, in this case 4×4 equals 16 and you write the 6 in the ones place. Since the product is a two digit number, the number in the ones place is written in the ones place, (in this case the 6) and the number in the tens place (in this case a 1) will be added to the product of the multiplier (in the problem above the 4) and the digit in the tens place. In the problem above, 4×3 equals 12. To the 12 you must ADD the 1 from the 16, which is adding 1 ten. The whole number is written because there are no digits in the hundreds place.

34 <u>x 4</u>

Work through a minimum of 5 problems on the board with the students. Be sure to talk through what you are thinking and ask students to help you solve the problems. Remember that the number in the 10s place (from the multiplication of the digits in the ones place) is a + #, not a multiplication number.

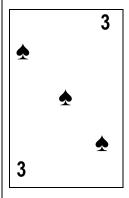
Simply Multiply

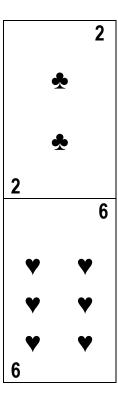
Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



Directions:

- 1. Divide students into pairs.
- 2. Give each pair a deck of playing cards. Remove the face cards, jokers, and tens from the deck.
- 3. Shuffle the deck an put between the two players.
- 4. Player 1 draws 3 cards. He/she then places the two of the cards to make a 2 digit multiplicand, and the third card becomes the multiplier.





- 5. The problem then is 32×6 . Player 1 multiplies the problem. If correct, he/she keeps the cards and then it is Player 2s turn.
- 6. Game is over when all cards have been used.



	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:	3 rd Grade
Lesson Title:	Simply Multiply 2
Focus:	Multiplication

Materials:

White boards Vocabulary Notebooks Materials at end of lesson plan
Crayolas 12-sided dice for each pair Deck of Card for every 2 students

Number Hunt Work Sheet Socks (for erasers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? What do you know about multiplication? What do you do when you are multiplying and the product is 10 or more? How is that like addition? Why do you think that this is true?

	Content (the "Meat")			
	Problem of the Day	*Activity → Teachable Moment(s) throughout		
Jordan nee	ds to solve the problem 534 + 92 + 509. What is the sum? How do you know? Fact Practice unt	During the lesson check in with students repeatedly. Check in about what is happening and what they are		
1. 2. 3. 4. 5. 6. 7.	Divide students into pairs Each pair needs a Number Hunt sheet (attached to this lesson plans) Player rolls two, 12-sided dice. Player adds or subtracts the two numbers. If the number is not yet covered, then player may cover the number. Next player repeats steps 1-3. Winner is determined by who has the most numbers covered.	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.		
	Math Vocabulary	When possible, engage students in a "teach to learn" opportunity and have the student become the teacher. It is important to review academic math vocabulary		



Word for Today: product

Description: The term product is used to describe the answer that you get when you multiply 2 numbers together. The product of 3×4 is 12. What is the product of 5×6 ? Of 3×8 ? Of 6×2 ?

Review your entry for the term product in your Vocabulary Notebook. Discuss the term with a peer. Talk about what happens if you need to regroup in writing the product.

Vocabulary Notebook Sample:

New Word	My Description
product	When you multiply numbers you end up with a product as the answer.
Personal Connection	Drawing
The product of 23 x 4 = 92.	92

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 Multiplication

Multiplication

Learning the multiplication facts makes it easier to do multiplication problems that look like this:

34 x 4

This problem is an example of two digits (the 34) times 1 digit (the 4). When multiplying problems like this you first multiply the digits that are in the ones place, in this case 4×4 equals 16 and you write the 6 in the ones place. Since the product is a two digit number, the number in the ones place is written in the ones place, (in this case the 6) and the number in the tens place (in this case a 1) will be added to the product of the multiplier (in the problem above the 4) and the digit in the tens place. In the problem above, 4×3 equals 12. To the 12 you must ADD the 1 from the 16, which is adding 1 ten. The whole number is written because there are no digits in the hundreds place.

34 <u>x 4</u> 136

Work through a minimum of 5 problems on the board with the students. Be sure to talk through what you are thinking and ask students to help you solve the problems. Remember that the number in the 10s place (from the multiplication of the digits in the ones place) is a + #, not a multiplication number.

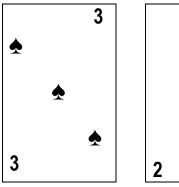
Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

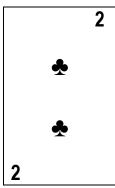


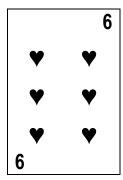
Simply Multiply

Directions:

- 1. Divide students into pairs.
- 2. Give each pair a deck of playing cards. Remove the face cards, jokers, and tens from the deck.
- 3. Shuffle the deck an put between the two players.
- 4. Player 1 draws 3 cards. He/she then places the two of the cards to make a 2 digit multiplicand, and the third card becomes the multiplier.







- 5. The problem then is 32 x 6. Player 1 multiplies the problem. If correct, he/she keeps the cards and then it is Player 2s turn.
- 6. Game is over when all cards have been used.



	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.



Number Hunt

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

Number Hunt

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



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Rolling Along
Focus:	Multiplication

Materials:

White boards Vocabulary Notebooks dice

Crayolas deck of cards, no face cards or jokers for math fact practice

Activity at the end of the lesson plan Socks (use as erasers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? Multiplication and division are reciprocal processes. Multiplication is a simplified way of adding the same number repeatedly. Multiplying requires you to know the multiples of numbers. What are the multiples of 9? What are the multiples of 3?

Content (the "Meat")

Problem of the Day

Use the digits 2, 3, 4, 6, 8, and 9 to create an addition problem. Write the problem and then write a word problem to show the addition problem you made.

Fact Practice

Draw!

- 1. Divide students into pairs and give each pair a deck of cards
- 2. Remove the face cards and jokers from the deck of cards.
- 3. Shuffle the deck.
- 4. Decide who will go first.
- 5. First player draws two cards.
- 6. Student adds or subtracts the cards.
- 7. Student writes his/her problem on the white board, writing a complete number sentence.
- 8. Students take turns drawing cards and creating problems.

*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.



Math Vocabulary

Word for Today: factors

Description: The term factor is used to describe the numbers that you multiply together in a multiplication problem to get a product. Some numbers have quite a few factors while others only have 2. For example, 7 has only two factors: 1 and 7. However 36 has many factors: 1, 36, 2, 18, 3, 12, 3, 9, 6 and 6. Name some other numbers that have only two factors (1 and themselves) and some that have more that those two factors.

Review your entry of the term "factors" in your Vocabulary Notebook. Talk with a peer about the term "factors". Write several multiplication problems. Identify the factors.

Vocabulary Notebook Sample:

New Word	My Description
factors	The numbers you multiply together to get a product.
Personal Connection	Drawing
My age is the product of 2 factors: 2 and 5.	$2 \times 5 = 10$

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 Multiplication

Multiplication

Learning the multiplication facts makes it easier to do multiplication problems that look like this:

34 x 4

This problem is an example of two digits (the 34) times 1 digit (the 4). When multiplying problems like this you first multiply the digits that are in the ones place, in this case 4×4 equals 16 and you write the 6 in the ones place. Since the product is a two digit number, the number in the ones place is written in the ones place, (in this case the 6) and the number in the tens place (in this case a 1) will be added to the product of the multiplier (in the problem above the 4) and the digit in the tens place. In the problem above, 4×3 equals 12. To the 12 you must ADD the 1 from the 16, which is adding 1 ten. The whole number is written because there are no digits in the hundreds place.

34 <u>x 4</u>

Work through a minimum of 5 problems on the board with the students. Be sure to talk through what you are thinking and ask students to help you solve the problems. Remember that the number in the 10s place (from the multiplication of the digits in the ones place) is a + #, not a multiplication 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.



Rolling Along

Directions:

- 1. Divide students into pairs.
- 2. Give each pair a Rolling Along game board and one 6 sided die.
- 3. Player 1 rolls the die and moves that many places on the game board.
- 4. Player 1 then completes the multiplication problem in the spot where he/she landed.
- 5. If Player's product is correct, then he/she stays on the spot, if not then he/she returns to his/her previous spot on the board.
- 6. Player 2 then continues in the same way.
- 7. Game is over when one player solves the problem in the last space on the board.

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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.



3rd Grade Rolling Along Game Board

Finish \downarrow					
18 <u>x 4</u>	38 <u>x 2</u>	27 <u>x 3</u>	13 <u>x 7</u>	14 <u>x 8</u>	19 <u>x 5</u>
					16 <u>x 8</u>
25 <u>x 2</u>	38 x 3	13 <u>x 9</u>	12 <u>x 6</u>	26 <u>x 3</u>	29 <u>x 2</u>
37 <u>x 2</u>					
46 <u>x 2</u>	16 <u>x 3</u>	14 <u>x 5</u>	12 <u>x 5</u>	24 <u>x 4</u>	16 <u>x 6</u>
					23 <u>x 4</u>
17 <u>x 5</u>	15 <u>x 9</u>	24 <u>x 3</u>	47 <u>x 2</u>	28 <u>x 3</u>	19 <u>x 4</u>
START 个					



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Rolling Along 2
Focus:	Multiplication

Materials:

White boards Vocabulary Notebooks dice

Cravolas Double 9 Dominoes

Activity at the end of this lesson plan

Socks (use for erasers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? What are multiples of 3? What are multiples of 7? What are multiples of 4? What are multiples of 10? What would you do first in the problem 64 x 8 =. What would you do second? How will you complete the problem?

Content (the "Meat")

Problem of the Day

At your school there are 93 3rd graders, 86 4th graders, and 74 5th graders. If the P.E. teacher ordered 225 basketballs, does he have enough for each student to have one? How do you know?

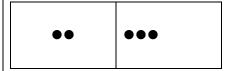
Fact Practice Spots and Dots

There is a master of Double 9 Dominos attached to this lesson plan. You will need 1 full set for each pair of students in your class. It is recommended that you duplicate on card stock and if possible, laminate for use again in the future.

Players sit across from each other.

Dominoes are between them, face (or spots) down.

Each student draws a domino and writes the addition problem on their white board, adding the numbers represented by the spots Example: Domino drawn is



Addition: 2 + 3 = 5

*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.



Math Vocabulary

Math term: digit

Description: The term digit refers to a symbol that is combined with other symbols to make a numeral. There are only 10 digits in our number system: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9. When you arrange these digits you can create any number.

Create an entry for the word digit in your Vocabulary Notebook.

Vocabulary Notebook Sample:

New Word	My Description
digit	The symbols we use to make numbers.
Personal Connection	Drawing
3,892 is a four digit number.	0, 1, 2, 3, 4, 5, 6, 7, 8, 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 Multiplication

Multiplication

Learning the multiplication facts makes it easier to do multiplication problems that look like this:

34 <u>x</u> 4

This problem is an example of two digits (the 34) times 1 digit (the 4). When multiplying problems like this you first multiply the digits that are in the ones place, in this case 4×4 equals 16 and you write the 6 in the ones place. Since the product is a two digit number, the number in the ones place is written in the ones place, (in this case the 6) and the number in the tens place (in this case a 1) will be added to the product of the multiplier (in the problem above the 4) and the digit in the tens place. In the problem above, 4×3 equals 12. To the 12 you must ADD the 1 from the 16, which is adding 1 ten. The whole number is written because there are no digits in the hundreds place.

34 <u>x 4</u> 136

Work through a minimum of 5 problems on the board with the students. Be sure to talk through what you are thinking and ask students to help you solve the problems. Remember that the number in the 10s place (from the multiplication of the digits in the ones place) is a + #, not a multiplication number.

Rolling Along

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 Rolling Along game board and one 6 sided die.
- 3. Player 1 rolls the die and moves that many places on the game board.
- 4. Player 1 then completes the multiplication problem in the spot where he/she landed.
- 5. If Player's product is correct, then he/she stays on the spot, if not then he/she returns to his/her previous spot on the board.
- 6. Player 2 then continues in the same way.
- 7. Game is over when one player solves the problem in the last space on the board.

	Closing
	Review
Say:	
 Please recap what we did today. 	
 Did we achieve our objectives? 	
	Debrief
Thurs NAME at a	

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"?

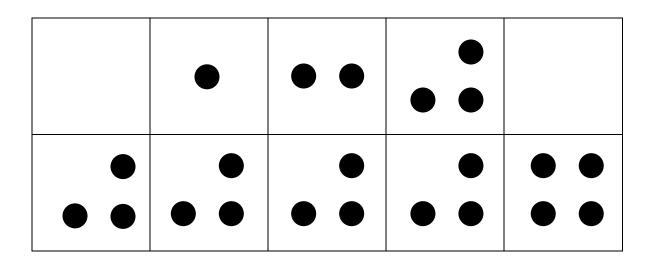
What advice would you give to a "new" student getting ready to do this activity.

- 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.



Double 9 Dominoes

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3rd Grade Rolling Along Game Board

Finish \downarrow					
18 <u>x 4</u>	38 <u>x 2</u>	27 <u>x 3</u>	13 <u>x 7</u>	14 <u>x 8</u>	19 <u>x 5</u>
					16 <u>x 8</u>
25 <u>x 2</u>	38 x 3	13 <u>x 9</u>	12 <u>x 6</u>	26 <u>x 3</u>	29 <u>x 2</u>
37 <u>x 2</u>					
46 <u>x 2</u>	16 <u>x 3</u>	14 <u>x 5</u>	12 <u>x 5</u>	24 <u>x 4</u>	16 <u>x 6</u>
					23 <u>x 4</u>
17 <u>x 5</u>	15 <u>x 9</u>	24 <u>x 3</u>	47 <u>x 2</u>	28 <u>x 3</u>	19 <u>x 4</u>
START 个					



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Divide It
Focus:	Division

Materials:

White boards Vocabulary Notebooks

Crayolas dice (6-sided and 12-sided for each pair)

Socks (for erasers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What do you know about division? When would you use division in the real world? What do you call the answer in a division problem? What are the two different ways you can write a division problem?

Content (the "Meat")

Problem of the Day

Look at the problem below and then write a story that matches the problem.

27 + 43 - 10

Fact Practice Fact Family

A Fact Family is 3 numbers which have a relationship in addition and subtraction. For example, the number 9, 4, and 13 have a particular relationship in math. This family has four members:

9 + 4 = 13

4 + 9 = 13

13 - 9 = 4

13 - 4 = 9

Students should roll 2 dice and create a Fact Family by writing the members of the family on the white board. Student should roll a total of 5 times, creating 5 Fact Families

*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.



Math Vocabulary

Word for Today: divisor

Description: The term divisor refers to the number that is divided into another number. In the problem 48 divided by 6, the divisor is 6. This is one way that the problem could be written: $48 \div 6 =$. What is the divisor in the following problems: $56 \div 8$, $4 \div 8$, and $12 \div 3$. Review the entry in your Vocabulary Notebook for the term divisor. Talk with a peer about this word and what it means.

Vocabulary Notebook Sample:

New Word	My Description
divisor	Multiplication, product, factor, division, dividend, divisor, quotient
Personal Connection	Drawing
When we have pizza and it has 10 pieces and there are 5 of us, 5 is the divisor.	10 ÷ 5 = 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.

Activity Division

Division

Division is the reciprocal of multiplication. Multiplication (like addition) is about totaling items together. Division is about taking a total and putting it into equal parts. Division can be accomplished by repeated subtraction, taking the same number from the total until you cannot make another equal group. In a division problem the total is called the dividend. The number that is divided into the total (the dividend) is called the divisor. The answer is called the quotient.

Division problems can be written in two ways:

Work several division problems on the board with students. Have the group stand up and divide them into different numbers of rows that each have 3, 4, or 5 students. This will help students understand what division is.

Divide It 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 Divide It game board and one 6 sided die.
- 3. Player 1 rolls the die and moves that many places on the game board.
- 4. Player 1 then completes the division problem in the spot where he/she landed.
- 5. If Player's quotient is correct, then he/she stays on the spot, if not then he/she returns to his/her previous spot on the board.
- 6. Player 2 then continues in the same way.
- 7. Game is over when one player solves the problem in the last space on the board.

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.



3rd Grade Divide It! Game Board

Finish ↓					
18 ÷ 2	12 ÷ 6	21 ÷ 7	27 ÷ 9	40 ÷ 5	18 ÷ 3
					15 ÷ 5
42 ÷ 7	24 ÷ 6	32 ÷ 4	27 ÷ 3	16 ÷ 2	63 ÷ 9
40 ÷ 8					
20 ÷ 5	64 ÷ 8	28 ÷ 4	10 ÷ 5	24 ÷ 8	36 ÷ 4
					21 ÷ 3
16 ÷ 4	54 ÷ 9	45 ÷ 5	56 ÷ 7	35 ÷ 5	32 ÷ 8
START A					



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Divide It 2
Focus:	Division

Materials:

White boards Vocabulary Notebooks

Cravolas Deck of cards

Socks (use as erasers) Dice

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. If you had 30 cookies and you wanted to share them with 5 others, what would you do? How would you be sure that everyone had the same number of cookies? What would you do if you had some left over, but not enough to go around? What mathematical operation would you use?

Content (the "Meat")

Problem of the Day

You are booking a reservation for a plane trip to San Francisco. You will be gone for 3 weeks. If you leave on the 5th of the month, what day will you come home?

S	M	Т	W	Т	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 Bump It Up! Add A Zero

- 1. Divide students into pairs
- 2. Give each pair a white board and a deck of cards (without face cards, jokers, or 10s)
- 3. The object of this fact practice is to sum numbers until you reach 1,000.
- 4. Student draws 2 cards, adds the value of the cards together, multiplies by ten and writes the total on the sheet.
- 5. It is not the other person's turn to do the same

*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.



- 6. When play returns to the first player, the process is repeated, although this time, the totals are added together.
- 7. First person to 1,000 wins.
- 8. Example: Player draws a 7 and a 4. Total is 11. Multiply by 10 (add the zero) equals 110. Next turn, player draws a 3 and a 2 which totals 5. Multiply by 10 and I now add 50 to 110 for a total of 160.

Math Vocabulary

Word for Today: dividend

Description: The term dividend refers to the number that you divide the divisor into. The dividend represent the total number that you have that you are going to separate into equal groups. In the problem 48 divided by 6, the number 48 is the dividend. It can be written this way: $48 \div 6 = 8$. What is the dividend in these problems: $72 \div 9$; $14 \div 7$; and $27 \div 3$? Review the entry for the term "dividend" in the Vocabulary Notebook with a peer. Discuss why knowing what this term means could help you in math.

Vocabulary Notebook Sample:

New Word	My Description
dividend	When you divide, the dividend is the total that you start with
Personal Connection	Drawing
I have 96 cupcakes that I am dividing between 24 people; each one will get 4. 96 is the dividend in my problem.	96 ÷ 24 = 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

acting out an equation).

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

right angle, multiple students

Activity Division

Division

Division is the reciprocal of multiplication. Multiplication (like addition) is about totaling items together. Division is about taking a total and putting it into equal parts. Division can be accomplished by repeated subtraction, taking the same number from the total until you cannot make another equal group. In a division problem the total is called the dividend. The number that is divided into the total (the dividend) is called the divisor. The answer is called the quotient.

Division problems can be written in two ways:

$$15 \div 3 = 5$$
Or
 5
 $3 \ 15$

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 division problems on the board with students. Have the group stand up and divide them into different numbers of rows that each have 3, 4, or 5 students. This will help students understand what division is.

Divide It

Directions:

- 1. Divide students into pairs.
- 2. Give each pair a Divide It game board and one 6 sided die.
- 3. Player 1 rolls the die and moves that many places on the game board.
- 4. Player 1 then completes the division problem in the spot where he/she landed.
- 5. If Player's quotient is correct, then he/she stays on the spot, if not then he/she returns to his/her previous spot on the board.
- 6. Player 2 then continues in the same way.
- 7. Game is over when one player solves the problem in the last space on the board.

		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.



3rd Grade Divide It! Game Board

Finish ↓					
18 ÷ 2	12 ÷ 6	21 ÷ 7	27 ÷ 9	40 ÷ 5	18 ÷ 3
					15 ÷ 5
42 ÷ 7	24 ÷ 6	32 ÷ 4	27 ÷ 3	16 ÷ 2	63 ÷ 9
40 ÷ 8					
20 ÷ 5	64 ÷ 8	28 ÷ 4	10 ÷ 5	24 ÷ 8	36 ÷ 4
					21 ÷ 3
16 ÷ 4	54 ÷ 9	45 ÷ 5	56 ÷ 7	35 ÷ 5	32 ÷ 8
START 小					



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Student Activity Choice
Focus:	Review

Materials:

Game Boards and materials from this week.

Prizes (these can be time, a leadership role, opportunities to be the "teacher"

Opening

State the objective

Today we are going to have fun playing a game. Students will be able to choose from the games learned in the past two weeks.

Content (the "Meat")

teams

Activity

Today is a review day. Students should select from the following list of activities:

Product Practice
What's The Product?
Simply Multiply
Rolling Along
Divide It!

Closing

Review

Say:

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

- 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:	3 rd Grade
Lesson Title:	Regrouping
Focus:	Addition

Materials:

White boards Decks of cards Dominoes (Double 9)

Crayolas Vocabulary Notebooks

Socks Activity at the end of this lesson plan

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operation of multiplication.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What do you know about regrouping? When would you use this process? For what reason do you regroup? Is this a process you can use in any operation?

Content (the "Meat")		
Problem of the Day	*Activity → Teachable Moment(s) throughout	
The train can carry 425 people at one time. 637 people bought a ticket. How many people will have to wait for the second train? How do you know?	During the lesson check in with students repeatedly.	
Fact Practice Addition War • Divide students into pairs. Give each pair a deck of cards without face cards and jokers.	Check in about what is happening and what they are thinking. Take advantage of any teachable moments.	
 Shuffle the deck and divide the cards evenly between the two players On go, the players turn over the cards at the same time Students add the 2 numbers that have been turned up First person to give the answer either wins the cards because the answer is correct, or has to turn over 2 cards because he/she gave the wrong answer At the end of round, students may reshuffle the pile of cards that they have 	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	
Play can continue until one player has all cards or time has called	students in a "teach to learn" opportunity and have the student become the teacher.	
Math Vocabulary Word for Today: addend	It is important to review academic math vocabulary	



Description: The term addend refers to the numbers you add together in an addition problem. When you are adding any column (ones, tens, hundred, thousands, and so on), and the tal in that column is ten or more, you must regroup, taking the number in the tens column to the column to the left and writing the numeral in the ones place underneath the column you are adding.

Review the entry in your Vocabulary Notebook for the term "addend". Share with a friend what the term means. Give an example.

Vocabulary Notebook Sample:

New Word	My Description
addend	the numbers you add together in an addition problem
Personal Connection	Drawing
In the addition problem, 6 + 9 = 15, the digits 6 and 9 are the addends	12+4=16

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 Regrouping

Addition

When you are adding, sometimes you will need to regroup. This means that the answer or sum of two numbers is more than ten. For example if you are adding 45 and 36, you begin with the ones column, adding the 5 and the 6 for a total of eleven. In the number 11, you have one unit or one, which goes underneath the ones column, and you have one ten which you carry over to the tens column. So the second addition problem would be 1 + 4 + 3 for a total of 81. This means that you write the tens above the tens column and then include it in the addition. You can also have a problem that has a tens column that adds up to ten or more in which case you move the tens to the hundreds column, continuing to add. Complete several problems on the board with the students. Be sure to use metacognition to share with the students what you are thinking as you complete the problem. When you are confident that the children know what to do, distribute the game.

Regrouping

Directions:

- 1. Divide students into pairs.
- 2. Give each pair a deck of cards, remove the face cards, tens, and jokers.
- 3. Shuffle the cards and place them face down in between the students.
- 4. Player one draws six cards and arranges them into a 3 digit + 3 digit problem. For example:

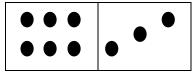
647 +396

- 5. He/she then finds the sum, using the white boards.
- 6. He/she shares his/her answer with Player 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.



- 7. Player 2 continues in the same way.
- 8. Play is complete when all cards have been used.



- 9. If the student drew this domino, the problem would be 6 x 3 for an answer of 18.
- 10. If Player gives the correct answer (within 15 seconds), he/she keeps the domino and Player 2 takes his/her turn. If Player cannot provide the answer, then the domino is returned to the pile.

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" player getting ready to play this game so he/she could get all the blocks are completed.

- 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:	3 rd Grade
Lesson Title:	Regrouping 2
Focus:	Addition

Materials:

White boards Decks of cards Dominoes (Double 9)

Crayolas Vocabulary Notebooks

Socks (for erasers) Activity at the end of this lesson plan

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operation of multiplication.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What do you know about regrouping? When would you use this process? For what reason do you regroup? Is this a process you can use in any operation? Create a problem that will require you to regroup. Share it with a peer.

Content (the "Meat")

Problem of the Day

Last year the Little League Baseball Team raised \$3,450 for rebuilding the team dugout. This year they raised \$4,275 for rebuilding the opposing team's dugout. If the price has remained the same, how much do they have left for trophies?

Fact Practice

Foreheader

- 1. Divide students into trios. Give each trio a deck of cards without face cards and jokers.
- 2. Shuffle the deck and give all of the cards to the referee who will be "judging" the contest
- 3. On go, players are each handed a card by the referee and **WITHOUT** looking, put the card face out on his/her forehead
- 4. The referee adds the two numbers together and states the answer
- 5. Each player looks at the other person's exposed number and names his/her own number
- **6.** Person who wins (accuracy and time), collects both cards
- 7. Play continues until all cards are gone.
- **8.** Players can repeat play (if there is another time) with each other so each has an opportunity to be both a player and referee

*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.



Math Vocabulary

Word for today: regroup

Description: The term, regroup refers to a process that you use when you are working an addition problem and the sum in any column is ten or higher. In this process the number in the ones place remains the ones place while the number in the tens column in the answer will be moved to the next column to the right.

Review the entry for the word "regroup" in your Vocabulary Notebook. Talk with a friend about the term. Give an example of multiples.

Vocabulary Notebook Sample:

New Word	My Description
regroup	when the total is ten or higher, you regroup to finish addition
Personal Connection	Drawing
27 + 18 requires that you regroup to get the correct sum of 45.	48 <u>+9</u> 57

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 Regrouping

Addition

When you are adding, sometimes you will need to regroup. This means that the answer or sum of two numbers is more than ten. For example if you are adding 45 and 36, you begin with the ones column, adding the 5 and the 6 for a total of eleven. In the number 11, you have one unit or one, which goes underneath the ones column, and you have one ten which you carry over to the tens column. So the second addition problem would be 1 + 4 + 3 for a total of 81. This means that you write the tens above the tens column and then include it in the addition. You can also have a problem that has a tens column that adds up to ten or more in which case you move the tens to the hundreds column, continuing to add. Complete several problems on the board with the students. Be sure to use metacognition to share with the students what you are thinking as you complete the problem. When you are confident that the children know what to do, distribute the game.

Regrouping

Directions:

- 1. Divide students into pairs.
- 2. Give each pair a deck of cards, remove the face cards, tens, and jokers.
- 3. Shuffle the cards and place them face down in between the students.
- 4. Player one draws six cards and arranges them into a 3 digit + 3 digit problem. For example:

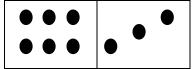
people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

Focus on having young

647



- 5. He/she then finds the sum, using the white boards.
- 6. He/she shares his/her answer with Player 2.
- 7. Player 2 continues in the same way.
- 8. Play is complete when all cards have been used.



- 9. If the student drew this domino, the problem would be 6 x 3 for an answer of 18.
- 10. If Player gives the correct answer (within 15 seconds), he/she keeps the domino and Player 2 takes his/her turn. If Player cannot provide the answer, then the domino is returned to the pile.

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:	3 rd Grade
Lesson Title:	Connect the Dots #1
Focus:	Subtraction

Materials:

White boards Vocabulary Notebooks

Activity at end of this lesson plan

Crayolas Socks (erasers for white board)

Dice Cards(remove face cards, use the joker as a zero)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice multiplication.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What do you know about subtraction? When you have a problem like this: 62 - 18 =, what do you need to do to be able to subtract in the ones column? Give several examples.

Content (the "Meat")

Problem of the Day

If the sum of two numbers is 138, and one number is 32 more than the other, what are the two numbers?

? + ? = 138

Fact Practice

Spokes on a Wheel

- 1. Divide students into pairs
- 2. On a white board, student draws a small circle with 9 spokes coming out of it (should look like a bicycle tire)
- 3. Have students choose to put a 6, 7 or 8 in the center circle
- 4. Student rolls two dice and adds the pips (dots)
- 5. Taking this total, student writes a math problem on one of the spokes (eg. 7 is in the circle and students rolls a 3 and 5 which totals 8. The spoke equation would look like 7 + 8 = 15
- 6. Process continues until all spokes have an equation

*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.



Math Vocabulary

Word for today: subtraction

Description: Subtraction is a term that refers to beginning with a certain amount and then taking a portion of that away and ending up with a difference. When you want to subtract, and the number that is in the subtrahend is larger than the number in the minuend in that place, you must regroup so you can complete the subtraction.

Review your Vocabulary Notebook entry for the term "subtraction". Talk with a partner about the term. Share with them when you would use subtraction with regrouping.

Vocabulary Notebook Sample:

New Word	My Description
subtraction	minus or take away
Personal Connection	Drawing
Subtraction reduces a number by another number.	52 <u>-37</u> 15

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

When you subtract you first subtract the digits in the right hand column or ones place. Once you have subtracting the ones, you will then subtract the tens, and then subtract in the hundreds.

For example:

678 -325

You would begin by subtracting 5 from 8, getting a difference of 3. You would then subtract 2 from 7, so now you are at 53. Finally you will subtract the 3 from the 6, making the difference of 353.

Work several problems on the board with students. Be sure to talk through each program. When you are pleased with the results, then give the students a game to play.

Connect the Dots #1

Directions:

- 1. Give each pair of students a Connect the Dots game Board. If you want to keep the game board, laminate it or place it in a sheet protector.
- 2. Working together, students complete the subtracting problem and connect the problem to the correct answer.
- 3. Students will be able to see a pattern emerge.
- 4. When pair is finished have them share with another pair.



	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"?

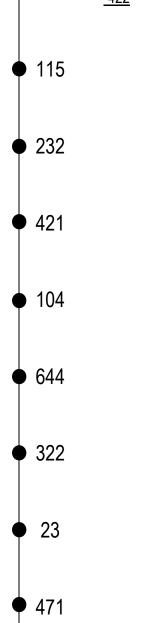
What advice would you give to a "new" student getting ready to do this activity.

- 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.



3rd Grade Connect the Dots #1





488	365	494	687
<u>-17</u>	<u>-342</u>	<u>-172</u>	<u>-43</u>

698	589	185	593
<u>-54</u>	<u>-267</u>	<u>-162</u>	<u>-122</u>



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Connect the Dots #2
Focus:	Subtraction

Materials:

White boards Vocabulary Notebooks

Cravolas dice

Socks (for erasers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What do you know about subtraction? When you have a problem like this: 62 - 18 =, what do you need to do to be able to subtract in the ones column? Give several examples.

Content (the "Meat")

Problem of the Day

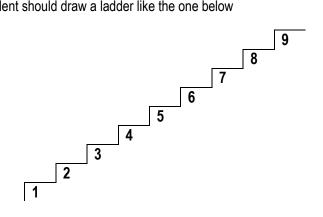
Create an in and out table using the rule "multiply by 3". Explain how you decided what numbers to use.

In			
Out			

Fact Practice

Addition Ladder

- 1. Give each student a white board (include marker or crayola)
- 2. Student should draw a ladder like the one below



3. Have student roll 2 dice, total the pips and then add that number to each of 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.



numbers in the ladder, writing the sum to the right of the number

Math Vocabulary

Word for Today: subtraction

Description: Subtraction is a term that refers to beginning with a certain amount and then taking a portion of that away and ending up with a difference. When you want to subtract, and the number that is in the subtrahend is larger than the number in the minuend in that place, you must regroup so you can complete the subtraction.

Review your Vocabulary Notebook entry for the term "subtraction". Talk with a partner about the term. Share with them when you would use subtraction with regrouping. Write three problems on your white board. Have your partner solve them.

Vocabulary Notebook Sample:

New Word	My Description
subtraction	minus or take away
Personal Connection	Drawing
Subtraction reduces a number by another number.	52 <u>-37</u> 15

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

When you subtract you first subtract the digits in the right hand column or ones place. Once you have subtracting the ones, you will then subtract the tens, and then subtract in the hundreds.

For example:

678

-325

You would begin by subtracting 5 from 8, getting a difference of 3. You would then subtract 2 from 7, so now you are at 53. Finally you will subtract the 3 from the 6, making the difference of 353.

Work several problems on the board with students. Be sure to talk through each program. When you are pleased with the results, then give the students a game to play.

Connect the Dots #2

Directions:

- 1. Give each pair of students a Connect the Dots game Board. If you want to keep the game board, laminate it or place it in a sheet protector.
- 2. Working together, students complete the subtracting problem and connect the problem to the correct answer.
- 3. Students will be able to see a pattern emerge.



4. When pair is finished have them share with another pair.	
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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?

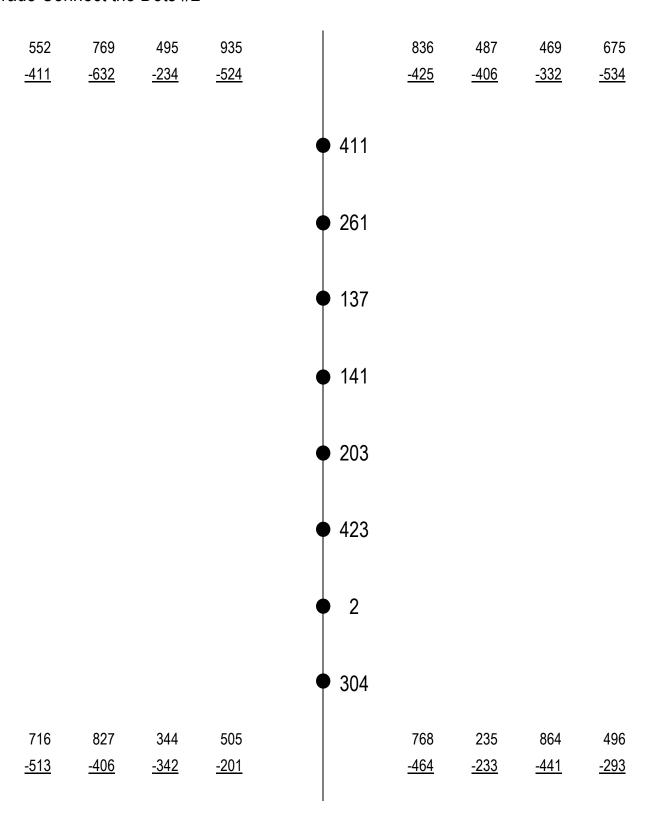
What opportunities might you have to do this same thing in the "real world"?

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.



3rd Grade Connect the Dots #2





Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Domino Subtraction
Focus:	Subtraction

Materials:

White boards Vocabulary Notebooks Dominoes

Crayolas Deck of Cards for each pair

Activity at the end of this lesson plan Socks (use as erasers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? When do you subtract? How are addition and subtraction linked? What do you call the different numerals in a subtraction problem?

Content (the "Meat")

Problem of the Day

Look at the bus schedule below. Does it take longer to get to LA or San Francisco?

То	Departs	Arrives
Los Angeles	8:00 a.m.	12:30 p.m.
San Francisco	9:00 a.m.	3:00 p.m.
Fresno	8:30 a.m.	11:30 a.m.

Fact Practice

Target

- 1. Divide students into trios
- 2. Each trio needs a deck of cards without face cards and jokers
- 3. Place the cards face up in a TicTac Toe Grid
- 4. Turn up a 10th card which will be to the side and becomes the target number (aces count as 1)
- 5. Each player makes an equation with some or all of the numbers in the grid to equal the target number. Students may add or subtract.
- 6. Each card may be used only one time in the equation
- 7. As the cards are being picked up, the player must say the equation aloud—for

*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.



- example if the target card is 10, then I could say 6 + 4 = 10, and pick up the 6 and the 4.
- 8. After one player finishes his/her turn, then the cards taken are replaced by cards from the remaining deck
- 9. Player with the most cards at the end of the game win

Math Vocabulary

Word for today: regrouping

Description: Regrouping is a mathematical term that describes what you do when you have a total that is more ones, tens, hundreds, etc. than nine or if you have a subtrahend that has a value in one column that is more that the minuend in that same place value. Regrouping allows you to translate tens into ones (like dimes into pennies), and hundreds into tens. Review your Vocabulary Notebook for the term regrouping. Discuss this process with your

Review your Vocabulary Notebook for the term regrouping. Discuss this process with your friend.

Vocabulary Notebook Sample:

New Word	My Description
regroup	Getting digits in a math problem to be in the place value column correctly
Personal Connection	Drawing
When you subtract 81- 37, you must regroup making the units 11 and the tens 7 before you subtract.	81 -37 44

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

When you are subtracting, you begin with the ones or units column first. If the bottom digit is greater than the top digit, you will need to regroup. Regrouping means that you take one of the tens, and instead of keeping the ten items as a group you separate them into ones. For example, if you needed 8 items and you only had a package of 10, you would need to open up the package of ten so you could take out 8 of the single units. As another example, if you needed 8 single items and you only had four, you would still need to break apart a ten. Once separated, you would have the ten you separated + the 4 you already had, so you would now have a total of 10 units plus 4 units from which you would subtract the 8 you needed, so you would have 6 units left over.

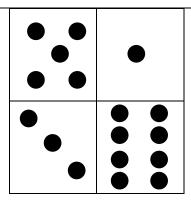
Work several 2 digit subtract subtraction problems that require the student to regroup on the board with the group. Use metacognition to share with the student what you are thinking as you solve the problem.

Domino Subtraction

Directions:

- 1. Divide student into pairs.
- 2. Give each pair a set of Double 9 dominoes and white boards.
- 3. Player 1 draws 2 dominoes and creates a subtraction problem:





4. The dominoes create the problem:

51 -38

- 5. When Player 1 is finished, he/she keeps the two dominoes and Player 2 continues play in the same way.
- 6. Play is over when all dominoes have been taken.

	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.
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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:	3 rd Grade
Lesson Title:	Domino Subtraction 2
Focus:	Subtraction

Materials:

White boards Vocabulary Notebooks Materials at end of lesson plan
Crayolas 12-sided dice for each pair Deck of Card for every 2 students

Number Hunt Work Sheet Socks (for erasers) Dominoes

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? When do you subtract? How are addition and subtraction linked? What do you call the different numerals in a subtraction problem?

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Problem of the Day

If Joni has 1 \$10 bill, 1 \$5 bill, 6 quarters, and 14 dimes, can he afford to buy a game that costs \$16.95? Tell how you know.

Fact Practice

Number Hunt

- 1. Divide students into pairs
- 2. Each pair needs a Number Hunt sheet (attached to this lesson plans)
- 3. Player rolls two, 12-sided dice.
- 4. Player adds or subtracts the two numbers.
- 5. If the number is not yet covered, then player may cover the number.
- 6. Next player repeats steps 1-3.
- 7. Winner is determined by who has the most numbers covered.

*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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Math Vocabulary

Word for Today: regrouping

Description: Regrouping is a mathematical term that describes what you do when you have a total that is more ones, tens, hundreds, etc. than nine or if you have a subtrahend that has a value in one column that is more that the minuend in that same place value.. Regrouping allows you to translate tens into ones (like dimes into pennies), and hundreds into tens. Review your Vocabulary Notebook for the term regrouping. Discuss this process with your friend.

Vocabulary Notebook Sample:

New Word	My Description
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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

When you are subtracting, you begin with the ones or units column first. If the bottom digit is greater than the top digit, you will need to regroup. Regrouping means that you take one of the tens, and instead of keeping the ten items as a group you separate them into ones. For example, if you needed 8 items and you only had a package of 10, you would need to open up the package of ten so you could take out 8 of the single units. As another example, if you needed 8 single items and you only had four, you would still need to break apart a ten. Once separated, you would have the ten you separated + the 4 you already had, so you would now have a total of 10 units plus 4 units from which you would subtract the 8 you needed, so you would have 6 units left over.

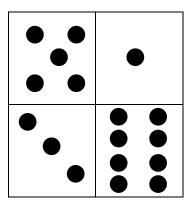
Work several 2 digit subtract subtraction problems that require the student to regroup on the board with the group. Use metacognition to share with the student what you are thinking as you solve the problem.

Domino Subtraction

Directions:

- 1. Divide student into pairs.
- 2. Give each pair a set of Double 9 dominoes and white boards.
- 3. Player 1 draws 2 dominoes and creates a subtraction problem:





4. The dominoes create the problem:

51 -38

- 5. When Player 1 is finished, he/she keeps the two dominoes and Player 2 continues play in the same way.
- 6. Play is over when all dominoes have been taken.

CI	osing
VI	ooning

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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- 4. Ask them to comment on something (if anything) they have learned today that was brand new to them.



Number Hunt

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

Number Hunt

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



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Math Magic
Focus:	Addition and Subtraction

Materials:

White boards Vocabulary Notebooks dice

Crayolas deck of cards, no face cards or jokers for math fact practice

Activity at the end of the lesson plan Socks (use as erasers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? How are addition and subtraction alike? How are they different? What does it mean to be a reciprocal process?

Content (the "Meat")

Problem of the Day

Grandma has 5 equal bags of radish seeds. If she has 75 seeds all together, how many seeds are in each bag? How do you know?

Fact Practice

Draw!

- 1. Divide students into pairs and give each pair a deck of cards
- 2. Remove the face cards and jokers from the deck of cards.
- 3. Shuffle the deck.
- 4. Decide who will go first.
- 5. First player draws two cards.
- Student adds or subtracts the cards.
- 7. Student writes his/her problem on the white board, writing a complete number sentence.
- 8. Students take turns drawing cards and creating problems.

*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.



Math Vocabulary

Word for Today: reciprocal operations

Description: The term "reciprocal operations" refers to two operations which are related to each other such as completing one operation to check the correctness of the other operation. Addition and subtraction are reciprocal operations. In addition you are looking for a total, in subtraction you start with a total and then find the difference.

Enter the term "reciprocal operations" in your Vocabulary Notebook. Talk with a peer about what this term means to you.

Vocabulary Notebook Sample:

New Word	My Description
reciprocal operations	addition – subtraction, multiplication - division
Personal Connection	Drawing
Addition is a reciprocal operation to subtraction	4 + 5 = 9; 9 - 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 Addition and Subtraction

Addition and Subtraction

Addition and Subtraction are reciprocal mathematical processes. In addition you are looking for a total of two or more groups; in subtraction you are looking for the difference after you take a portion of the total. Being able to go back and forth between addition and subtraction comfortably is important.

To find if you have correctly done an addition problem, you can subtract, making the sum the subtrahend, subtracting one of the addends, and then finding the second addend. To check subtraction, you will add the difference and the minuend, and should arrive at the subtrahend.

Today we are going to practice moving between addition and subtraction to find particular numbers.

Math Magic Directions:

- 1. Divide students into groups of 3.
- 2. Give each group of 3 a Math Magic game board and six, 5-sided dice. Also give students a white board and game tokens. (Notes: For tokens, you can give each student a small piece of different colored construction paper, usually the scraps, and they tear off a small piece when they need to mark the number. This way you do not have to keep track of small pieces.)
- 3. First player rolls all five dice. With the numbers showing, student creates a number sentence by adding, subtracting and/or multiplying. For example, if I rolled a 3, 6, 2, 5, and 4. I could say 3 + 6 = 8 + 2 = 10 5 = 5 4 = 1 and then cover the one. I could also say, 3 2 = 1 + 6 = 8 + 5 = 13 4 = 9.
- 4. The object is to make a number that is not already covered.
- 5. When player cannot make a number, he/she misses the turn and it moves to the next



player. When all numbers are covered, play is over.	

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.



3rd Grade Math Magic

1 2 3 4 5 6 6 11 10 9 8 7 12 12 16 17 13 14 15 16 17 18 23 22 21 20 19 24 25 26 27 28 29 30 30	rade Matri Magic	<i>y</i>			
11 10 9 8 7 12 13 14 15 16 17 18 23 22 21 20 19 24 25 26 27 28 29	1	2	3	4	5
12 13 14 15 16 17 18 23 22 21 20 19 24 25 26 27 28 29					6
13 14 15 16 17 18 23 22 21 20 19 24 25 26 27 28 29	11	10	9	8	7
23 22 21 20 19 24 25 26 27 28 29	12				
23 22 21 20 19 24 25 26 27 28 29	13	14	15	16	17
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25 26 27 28 29	23	22	21	20	19
	24				
30	25	26	27	28	29
					30



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Math Magic 2
Focus:	Addition and Subtraction

Materials:

White boards Vocabulary Notebooks dice

Cravolas Double 9 Dominoes

Activity at the end of this lesson plan Socks (use for erasers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? How are addition and subtraction alike? How are they different? What does it mean to be a reciprocal process? Write several math problems on the board and invite students to come up and talk through the process.

Content (the "Meat")

Problem of the Day

Look at the following 3 multiplication fact problems. Replace one of the factors in each problem with 0 (zero), multiply and explain what happens and why.

 $5 \times 3 = 15$ $5 \times 9 = 45$ $7 \times 8 = 56$

Fact Practice

Spots and Dots

There is a master of Double 9 Dominos attached to this lesson plan. You will need 1 full set for each pair of students in your class. It is recommended that you duplicate on card stock and if possible, laminate for use again in the future.

Players sit across from each other.

Dominoes are between them, face (or spots) down.

Each student draws a domino and writes the addition problem on their white board, adding the numbers represented by the spots Example: Domino drawn is



*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.



Addition: 2 + 3 = 5

Math Vocabulary

Math term: reciprocal operations

Description: The term "reciprocal operations" refers to two operations which are related to each other such as completing one operation to check the correctness of the other operation. Addition and subtraction are reciprocal operations. In addition you are looking for a total, in subtraction you start with a total and then find the difference.

Enter the term "reciprocal operations" in your Vocabulary Notebook. Talk with a peer about what this term means to you.

Create an entry for the word digit in your Vocabulary Notebook.

Vocabulary Notebook Sample:

New Word	My Description
reciprocal operations	addition – subtraction, multiplication - division
Personal Connection	Drawing
Addition is a reciprocal operation to subtraction	4 + 5 = 9; 9 - 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 Addition and Subtraction

Addition and Subtraction

Addition and Subtraction are reciprocal mathematical processes. In addition you are looking for a total of two or more groups; in subtraction you are looking for the difference after you take a portion of the total. Being able to go back and forth between addition and subtraction comfortably is important.

To find if you have correctly done an addition problem, you can subtract, making the sum the subtrahend, subtracting one of the addends, and then finding the second addend. To check subtraction, you will add the difference and the minuend, and should arrive at the subtrahend.

Today we are going to practice moving between addition and subtraction to find particular numbers.

Math Magic

Directions:

- 1. Divide students into groups of 3.
- 2. Give each group of 3 a Math Magic game board and six, 5-sided dice. Also give students a white board and game tokens. (Notes: For tokens, you can give each student a small piece of different colored construction paper, usually the scraps, and they tear off a small piece when they need to mark the number. This way you do not



have to keep track of small pieces.)

- 3. First player rolls all five dice. With the numbers showing, student creates a number sentence by adding, subtracting and/or multiplying. For example, if I rolled a 3, 6, 2, 5, and 4. I could say 3 + 6 = 8 + 2 = 10 5 = 5 4 = 1 and then cover the one. I could also say, 3 2 = 1 + 6 = 8 + 5 = 13 4 = 9.
- 4. The object is to make a number that is not already covered.
- 5. When player cannot make a number, he/she misses the turn and it moves to the next player. When all numbers are covered, play is over.

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"?

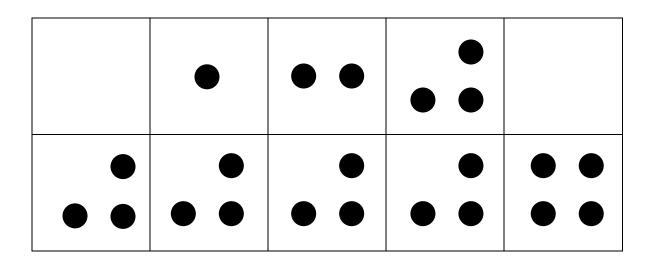
What advice would you give to a "new" student getting ready to do this activity.

- 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.



Double 9 Dominoes

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3rd Grade Math Magic

1	2	3	4	5
				6
11	10	9	8	7
12				
13	14	15	16	17
				18
23	22	21	20	19
24				
25	26	27	28	29
				30



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	+ or -
Focus:	Addition and Subtraction

Materials:

White boards Vocabulary Notebooks

Crayolas dice (6-sided and 12-sided for each pair)
Socks (for erasers) deck of card (one for every 2 players)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. It is important that you can go back and forth between the operations, even though each operation has its own set of guidelines. Create 5 addition and/or subtraction problems. Have a peer do the problems you created while you complete theirs.

Content (the "Meat")

Problem of the Day

Write at least 2 multiplication problems that has the product of 30. Write two stories, one for each of the two problems you created.

Fact Practice Fact Family

A Fact Family is 3 numbers which have a relationship in addition and subtraction. For example, the number 9, 4, and 13 have a particular relationship in math. This family has four members:

9 + 4 = 13

4 + 9 = 13

13 - 9 = 4

13 - 4 = 9

Students should roll 2 dice and create a Fact Family by writing the members of the family on the white board. Student should roll a total of 5 times, creating 5 Fact Families

*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.



Math Vocabulary

Word for Today: minuend

Description: The term minuend refers to the number in a subtraction problem that is the number that an amount will be taken from. The minuend if the largest of the 3 numbers. Both the subtrahend and the difference will be smaller.

Review the entry in your Vocabulary Notebook for the term subtrahend. Talk with a peer about this word and what it means.

Vocabulary Notebook Sample:

New Word	My Description
minuend	614 – 326 =
Personal Connection	Drawing
In the problem 58 – 23, the 58 is the minuend.	16 – 8 = 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

Addition and Subtraction

Addition and Subtraction are reciprocal mathematical processes. In addition you are looking for a total of two or more groups; in subtraction you are looking for the difference after you take a portion of the total. Being able to go back and forth between addition and subtraction comfortably is important.

To find if you have correctly done an addition problem, you can subtract, making the sum the subtrahend, subtracting one of the addends, and then finding the second addend. To check subtraction, you will add the difference and the minuend, and should arrive at the subtrahend.

Today we are going to practice moving between addition and subtraction to find particular numbers.

Addition or Subtracting

Directions:

- 1. Divide students into pairs.
- 2. Give each pair a deck of cards, remove the face cards, tens, and jokers, and a white board and 1 6-sided die.
- 3. Shuffle the cards and place them face down in between the students.
- 4. Player one draws six cards.
- 5. Player then rolls the die. If the number is even, then he/she must make an addition problem. If the number is odd, then he/she must create a subtraction problem. For example:



647 +396

- 6. He/she find the sum or the difference (using a white board)
- 7. He/she shares his/her answer with Player 2.
- 8. Player 2 continues in the same way.
- 9. Play is complete when all cards have been used.

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

Inree 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:	3 rd Grade
Lesson Title:	+ or -
Focus:	Addition and Subtraction

Materials:

White boards Vocabulary Notebooks

Cravolas Deck of cards

Socks (use as erasers) Dice

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. It is important that you can go back and forth between the operations, even though each operation has its own set of guidelines. Create 5 addition and/or subtraction problems. Have a peer do the problems you created while you complete theirs.

Content (the "Meat")						
Problem of the Day						
Look at	Look at the table below. Is the rule, "multiply by two?" How do you know?					
In	4	5	6	7	8	
Out	16	20	24	28	32	

Fact Practice Bump It Up! Add A Zero

- 1. Divide students into pairs
- 2. Give each pair a white board and a deck of cards (without face cards, jokers, or 10s)
- 3. The object of this fact practice is to sum numbers until you reach 1,000.
- 4. Student draws 2 cards, adds the value of the cards together, multiplies by ten and writes the total on the sheet.
- 5. It is not the other person's turn to do the same
- 6. When play returns to the first player, the process is repeated, although this time, the totals are added together.
- 7. First person to 1,000 wins.
- 8. Example: Player draws a 7 and a 4. Total is 11. Multiply by 10 (add the zero) equals 110. Next turn, player draws a 3 and a 2 which totals 5. Multiply by 10 and I now add

*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.



50 to 110 for a total of 160.

Math Vocabulary

Word for Today: minuend

Description: The term minuend refers to the number in a subtraction problem that is the number that an amount will be taken from. The minuend if the largest of the 3 numbers. Both the subtrahend and the difference will be smaller.

Review the entry in your Vocabulary Notebook for the term subtrahend. Talk with a peer about this word and what it means.

Vocabulary Notebook Sample:

New Word	My Description
minuend	614 – 326 =
Personal Connection	Drawing
In the problem 58 – 23, the 58 is the minuend.	16 – 8 = 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

Addition and Subtraction

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Today we are going to practice moving between addition and subtraction to find particular numbers.

Addition or Subtracting

Directions:

- 1. Divide students into pairs.
- 2. Give each pair a deck of cards, remove the face cards, tens, and jokers, and a white board and 1 6-sided die.
- 3. Shuffle the cards and place them face down in between the students.
- 4. Player one draws six cards.
- 5. Player then rolls the die. If the number is even, then he/she must make an addition problem. If the number is odd, then he/she must create a subtraction problem. For example:



647 +396

- 6. He/she find the sum or the difference (using a white board)
- 7. He/she shares his/her answer with Player 2.
- 8. Player 2 continues in the same way.
- 9. Play is complete when all cards have been used.

	Clasing	
	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"?		

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)

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

- 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:	3 rd Grade
Lesson Title:	Student Activity Choice
Focus:	Review

Materials:

Game Boards and materials from this week.

Prizes (these can be time, a leadership role, opportunities to be the "teacher"

Opening

State the objective

Today we are going to have fun playing a game. Students will be able to choose from the games learned in the past two weeks.

Content (the "Meat")

teams

Activity

Today is a review day. Students should select from the following list of activities:

Regrouping
Connect the Dots #1
Connect the Dots #2
Domino Subtraction
Math Magic
Addition or Subtraction

Closing

Review

Say:

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

- 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:	3 rd Grade
Lesson Title:	Attributes of Shapes
Focus:	Geometry

Materials:

White boards Decks of cards Dominoes (Double 9)

Crayolas Vocabulary Notebooks

Socks Activity at the end of this lesson plan

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operation of multiplication.

Gain prior knowledge by asking students the following questions

What do you know about geometry? Name several geometric shapes. What is the difference between plane geometry and solid geometry? How many geometric shapes can you name that have 4 sides? What is the shape of a right angle?

Content (the "Meat")			
Problem of the Day *Activity → Teachable Moment(s) throughout			
Look at the table below. What is the rule?	During the lesson check in with students repeatedly.		
In	Check in about what is happening and what they are thinking		
 Addition War Divide students into pairs. Give each pair a deck of cards without face cards and jokers. Shuffle the deck and divide the cards evenly between the two players On go, the players turn over the cards at the same time Students add the 2 numbers that have been turned up First person to give the answer either wins the cards because the answer is correct, or has to turn over 2 cards because he/she gave the wrong answer At the end of round, students may reshuffle the pile of cards that they have Play can continue until one player has all cards or time has called thinking. Take advantage of any teachable moments. Stop the class and focus student's key learning or understanding. Ask ope ended questions to determine what the rest the group is thinking. When possible, engage students in a "teach to lead opportunity and have the student become the teachable moments. 			
Math Vocabulary Word for Today: geometry	It is important to review academic math vocabulary often throughout the day.		



Description: Geometry is a type of mathematics that has to do with lines, space, and shapes, both plane (two-dimensional) and solid (three dimensional). Plane geometry is about lines, squares, and triangles to name a few. Solid geometry is about cubes, cylinders, and prisms.

Enter the term Geometry in your Vocabulary Notebook. Share with a friend what the term means. Give an example.

Vocabulary Notebook Sample:

New Word	My Description
geometry	lines, shapes and space
Personal Connection	Drawing
I like geometric designs on books.	

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 Geometry

Geometry

Attributes are a property of an object or a person, it is a descriptor, something you can say it has such as size, shape or color. When we talk about attributes of geometric shapes we can also talk about angles, sides, right angles, as well as size and color attributes.

Talk with students about the different types of angles. Explain that a right angle is in the shape of a capital L. Ask them to identify objects in the room that have right angles. Explain that angles can also be smaller or closer together than a right angle or larger or further apart than a right angle. Ask them to look at the hands of an analog clock. When it is 1:00 the hands form an angle smaller than a right angle. When it is 5:00, the angle is larger than a right angle. What hour times on the clock would be a right angle? Ask children to share what shape doesn't have angles or sides at all (circle).

Today students are going to look at several shapes and identify the attributes of the shapes in term of sides, angles, and right angles.

Attributes of Shapes

Directions:

- 1. Divide students into pairs.
- 2. Give each pair a set of shape cards and an Attribute Board.
- 3. Shuffle the cards and place them face down in between the students.
- 4. Working together, pair draws a card, identifies the shape and then examines based on the attributes listed.
- 5. When students finish they need to locate 10 objects in the classroom and the attributes of those items, using the chart.
- 6. When finished, pair should share the information with another pair.



	Closing
Cove	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" player getting ready to play this game so he/she could get all the blocks are completed.

- 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.



3rd Grade Attributes of Shapes

CONSULT 4 KIDS

Consult 4 Kids Lesson Plans

3rd Grade Attributes Work Sheet

Shape	Picture	Sides	Angles	Right Angles
triangle				
rectangle				
square				
circle				
pentagon				
hexagon				
right triangle				
diamond				



trapezoid		
star		
plus sign		
octagon		



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Attributes of Shapes
Focus:	Geometry

Materials:

White boards Decks of cards Dominoes (Double 9)

Crayolas Vocabulary Notebooks

Socks (for erasers) Activity at the end of this lesson plan

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operation of multiplication.

Gain prior knowledge by asking students the following questions

What do you know about geometry? Name several geometric shapes. What is the difference between plane geometry and solid geometry? How many geometric shapes can you name that have 4 sides? What is the shape of a right angle? What other attributes to geometric shapes have?

Content (the "Meat")

Problem of the Day

I am a two digit number between 40 and 50. I have multiples of 2, 3, 6 and 7. What number am I? How do you know?

Fact Practice

Fore-header

- 1. Divide students into trios. Give each trio a deck of cards without face cards and jokers.
- 2. Shuffle the deck and give all of the cards to the referee who will be "judging" the contest
- 3. On go, players are each handed a card by the referee and **WITHOUT** looking, put the card face out on his/her forehead
- 4. The referee adds the two numbers together and states the answer
- 5. Each player looks at the other person's exposed number and names his/her own number
- **6.** Person who wins (accuracy and time), collects both cards
- 7. Play continues until all cards are gone.
- **8.** Players can repeat play (if there is another time) with each other so each has an opportunity to be both a player and referee

*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.



Math Vocabulary

Word for Today: geometry

Description: Geometry is a type of mathematics that has to do with lines, space, and shapes, both plane (two-dimensional) and solid (three dimensional). Plane geometry is about lines, squares, and triangles to name a few. Solid geometry is about cubes, cylinders, and prisms.

Enter the term Geometry in your Vocabulary Notebook. Share with a friend what the term means. Give an example.

Vocabulary Notebook Sample:

New Word	My Description
geometry	lines, shapes and space
Personal Connection	Drawing
I like geometric designs on books.	

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 Geometry

Geometry

Attributes are a property of an object or a person, it is a descriptor, something you can say it has such as size, shape or color. When we talk about attributes of geometric shapes we can also talk about angles, sides, right angles, as well as size and color attributes.

Talk with students about the different types of angles. Explain that a right angle is in the shape of a capital L. Ask them to identify objects in the room that have right angles. Explain that angles can also be smaller or closer together than a right angle or larger or further apart than a right angle. Ask them to look at the hands of an analog clock. When it is 1:00 the hands form an angle smaller than a right angle. When it is 5:00, the angle is larger than a right angle. What hour times on the clock would be a right angle? Ask children to share what shape doesn't have angles or sides at all (circle).

Today students are going to look at several shapes and identify the attributes of the shapes in term of sides, angles, and right angles.

Attributes of Shapes

Directions:

- 1. Divide students into pairs.
- 2. Give each pair a set of shape cards and an Attribute Board.
- 3. Shuffle the cards and place them face down in between the students.
- 4. Working together, pair draws a card, identifies the shape and then examines based on the attributes listed.
- 5. When students finish they need to locate 10 objects in the classroom and the attributes of those items, using the chart.
- 6. When finished, pair should share the information with another pair.

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.



3rd Grade Attributes of Shapes

CONSULT 4 KIDS

Consult 4 Kids Lesson Plans

3rd Grade Attributes Work Sheet

Shape	Picture	Sides	Angles	Right Angles
triangle				
rectangle				
square				
circle				
pentagon				
hexagon				
right triangle				
diamond				



trapezoid		
star		
plus sign		
octagon		



Component	Math
Grade Level:	2 nd Grade
Lesson Title:	Roll a Rectangle
Focus:	Geometry

Materials:

White boards Vocabulary Notebooks Dice

Crayolas Socks (erasers for white board)
Cards Activity at the end of the lesson plan

Opening

State the objective

Today we are going to practice using our math vocabulary and math skills fractions.

Gain prior knowledge by asking students the following questions

What do you know about finding the perimeter? What is the perimeter? What operation do you utilize when you are finding the perimeter of an object? If you were to have a school yard that measured 15 yards by 10 yards, and it was a perfect rectangle, what would the perimeter of the yard be? Make several rectangles on the white board or chart paper. Label the sides. Ask students to find the perimeter.

Content (the "Meat")

Problem of the Day

Write a multiplication problem that has a product of 36. Then write a story that matches the problem you have written.

? x ? = 36

Fact Practice

Foreheader

- 1. Divide students into trios. Give each trio a deck of cards without face cards and jokers.
- 2. Shuffle the deck and give all of the cards to the referee who will be "judging" the contest
- 3. On go, players are each handed a card by the referee and WITHOUT looking, put the card face out on his/her forehead
- 4. The referee adds the two numbers together and states the answer
- 5. Each player looks at the other person's exposed number and names his/her own number
- 6. Person who wins (accuracy and time), collects both cards
- 7. Play continues until all cards are gone.
- **8.** Players can repeat play (if there is another time) with each other so each has an opportunity to be both a player and referee

*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.



Math Vocabulary

Word for Today: perimeter

Description: The term perimeter refers to the distance around a two-dimensional shape. You start at one spot and measure all the way around. If you want to measure the perimeter of a circle you would call it the circumference not the perimeter.

Create an entry for the term "perimeter" in your Vocabulary Notebook. Share with a peer.

Vocabulary Notebook Sample:

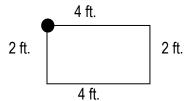
New Word	My Description
perimeter	the distance around a flat shape
Personal Connection	Drawing
What is the perimeter of your yard?	

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 Perimeters

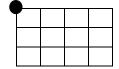
Perimeters

The perimeter of a geometric shape is the distance around the shape. You start at one spot (corner) and then add all the measurements together. For example:



So, if you started at the black dot you would create this problem: 4 + 2 + 4 + 2 = 12 feet. Draw several different shapes on the board, labeling the sides (don't draw a circle), and find the perimeters of each of the items. Have children help by coming up and demonstrating understanding at the board.

Show students how to roll the sides of a rectangle or a square. Take two 6-sided dice and roll them. It the dice rolled are a 3 and a 4, you will create a rectangle on grid paper that is 3 squares by 4 squares.



If you started at the corner and counted the squares you would create a problem that was 4 + 3 + 4 + 3 = 14 squares. Students will want to roll the dimension of the rectangle, create a number sentence to show the addition of each of the sides, and then record the perimeter for each rectangle.

Roll A Rectangle 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 sheet of graph paper (attached to this lesson plan), and two 6-sided dice.
- 3. Working together, students roll the dice draw a rectangle that reflects the information on the dice.
- 4. Pair creates the perimeter equation and writes the perimeter in total number of squares.
- 5. Activity is over when the grid paper is full.

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"?

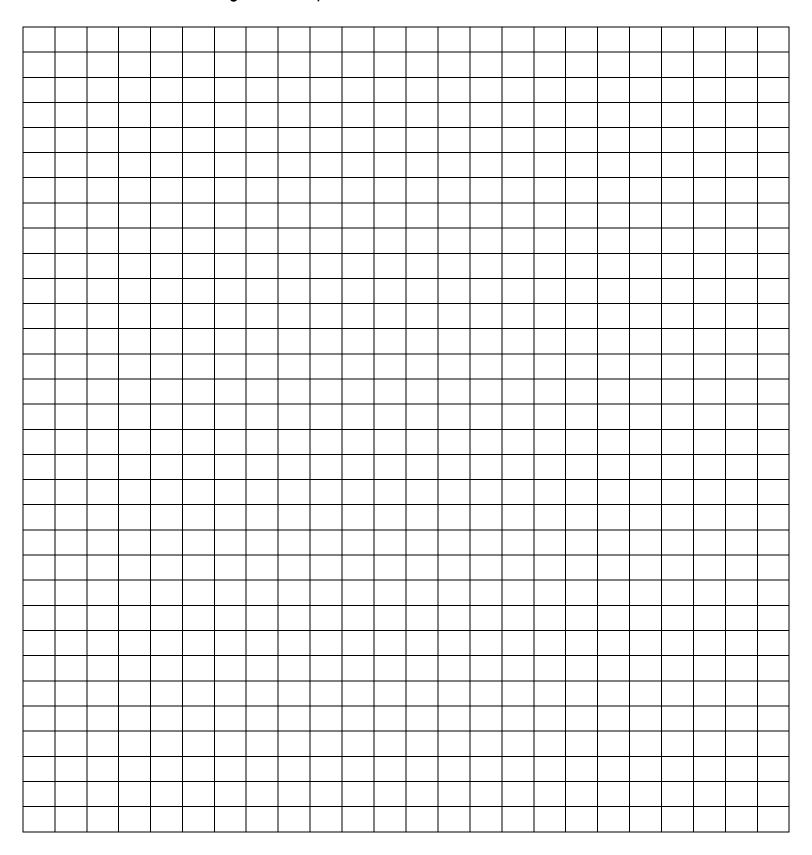
What advice would you give to a "new" student getting ready to do this activity.

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.



3rd Grade Roll a Rectangle Grid Paper





Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Roll a Rectangle 2
Focus:	Geometry

Materials:

White boards Vocabulary Notebooks

Cravolas dice

Socks (for erasers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

What do you know about finding the perimeter? What is the perimeter? What operation do you utilize when you are finding the perimeter of an object? If you were to have a school yard that measured 15 yards by 10 yards, and it was a perfect rectangle, what would the perimeter of the yard be? Make several rectangles on the white board or chart paper. Label the sides. Ask students to find the perimeter.

Content (the "Meat")

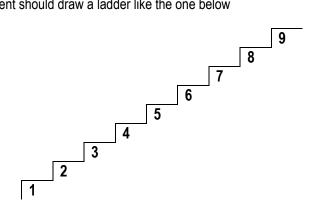
Problem of the Day

Skating Rink tickets are \$5.00 for a three hour session. If 91 people buy tickets for the session, how much money does the skating rink earn? How do you know you are right?

Fact Practice

Addition Ladder

- 1. Give each student a white board (include marker or crayola)
- 2. Student should draw a ladder like the one below



3. Have student roll 2 dice, total the pips and then add that number to each of the numbers in the ladder, writing the sum to the right of the number

*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.



Math Vocabulary

Word for Today: perimeter

Description: The term perimeter refers to the distance around a two-dimensional shape. You start at one spot and measure all the way around. If you want to measure the perimeter of a circle you would call it the circumference not the perimeter.

Create an entry for the term "perimeter" in your Vocabulary Notebook. Share with a peer.

Vocabulary Notebook Sample:

New Word	My Description
perimeter	the distance around a flat shape
Personal Connection	Drawing
What is the perimeter of your yard?	

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

Complete the Vocabulary notebook for each word.

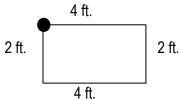
When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).

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

Activity Perimeters

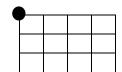
Perimeters

The perimeter of a geometric shape is the distance around the shape. You start at one spot (corner) and then add all the measurements together. For example:



So, if you started at the black dot you would create this problem: 4 + 2 + 4 + 2 = 12 feet. Draw several different shapes on the board, labeling the sides (don't draw a circle), and find the perimeters of each of the items. Have children help by coming up and demonstrating understanding at the board.

Show students how to roll the sides of a rectangle or a square. Take two 6-sided dice and roll them. It the dice rolled are a 3 and a 4, you will create a rectangle on grid paper that is 3 squares by 4 squares.



If you started at the corner and counted the squares you would create a problem that was 4 + 3 + 4 + 3 = 14 squares. Students will want to roll the dimension of the rectangle, create a number sentence to show the addition of each of the sides, and then record the perimeter for each rectangle.

Roll A Rectangle

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 sheet of graph paper (attached to this lesson plan), and two 6-sided dice.
- 3. Working together, students roll the dice draw a rectangle that reflects the information on the dice.
- 4. Pair creates the perimeter equation and writes the perimeter in total number of squares.
- 5. Activity is over when the grid paper is full.

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

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"?

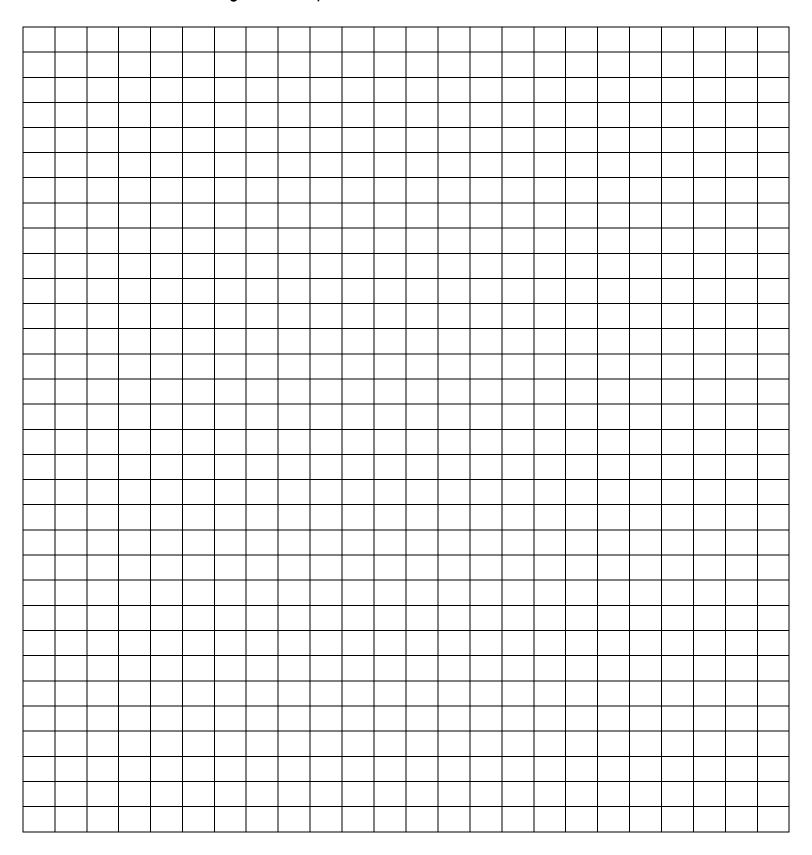
What advice would you give to a "new" student getting ready to do this activity.

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.



3rd Grade Roll a Rectangle Grid Paper





Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Area
Focus:	How Many Squares?

Materials:

White boards Vocabulary Notebooks Dominoes

Crayolas Deck of Cards for each pair

Activity at the end of this lesson plan Socks (use as erasers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division. We are also going to learn about geometry.

Gain prior knowledge by asking students the following questions

What do you know about finding the area of a two-dimensional geometric shape? What mathematical operation would you apply in order to find the area? What are you counting when you calculate area? (square units) Area is the space inside of a lined out area. When would you need to know how to calculate area?

Content (the "Meat")

Problem of the Day

Jordan wants to buy ribbon for her hair. The ribbon she wants is \$.15 per inch. She will need 14 inches to make the bow. How much money does she need to buy the ribbon? How do you know?

Fact Practice

Target

- 1. Divide students into trios
- 2. Each trio needs a deck of cards without face cards and jokers
- 3. Place the cards face up in a TicTac Toe Grid
- 4. Turn up a 10th card which will be to the side and becomes the target number (aces count as 1)
- 5. Each player makes an equation with some or all of the numbers in the grid to equal the target number. Students may add or subtract.
- 6. Each card may be used only one time in the equation
- 7. As the cards are being picked up, the player must say the equation aloud—for example if the target card is 10, then I could say 6 + 4 = 10, and pick up the 6 and the 4
- 8. After one player finishes his/her turn, then the cards taken are replaced by cards from the remaining deck

*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.



9. Player with the most cards at the el	nd of the game win	
Word for today: area Description: Area is a mathematical term You count area in square units. 1 2 3 4 5 6 7 8 9 7 1 3 5 8 2 4 6 9	Vocabulary that defines the space inside a designated shape.	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.
,	even though they do not look the same. otebook. Discuss your entry with your friend.	·
Vocabulary Notebook Sample: New Word	My Description	
area		
Personal Connection	Drawing	
What is the area of the yard?		
Area	es the amount of space inside the boundary of a le or a square.	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 these shapes have an area of 9 units. They each have the same surface area even though the shapes are different.

When you are calculating area it is done in square units (rather than a perimeter which would just be labeled in squares). Draw several shapes on a large piece of grid paper so students can practice counting the square units and determine the surface area.

How Many Squares? #1 Directions:

- 1. Divide students into pairs.
- 2. Give each pair a piece of grid paper with shapes outlined on it.
- 3. Ask students to work together as pairs to determine the number of square units in each of the shapes.
- 4. Students should write the answer by using a number and the words square unit written after the number.
- 5. When students are finished, they should share their answers with another pair.

	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"?

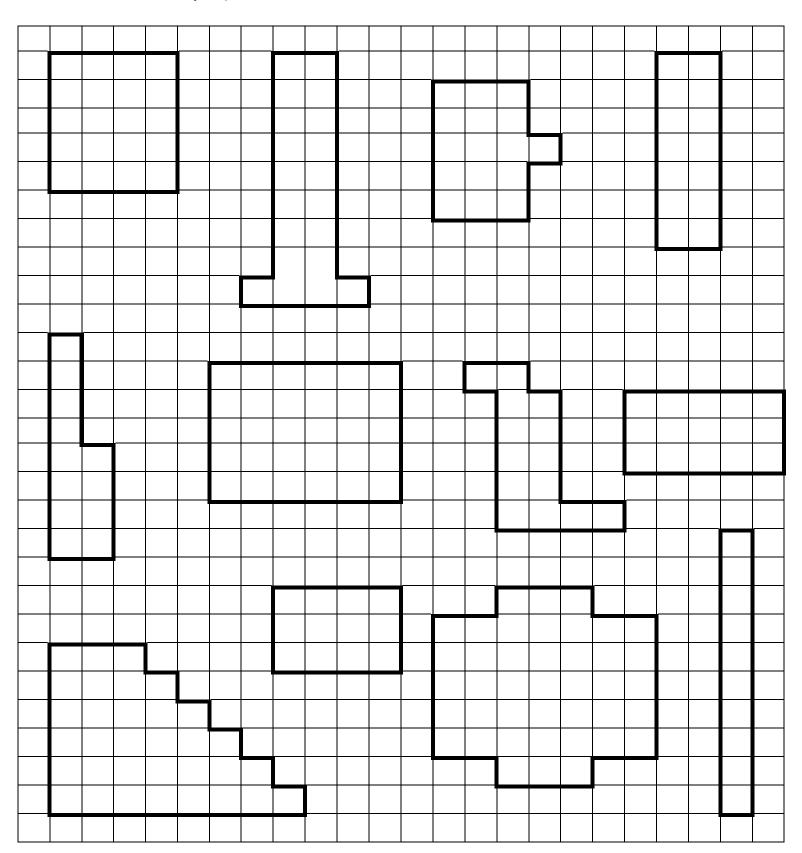
What advice would you give to a "new" student getting ready to do this activity?

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.



3rd Grade How Many Squares? #1





Component	Math
Grade Level:	3 rd Grade
Lesson Title:	How Many Squares?
Focus:	Geometry

Materials:

White boards Vocabulary Notebooks Materials at end of lesson plan
Crayolas 12-sided dice for each pair Deck of Card for every 2 students

Number Hunt Work Sheet Socks (for erasers) Dominoes

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division. We are also going to learn about geometry.

Gain prior knowledge by asking students the following questions

What do you know about finding the area of a two-dimensional geometric shape? What mathematical operation would you apply in order to find the area? What are you counting when you calculate area? (square units) Area is the space inside of a lined out area. When would you need to know how to calculate area? Draw several shapes on the board and have students calculate area.

Content (the "Meat")	
Problem of the Day	*Activity → Teachable Moment(s) <i>throughout</i>
How are multiplication and addition alike? When would you use multiplication rather than addition? Explain your thinking.	During the lesson check in with students repeatedly.
Fact Practice Number Hunt	Check in about what is happening and what they are thinking.
 Divide students into pairs Each pair needs a Number Hunt sheet (attached to this lesson plans) 	Take advantage of any teachable moments.
 Player rolls two, 12-sided dice. Player adds or subtracts the two numbers. If the number is not yet covered, then player may cover the number. Next player repeats steps 1-3. Winner is determined by who has the most numbers covered. 	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.



Math Vocabulary

Word for today: area

Description: Area is a mathematical term that defines the space inside a designated shape. You count area in square units.

-			
	1	2	3
	4	5	6
	7	8	9

			7
1	3	5	8
2	4	6	9

These two shapes have the same area of 9 even though they do not look the same.

Revisit the term area into your Vocabulary Notebook. Discuss your entry with your friend.

Vocabulary Notebook Sample:

New Word My Description			
area	the number of square units on a surface		
Personal Connection	Drawing		
What is the area of the yard?	1 2 3		
	4 5 6		
	7 8 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 Area

Area

Area tells you the size of a surface. It defines the amount of space inside the boundary of a flat, 2-dimensional object such as a rectangle or a square.

Look at the following shapes:

1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---

1	2	3
4	5	6
7	8	9

1	2	3	4
5	6	7	8
	9		

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 these shapes have an area of 9 units. They each have the same surface area even though the shapes are different.

When you are calculating area it is done in square units (rather than a perimeter which would just be labeled in squares). Draw several shapes on a large piece of grid paper so students can practice counting the square units and determine the surface area.

How Many Squares? #2 Directions:

- 1. Divide students into pairs.
- 2. Give each pair a piece of grid paper.
- 3. Ask students to create at least 10 shapes on the grid paper and then find another pair to share papers with.
- 4. Each pair should find the area of the shapes drawn by the other pair.
- 5. Students should write the answer by using a number and the words square unit written after the number.

	Closing	
	Review	
Say:		
 Please recap what we did today. 		
 Did we achieve our objectives? 		
	D.I.: 6	
	Debrief	

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.



Number Hunt

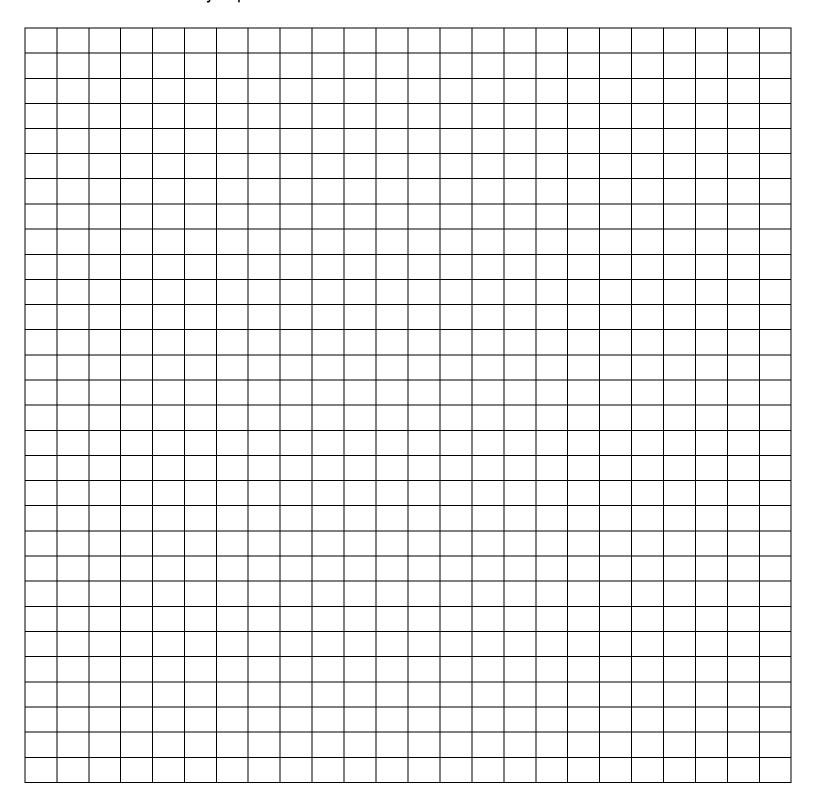
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

Number Hunt

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



3rd Grade How Many Squares #2





Component	Math
Grade Level:	3 rd Grade
Lesson Title:	What Seems Likely?
Focus:	Measurement

Materials:

White boards Vocabulary Notebooks dice

Crayolas deck of cards, no face cards or jokers for math fact practice

Activity at the end of the lesson plan Socks (use as erasers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division. We are also learning about measurement.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What do you know about measurement? What are some of the common units of measurement? (Think in terms of distance, liquid, and time.) What are some of the tools that we use to measure items?

Content (the "Meat")			
Problem of the Day If a $\triangle = 3$, what is the value of \bigcirc and \square ?	*Activity → Teachable Moment(s) throughout		
□ ÷ △ = 12	During the lesson check in with students repeatedly.		
O x 9 = □	Check in about what is happening and what they are thinking.		
Fact Practice Draw!	Take advantage of any teachable moments.		
 Divide students into pairs and give each pair a deck of cards Remove the face cards and jokers from the deck of cards. Shuffle the deck. Decide who will go first. First player draws two cards. Student adds or subtracts the cards. Student writes his/her problem on the white board, writing a complete number sentence. Students take turns drawing cards and creating problems. 	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.		



Math Vocabulary

Word for Today: customary measurement

Description: The term "customary measurement" refers to the measurement tools we use in the United States. To measure length and distance we speak in terms of inches, feet, yards, and miles. To measure liquid we speak in terms of ounces, cups, pints, quarts and gallons. To measure time we speak in terms of seconds, minutes, hours, days, weeks, months and vears.

Enter the term "customary measurement" in your Vocabulary Notebook. Talk with a peer about what this term means to you.

Vocabulary Notebook Sample:

New Word	My Description
customary measurement	way to calculate time, length, and liquid
Personal Connection	Drawing
He was given a 2 ounce cup.	A THOUSE THE STATE OF THE STATE

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

Measurement

It is important when we measure things that students have an idea of what unit of measurement should be used. For example, if I want to know the distance from San Diego to Los Angeles, it would not make sense to measure that in inches or feet. It would make sense to measure that distance in miles or kilometers. Students need to be familiar with both the customary system of measurement (inches, feet, yards, miles) and the metric system (centimeters, meters, or kilometers.

Discuss different items that you could measure and have students determine which of the measures would be the most reasonable for both the customary and the metric system.

When looking at the metric system, there are 100 centimeters in a meter. A meter is just longer than a yard, so this means that there are approximately 100 centimeters in a yard.

2.54 centimeters is equal to an inch. If you are looking at a 12 inch ruler, you are looking at approximately 30 centimeters. "Centi" is a prefix that means 100. The abbreviation of centimeter is cm.

A meter is just longer than a yard stick. A yard is 36 inches long and a meter is 1.093 yards long.

A kilometer is 1,000 meters long. Compared to a mile, a kilometer is just about .62 miles.

What Seems Likely?

Directions:

- 1. Divide students into pairs.
- 2. Give each pair a set of cards with items listed on them.

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.



- Working together, pair should determine which customary and which metric measurement would be the best to use to measure each item.
- 4. When pair is finished, they should join another pair and share the information they have found.

	Closing	
	Review	
Say:		
 Please recap what we did today. 		
Did we achieve our objectives?		
	Debrief	
Three Whats		
Ask the following three what guestions:		

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.





3rd Grade What Seems Likely?

Item	Customary	Metric
your finger		
a city block		
a highway		
a baby		
a road between two cities		
a car		
a pencil		
a railroad track between two stations		
a 4 story building		
a football field		
the Daytona 500 (car race)		
an eraser		
the distance to Hawaii from Los Angeles		
your height		
a book		
a fork		
your front door		
a tree		
distance to the moon		



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	What Seems Likes? 2
Focus:	Measurement

Materials:

White boards Vocabulary Notebooks dice

Cravolas Double 9 Dominoes

Activity at the end of this lesson plan Socks (use for erasers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division. We are learning about measurement.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What do you know about measurement? What are some of the common units of measurement? (Think in terms of distance, liquid, and time.) What are some of the tools that we use to measure items?

Content (the "Meat")

Problem of the Day

Solve the problem below and then write a story to match the problem.

 $63 \div 9 =$

Fact Practice

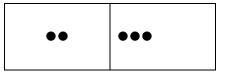
Spots and Dots

There is a master of Double 9 Dominos attached to this lesson plan. You will need 1 full set for each pair of students in your class. It is recommended that you duplicate on card stock and if possible, laminate for use again in the future.

Players sit across from each other.

Dominoes are between them, face (or spots) down.

Each student draws a domino and writes the addition problem on their white board, adding the numbers represented by the spots Example: Domino drawn is



Addition: 2 + 3 = 5

*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.



Math Vocabulary

Word for Today: metric measurement

Description: The term "metric measurement" refers to the measurement units that are used world-wide. To measure length and distance we speak in terms of centimeters, meters and kilometers. To measure liquid we speak in terms of milliliters, centiliters, and liters. To measure time we speak in terms of seconds, minutes, hours, days, weeks, months and years. Enter the term "metric measurement" in your Vocabulary Notebook. Talk with a peer about what this term means to you.

Vocabulary Notebook Sample:

New Word	My Description
metric measurement	way to calculate time, length, and liquid
Personal Connection	Drawing
He was given a 2 milliliter cup .	The state of the s

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 Measurement

Measurement

It is important when we measure things that students have an idea of what unit of measurement should be used. For example, if I want to know the distance from San Diego to Los Angeles, it would not make sense to measure that in inches or feet. It would make sense to measure that distance in miles or kilometers. Students need to be familiar with both the customary system of measurement (inches, feet, yards, miles) and the metric system (centimeters, meters, or kilometers.

Discuss different items that you could measure and have students determine which of the measures would be the most reasonable for both the customary and the metric system.

When looking at the metric system, there are 100 centimeters in a meter. A meter is just longer than a yard, so this means that there are approximately 100 centimeters in a yard.

2.54 centimeters is equal to an inch. If you are looking at a 12 inch ruler, you are looking at approximately 30 centimeters. "Centi" is a prefix that means 100. The abbreviation of centimeter is cm.

A meter is just longer than a yard stick. A yard is 36 inches long and a meter is 1.093 yards long.

A kilometer is 1,000 meters long. Compared to a mile, a kilometer is just about .62 miles.

What Seems Likely? 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 cards with items listed on them.
- 3. Working together, pair should determine which customary and which metric measurement would be the best to use to measure each item.
- 4. When pair is finished, they should join another pair and share the information they have found.

	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.



Double 9 Dominoes

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3rd Grade What Seems Likely?

Item	Customary	Metric
your finger		
a city block		
a highway		
a baby		
a road between two cities		
a car		
a pencil		
a railroad track between two stations		
a 4 story building		
a football field		
the Daytona 500 (car race)		
an eraser		
the distance to Hawaii from Los Angeles		
your height		
a book		
a fork		
your front door		
a tree		
distance to the moon		



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Round 'Em
Focus:	Number Properties

Materials:

White boards Vocabulary Notebooks

Crayolas dice (6-sided and 12-sided for each pair)
Socks (for erasers) deck of card (one for every 2 players)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What do you know about rounding numbers? Why would you want to round a number? When do you round a number up? When do you leave a number as it is? What do you do when you round a number to hundreds with the numbers in the tens and ones place.

Content (the "Meat")

Problem of the Day

The tables in the outdoor eating area at the school each hold 6 people. If there are 72 children who are there to eat, how many tables will you need?

Fact Practice Fact Family

A Fact Family is 3 numbers which have a relationship in addition and subtraction. For example, the number 9, 4, and 13 have a particular relationship in math. This family has four members:

9 + 4 = 13

4 + 9 = 13

13 - 9 = 4

13 - 4 = 9

Students should roll 2 dice and create a Fact Family by writing the members of the family on the white board. Student should roll a total of 5 times, creating 5 Fact Families

*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.



Math Vocabulary

Word for Today: rounding

Description: The term rounding refers to a process that you utilize to generally know how many of something there are. Rounding is not as accurate as an actual count, but it is an easier way to think about a number. The general rule is that after you determine the last digit you want to keep, you look at the number to the right of it and if that number is 5 or higher, you round the digit you want to keep to the next digit. If the number to the right is 4 or lower, you leave the digit alone. Then you add zeros to the end.

Review the entry in your Vocabulary Notebook for the term subtrahend. Talk with a peer about this word and what it means.

Vocabulary Notebook Sample:

New Word	My Description
rounding	7,852 = rounds to 8.000
Personal Connection	Drawing
What do you get when you round the number?	Round

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.

acting out an equation).

right angle, multiple students

Activity

Rounding Numbers

Rounding a number means reducing the digits in the number while trying to keep the value of the number close to its original value. When you round a number it is easier for you to think about but it is less accurate. For example, if a number is 437, if you were rounding to the nearest ten, you would have 440 (3 over the accurate number); and if you were rounding to the nearest hundred, you would round to 400 (37 less that the accurate number).

The most common method for rounding a number is to follow these steps: Decide which is the last digit you want to keep, (tens, hundreds, thousands, etc.). Increase the digit by 1 if the digit next to it to the right is 5 or more. Leave the digit as it is if the digit next to it to the right is 4 or less.

Work through several examples with the students. Round to the nearest ten and to the nearest hundred. Practice applying the guidelines. Talk through your thinking when you demonstrate. Bring students up to practice.

Round 'Em Directions:

- 1. Divide students into pairs.
- 2. Give each pair a deck of Round 'Em cards and a white board to keep score on.
- 3. Shuffle the cards and place between the students.
- 4. Player 1 draws a card and looks at the number on the card.
- 5. The number that is underlined is the last digit the player wants to keep.
- 6. Player rounds the number following the steps above.
- 7. If player is correct, he/she gets one point.



- 8. Player 2 continues.
- 9. Play is over when one of the players reaches 15 points.

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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?

2

- 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.



3rd Grade Round 'Em

1 <u>2</u> 9	1 87	4 <u>0</u> 8	3 <u>7</u> 2
<u>1</u> 50	<u>8</u> 35	<u>2</u> 90	<u>3</u> 8
4 <u>6</u> 4	<u>5</u> 5	<u>5</u> 18	<u>8</u> 50
4 <u>2</u> 3	<u>6</u> 75	9 <u>4</u> 9	<u>7</u> 64
<u>6</u> 4	<u>3</u> 02	<u>2</u> 88	1, <u>5</u> 87
2, <u>4</u> 08	5, <u>3</u> 72	4, <u>8</u> 50	8, <u>9</u> 35
2, <u>5</u> 40	8 <u>4</u> 3	3, <u>9</u> 39	1, <u>9</u> 44
6,5 <u>2</u> 1	<u>4</u> 64	1, <u>0</u> 92	7, <u>6</u> 84



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Round 'Em 2
Focus:	Number Properties

Materials:

White boards Vocabulary Notebooks

Cravolas Deck of cards

Socks (use as erasers) Dice

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division. We will also learn about rounding numbers.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What do you know about rounding numbers? Why would you want to round a number? When do you round a number up? When do you leave a number as it is? What do you do when you round a number to hundreds with the numbers in the tens and ones place.

Content (the "Meat")

Problem of the Day

Joni has 112 apples to make pies with. She will use 8 apples per pie and then sell each pie for \$8. She will use all of the apples. How much money will she earn? How do you know?

Fact Practice Bump It Up! Add A Zero

- 1. Divide students into pairs
- 2. Give each pair a white board and a deck of cards (without face cards, jokers, or 10s)
- 3. The object of this fact practice is to sum numbers until you reach 1,000.
- 4. Student draws 2 cards, adds the value of the cards together, multiplies by ten and writes the total on the sheet.
- 5. It is not the other person's turn to do the same
- 6. When play returns to the first player, the process is repeated, although this time, the totals are added together.
- 7. First person to 1,000 wins.
- 8. Example: Player draws a 7 and a 4. Total is 11. Multiply by 10 (add the zero) equals 110. Next turn, player draws a 3 and a 2 which totals 5. Multiply by 10 and I now add 50 to 110 for a total of 160.

*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.



Math Vocabulary

Word for Today: rounding

Description: The term rounding refers to a process that you utilize to generally know how many of something there are. Rounding is not as accurate as an actual count, but it is an easier way to think about a number. The general rule is that after you determine the last digit you want to keep, you look at the number to the right of it and if that number is 5 or higher, you round the digit you want to keep to the next digit. If the number to the right is 4 or lower, you leave the digit alone. Then you add zeros to the end.

Review the entry in your Vocabulary Notebook for the term subtrahend. Talk with a peer about this word and what it means.

Vocabulary Notebook Sample:

New Word	My Description
rounding	$\frac{1}{2}$,852 = rounds to 8.000
Personal Connection	Drawing
What do you get when you round the number?	Round

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

Rounding Numbers

Rounding a number means reducing the digits in the number while trying to keep the value of the number close to its original value. When you round a number it is easier for you to think about but it is less accurate. For example, if a number is 437, if you were rounding to the nearest ten, you would have 440 (3 over the accurate number); and if you were rounding to the nearest hundred, you would round to 400 (37 less that the accurate number).

The most common method for rounding a number is to follow these steps: Decide which is the last digit you want to keep, (tens, hundreds, thousands, etc.). Increase the digit by 1 if the digit next to it to the right is 5 or more. Leave the digit as it is if the digit next to it to the right is 4 or less.

Work through several examples with the students. Round to the nearest ten and to the nearest hundred. Practice applying the guidelines. Talk through your thinking when you demonstrate. Bring students up to practice.

Round 'Em

Directions:

- 1. Divide students into pairs.
- 2. Give each pair a deck of Round 'Em cards and a white board to keep score on.
- 3. Shuffle the cards and place between the students.
- 4. Player 1 draws a card and looks at the number on the card.
- 5. The number that is underlined is the last digit the player wants to keep.
- 6. Player rounds the number following the steps above.
- 7. If player is correct, he/she gets one point.
- 8. Player 2 continues.
- 9. Play is over when one of the players reaches 15 points.



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.



3rd Grade Round 'Em

1 <u>2</u> 9	1 87	4 <u>0</u> 8	3 <u>7</u> 2
<u>1</u> 50	<u>8</u> 35	<u>2</u> 90	<u>3</u> 8
4 <u>6</u> 4	<u>5</u> 5	<u>5</u> 18	<u>8</u> 50
4 <u>2</u> 3	<u>6</u> 75	9 <u>4</u> 9	<u>7</u> 64
<u>6</u> 4	<u>3</u> 02	<u>2</u> 88	1, <u>5</u> 87
2, <u>4</u> 08	5, <u>3</u> 72	4, <u>8</u> 50	8, <u>9</u> 35
2, <u>5</u> 40	8 <u>4</u> 3	3, <u>9</u> 39	1, <u>9</u> 44
6,5 <u>2</u> 1	<u>4</u> 64	1, <u>0</u> 92	7, <u>6</u> 84



Component	Math	
Grade Level:	3 rd Grade	
Lesson Title:	Student Activity Choice	
Focus:	Review	

Materials:

Game Boards and materials from this week.

Prizes (these can be time, a leadership role, opportunities to be the "teacher"

Opening

State the objective

Today we are going to have fun playing a game. Students will be able to choose from the games learned in the past two weeks.

Content (the "Meat")

teams

Activity

Today is a review day. Students should select from the following list of activities:

Attributes of Shapes
Roll A Rectangle
How Many Squares? #1
How Many Squares? #2
What Seems Likely?
Round 'Em

Closing

Review

Say:

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

- 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:	3 rd Grade
Lesson Title:	Converting Units of Time
Focus:	Measurement

Materials:

White boards Decks of cards Dominoes (Double 9)

Crayolas Vocabulary Notebooks

Socks Activity at the end of this lesson plan

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in converting time.

Gain prior knowledge by asking students the following questions

In what ways to we measure time? Which is the smallest common unit of measurement? How do we begin with that unit (second) and build up into years. Fill out a chart together that shows seconds to minutes to hours to days to weeks to years. What tools do we use to measure time?

Content (the "Meat")		
Problem of the Day	*Activity → Teachable Moment(s) throughout	
If you have 32¢ how many possible coins do you have? Remember there is more than one way to have 32¢.	During the lesson check in with students repeatedly.	
 Fact Practice Addition War Divide students into pairs. Give each pair a deck of cards without face cards and jokers. Shuffle the deck and divide the cards evenly between the two players On go, the players turn over the cards at the same time Students add the 2 numbers that have been turned up First person to give the answer either wins the cards because the answer is correct, or has to turn over 2 cards because he/she gave the wrong answer At the end of round, students may reshuffle the pile of cards that they have Play can continue until one player has all cards or time has called 	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.	
Math Vocabulary	It is important to review	
Word for Today: converting time	academic math vocabulary	



Description: Converting time is important so you can compare apples to apples. When you are comparing time, start with the smallest amount of time in the combination and convert to that unit. For example if you are working with weeks and days, you would convert to days (you can always back up to weeks). If you are working with hours and days, convert to hours and then work your way back up to larger units.

Enter the term converting time in your Vocabulary Notebook. Share with a friend what the term means. Give an example.

Vocabulary Notebook Sample:

New Word	My Description
converting time	week = 7 days = 168 hours
Personal Connection	Drawing
I can convert weeks into hours	3:37

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

Converting Units of Time

We measure things in a variety of ways. One of the things that we measure is time. We can measure this in seconds, minutes, hours, days, weeks, months, years, decades and centuries. Being able to convert between these difference measures makes it easier for us to plan and organize our time.

Sometimes we will be busy thinking in days, and will be very frustrated trying to schedule time. Then we discover if we were thinking in weeks, it would be much more effective.

Today we are going to work on making conversions between minutes, hours, days, and weeks. It is important to understand that there are 60 minutes in every hour, 24 hours in every day, 7 days in every week. Knowing this will allow you to convert time among these units of measure.

It is also important to know which one of the time measures makes the most sense to use. It is interesting that when a baby is first born we talk about "days old", and as time goes by we progress to "weeks", then "months" and finally "years". How old do you need to be before you leave the $\frac{1}{2}$ off of your age in years? There is no particular right answer, but we are all familiar with the practice.

Practice several conversions on the board with students. When they are comfortable with the process they are ready for the activity.

How Much Time?

Directions:

- 1. Divide students into pairs.
- 2. Give each pair a deck of How Much Time? cards. Also give the pair a white board.
- 3. Shuffle the cards and place them face down in a grid that is 5 cards by 4 cards. If there are any remaining cards, place them to the side, face down.
- 4. Player 1 turns over 2 cards. If they are equivalent, then he/she may pick up the two cards and they can be replaced by other cards in the surplus deck. If they are



not equivalents, he/she turns the cards over and it is Player 2's turn.

- 5. Player 2 plays in the same way.
- 6. Play continues until all cards have been matched.

	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" player getting ready to play this game so he/she could get all the blocks are completed.

- 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.



3rd Grade How Much Time?

2 weeks and 5 days	6 weeks	4 weeks and 1 day	3 weeks and 9 days
5 weeks and 5 days	4 weeks	19 days	42 days
29 days	30 days	40 days	4 weeks and 13 days
5 weeks and 8 days	2 weeks and 30 days	4 weeks and 5 days	3 weeks and 5 days
1 week and 18 days		43 days	28 days
33 days	26 days	25 days	44 days



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	How Much Time?
Focus:	Measurement

Materials:

White boards Decks of cards Dominoes (Double 9)

Crayolas Vocabulary Notebooks

Socks (for erasers) Activity at the end of this lesson plan

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in converting time.

Gain prior knowledge by asking students the following questions

In what ways to we measure time? Which is the smallest common unit of measurement? How do we begin with that unit (second) and build up into years. Fill out a chart together that shows seconds to minutes to hours to days to weeks to years. What tools do we use to measure time?

Content (the "Meat")

Problem of the Day

Joey has 2 \$5 bills, 4 \$1 bills, 6 quarters, 5 dimes, 8 nickels and 7 pennies. Joey wants to buy a sweater that cost \$16.75. Does Joey have enough money? How do you know?

Fact Practice

Foreheader

- 1. Divide students into trios. Give each trio a deck of cards without face cards and jokers.
- 2. Shuffle the deck and give all of the cards to the referee who will be "judging" the contest
- 3. On go, players are each handed a card by the referee and **WITHOUT** looking, put the card face out on his/her forehead
- 4. The referee adds the two numbers together and states the answer
- 5. Each player looks at the other person's exposed number and names his/her own number
- **6.** Person who wins (accuracy and time), collects both cards
- 7. Play continues until all cards are gone.
- **8.** Players can repeat play (if there is another time) with each other so each has an opportunity to be both a player and referee

*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.



Math Vocabulary

Word for Today: converting time

Description: Converting time is important so you can compare apples to apples. When you are comparing time, start with the smallest amount of time in the combination and convert to that unit. For example if you are working with weeks and days, you would convert to days (you can always back up to weeks). If you are working with hours and days, convert to hours and then work your way back up to larger units.

Enter the term converting time in your Vocabulary Notebook. Share with a friend what the term means. Give an example.

Vocabulary Notebook Sample:

New Word	My Description	
converting time	week = 7 days = 168 hours	
Personal Connection	Drawing	
I can convert weeks into hours	3:37	

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

Converting Units of Time

We measure things in a variety of ways. One of the things that we measure is time. We can measure this in seconds, minutes, hours, days, weeks, months, years, decades and centuries. Being able to convert between these difference measures makes it easier for us to plan and organize our time.

Sometimes we will be busy thinking in days, and will be very frustrated trying to schedule time. Then we discover if we were thinking in weeks, it would be much more effective.

Today we are going to work on making conversions between minutes, hours, days, and weeks. It is important to understand that there are 60 minutes in every hour, 24 hours in every day, 7 days in every week. Knowing this will allow you to convert time among these units of measure.

It is also important to know which one of the time measures makes the most sense to use. It is interesting that when a baby is first born we talk about "days old", and as time goes by we progress to "weeks", then "months" and finally "years". How old do you need to be before you leave the $\frac{1}{2}$ off of your age in years? There is no particular right answer, but we are all familiar with the practice.

Practice several conversions on the board with students. When they are comfortable with the process they are ready for the activity.

How Much Time?

Directions:

- 1. Divide students into pairs.
- 2. Give each pair a deck of How Much Time? cards. Also give the pair a white board.



- 3. Shuffle the cards and place them face down in a grid that is 5 cards by 4 cards. If there are any remaining cards, place them to the side, face down.
- 4. Player 1 turns over 2 cards. If they are equivalent, then he/she may pick up the two cards and they can be replaced by other cards in the surplus deck. If they are not equivalents, he/she turns the cards over and it is Player 2's turn.
- 5. Player 2 plays in the same way.
- 6. Play continues until all cards have been matched.

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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.



3rd Grade How Much Time?

2 weeks and 5 days	6 weeks	4 weeks and 1 day	3 weeks and 9 days
5 weeks and 5 days	4 weeks	19 days	42 days
29 days	30 days	40 days	4 weeks and 13 days
5 weeks and 8 days	2 weeks and 30 days	4 weeks and 5 days	3 weeks and 5 days
1 week and 18 days	41 days	43 days	28 days
33 days	26 days	25 days	44 days



Component	Math
Grade Level:	3rd Grade
Lesson Title:	Converting Linear Measures
Focus:	Measurement

Materials:

White boards Vocabulary Notebooks Dice

Crayolas Socks (erasers for white board)
Cards Activity at the end of the lesson plan

Opening

State the objective

Today we are going to practice using our math vocabulary and math skills fractions.

Gain prior knowledge by asking students the following questions

What do you know about customary units of measurement? What are some examples of ways we measure distance? What do you know about the metric system of measurement? What are some examples of ways to measure distance using the metric system? Which is the smallest unit of measure before breaking things down into fractional parts?

Content (the "Meat")

Problem of the Day

If you have coins that total \$2.43, and you don't have any silver dollars or ½ dollars, what is the smallest number of coins that you can have?

Fact Practice

Fore-header

- 1. Divide students into trios. Give each trio a deck of cards without face cards and jokers.
- 2. Shuffle the deck and give all of the cards to the referee who will be "judging" the contest
- 3. On go, players are each handed a card by the referee and WITHOUT looking, put the card face out on his/her forehead
- 4. The referee adds the two numbers together and states the answer
- 5. Each player looks at the other person's exposed number and names his/her own number
- 6. Person who wins (accuracy and time), collects both cards
- 7. Play continues until all cards are gone.
- **8.** Players can repeat play (if there is another time) with each other so each has an opportunity to be both a player and referee

*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.



Math Vocabulary

Word for Today: customary measurement

Description: The term customary measurement refers to the system of measurement we use in the United States. Although we understand the metric system, we are more likely to speak in terms of inches, feet, yards, and miles instead of centimeters, meters, and kilometers. There are 12 inches in a foot, three feet in a yard, and 17,760 yards in a mile. Not only do you need to understand the units of measurement, it is important to understand which unit of measure is most appropriate to use in which situation.

Create an entry for the term "customary measurement" in your Vocabulary Notebook. Share with a peer.

Vocabulary Notebook Sample:

New Word	My Description
customary measurement	inches, feet, yards
Personal Connection	Drawing
A football field is 300 feet long.	B. W.

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

Conversion of Linear Measures

We also measure length and distance. We usually do this in inches, feet, yards, and miles. You need to know that there are 12 inches in every foot, 3 feet in every yard, and 1,760 yards in every mile. It is also important that you know which of these measuring tools it makes sense to use. For example, you would not want to measure the distance from your house to the store in inches, however, you would not want to measure your hand in miles.

Practice several conversions on the board with students. When they are comfortable with the process they are ready for the activity.

How Long Is It?

Directions:

- 1. Divide students into pairs.
- 2. Give each pair a set of How Long Is It cards and a game board. You will also want to give the students a white board.
- 3. Shuffle the cards.
- 4. Player 1 draws a card, makes the necessary conversion, locates the correct answer on the game board and marks with a token.
- 5. Player 2 then continues play in the same way.
- 6. Game is over when all answers are marked.



	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.



3rd Grade How Long Is It?

3 feet 12 inches	5 feet	1 foot and 20 inches	3 feet
8 feet and 1 inch	48 inches	60 inches	32 inches
36 inches	97 inches	2 feet and 10 inches	34 inches
4 feet 2 inches	50 inches	2 feet and 11 inches	35 inches
6 feet and 31 inches	103 inches	2 feet and 1 inch	25 inches
4 feet and 13 inches	59 inches	1 foot and 1 inch 13 inch	



How Long Is It? Game Board

	Finish				
	4 feet	60 inches	32 inches	1 yard	97 inches
					1 yard 1 foot
1 foot 22 inches	34 inches	2 yards 2 feet 1 inch	1 yard	2 feet 8 inches	1 yard 2 feet
1 yard 14 inches					
4 feet 2 inches	35 inches	2 feet 11 inches	2 yards 2 feet 7 inches	1 yard 5 feet inches	25 inches
					1 foot 13 inches
		59 inches	1 yard 2 feet 1 inch	13 inches	1 foot 1 inch
		START			



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Converting Linear Measurements 2
Focus:	Measurement

Materials:

White boards Vocabulary Notebooks

Cravolas dice

Socks (for erasers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in converting linear measurements.

Gain prior knowledge by asking students the following questions

What do you know about customary units of measurement? What are some examples of ways we measure distance? What do you know about the metric system of measurement? What are some examples of ways to measure distance using the metric system? Which is the smallest unit of measure before breaking things down into fractional parts?

Problem of the Day Your job is to teach your friend about congruent figures. Look at the shapes below. Write three questions that will help your friend determine which shapes are congruent. Fact Practice Addition Ladder 1. Give each student a white board (include marker or crayola) 2. Student should draw a ladder like the one below 9 Whe stud opports to teach your friend about congruent figures. Look at the shapes below. Write Market or Che happy think teach the student as white board (include marker or crayola) Stop Student should draw a ladder like the one below Whe student as white board (include market or crayola) Stop Stop Student should draw a ladder like the one below Whe student as white board (include market or crayola) Stop Stop Stop Student should draw a ladder like the one below Whe student as white board (include market or crayola)

3. Have student roll 2 dice, total the pips and then add that number to each of 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.



numbers in the ladder, writing the sum to the right of the number

Math Vocabulary

Word for Today: customary measurement

Description: The term customary measurement refers to the system of measurement we use in the United States. Although we understand the metric system, we are more likely to speak in terms of inches, feet, yards, and miles instead of centimeters, meters, and kilometers. There are 12 inches in a foot, three feet in a yard, and 1,760 yards in a mile. Not only do you need to understand the units of measurement, it is important to understand which unit of measure is most appropriate to use in which situation.

Create an entry for the term "customary measurement" in your Vocabulary Notebook. Share with a peer.

Vocabulary Notebook Sample:

New Word	My Description	
customary measurement	inches, feet, yards	
Personal Connection	Drawing	
A football field is 300 feet long.	B William Bridge	

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

Conversion of Linear Measures

We also measure length and distance. We usually do this in inches, feet, yards, and miles. You need to know that there are 12 inches in every foot, 3 feet in every yard, and 1,760 yards in every mile. It is also important that you know which of these measuring tools it makes sense to use. For example, you would not want to measure the distance from your house to the store in inches, however, you would not want to measure your hand in miles.

Practice several conversions on the board with students. When they are comfortable with the process they are ready for the activity.

How Long Is It?

Directions:

- 1. Divide students into pairs.
- 2. Give each pair a set of How Long Is It cards and a game board. You will also want to give the students a white board.
- 3. Shuffle the cards.
- 4. Player 1 draws a card, makes the necessary conversion, locates the correct answer on the game board and marks with a token.
- 5. Player 2 then continues play in the same way.
- 6. Game is over when all answers are marked.



	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.



3rd Grade How Long Is It?

3 feet 12 inches	5 feet	1 foot and 20 inches	3 feet
8 feet and 1 inch	48 inches	60 inches	32 inches
36 inches	97 inches	2 feet and 10 inches	34 inches
4 feet 2 inches	50 inches	2 feet and 11 inches	35 inches
6 feet and 31 inches	103 inches	2 feet and 1 inch 25 inch	
4 feet and 13 inches	59 inches	1 foot and 1 inch 13 inch	



How Long Is It? Game Board

	Finish				
	4 feet	60 inches	32 inches	1 yard	97 inches
					1 yard 1 foot
1 foot 22 inches	34 inches	2 yards 2 feet 1 inch	1 yard	2 feet 8 inches	1 yard 2 feet
1 yard 14 inches					
4 feet 2 inches	35 inches	2 feet 11 inches	2 yards 2 feet 7 inches	1 yard 5 feet inches	25 inches
					1 foot 13 inches
		59 inches	1 yard 2 feet 1 inch	13 inches	1 foot 1 inch
		START			



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Round Me Off
Focus:	Rounding Numbers

Materials:

White boards Vocabulary Notebooks Dominoes

Crayolas Deck of Cards for each pair

Activity at the end of this lesson plan Socks (use as erasers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in rounding numbers.

Gain prior knowledge by asking students the following questions

What does it mean to round a number off? When would it make sense to do that? When would you not want to round off a number? What are the guidelines for rounding off a number? What would need to be in place for you to raise the target digit? What would need to be in place for you to leave the target number alone?

Content (the "Meat")

Problem of the Day

Joel buys a CD that cost \$7.71. She gives the clerk a \$10.00 bill. How much change will she get? How do you know?

Fact Practice

Target

- 1. Divide students into trios
- 2. Each trio needs a deck of cards without face cards and jokers
- 3. Place the cards face up in a TicTac Toe Grid
- 4. Turn up a 10th card which will be to the side and becomes the target number (aces count as 1)
- 5. Each player makes an equation with some or all of the numbers in the grid to equal the target number. Students may add or subtract.
- 6. Each card may be used only one time in the equation
- 7. As the cards are being picked up, the player must say the equation aloud—for example if the target card is 10, then I could say 6 + 4 = 10, and pick up the 6 and the 4.
- 8. After one player finishes his/her turn, then the cards taken are replaced by cards from the remaining deck
- 9. Player with the most cards at the end of the game win

*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.



Math Vocabulary

Word for today: rounding numbers

Description: Rounding a number means telling you an estimate or "ball park" of what you are including. Rounding a number is more effective that simply a guess, it is a process that helps you apply a rounding strategy consistently. The first step is to determine which digit you want to be the target digit. Then you look at the digit immediately to its right. If the digit is 5 or higher, you change the target number to one more. If the digit is 4 or less, you leave the digit alone. Either way, you change all of the number to the right o the target number to zeros.

Enter the term rounding numbers into your Vocabulary Notebook. Discuss your entry with your friend.

Vocabulary Notebook Sample:

New Word	My Description
rounding numbers	5 or more go 个, 4 or less leave alone
Personal Connection	Drawing
Can you round that number off?	<u>3</u> 56 rounds to 400

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 Rounding Numbers

Rounding Numbers

The reason that we round numbers is create a number that is close to the original number that will be easier for us work within our mind. To round a number follow the steps below:

Write the number.

Determine the place of the last digit you want to be represented by a digit other than 0. If the number to the right of this digit is 5 or higher, round the digit up to the next number. If the number to the right of this digit is 4 or less, leave the digit as it is.

For example, in the number 367, I want to leave the digit 3 as the last place. I look to the right and see a 6 so I know that I can round the 3 up to a 4, so my rounded number would be 400. What I would be saying is that 367 is closer to 400 than it is to 300. Although the number is less accurate, it is easier for me to think about 400 items. I the number was 324, and I wanted to have a digit other than 3 in the hundreds place, I would look to the right, see the 2 and leave the 3 alone. I would be thinking that 324 is closer to 300 than it is 400.

Practice several of these problems in which you round numbers with the students. Talk through what you are thinking. When students are comfortable, they are ready to work as a group on the activity.

Round Me Off!

Directions:

- 1. Divide students into pairs.
- 2. Give each pair a game board and a deck of Round Me Off cards and game board. You will also want the students to have a white board.



- 3. Shuffle the cards and place face down between the pair and next to the game board.
- 4. Player 1 draws a card, rounds the number, and if correct, rolls the die and move his/her token that many spaces on the game board.
- 5. If he/she is not correct, then the token remains in the same place.
- 6. Player 2 continues in the same way.
- 7. Game is over when one player gets to the finish line.

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.



3rd Grade Round Me Off

<u>6</u> 71	<u>9</u> 05	<u>4</u> 55	<u>3</u> 50
<u>3</u> 20	<u>8</u> 18	<u>7</u> 89	<u>3</u> 48
<u>4</u> 02	<u>4</u> 67	<u>7</u> 69	<u>7</u> 10
<u>7</u> ,433	<u>3,</u> 860	<u>4</u> ,560	<u>2</u> ,087
<u>7</u> ,500	<u>9</u> ,350	<u>4</u> ,246	<u>1</u> ,500
<u>7</u> ,777	<u>7</u> ,477	<u>8</u> ,745	<u>5</u> ,200



3rd Grade Round Me Off

Finish ↓			
START ↑			



academic math vocabulary

Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Round Me Off
Focus:	Rounding Numbers

Materials:

Word for today: rounding numbers

White boards Vocabulary Notebooks Materials at end of lesson plan
Crayolas 12-sided dice for each pair Deck of Card for every 2 students

Number Hunt Work Sheet Socks (for erasers) Dominoes

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in rounding off.

Gain prior knowledge by asking students the following questions

What does it mean to round a number off? When would it make sense to do that? When would you not want to round off a number? What are the guidelines for rounding off a number? What would need to be in place for you to raise the target digit? What would need to be in place for you to leave the target number alone?

Content (the "Meat")		
Problem of the Day	*Activity → Teachable Moment(s) throughout	
Dad is building a sandbox that will be exactly 9 feet wide and 13 feet long. How many feet of wood will Dad need to buy to frame the sandbox? How do you know?	During the lesson check in with students repeatedly.	
Fact Practice Number Hunt	Check in about what is happening and what they are thinking.	
 Divide students into pairs Each pair needs a Number Hunt sheet (attached to this lesson plans) 	Take advantage of any teachable moments.	
 Player rolls two, 12-sided dice. Player adds or subtracts the two numbers. If the number is not yet covered, then player may cover the number. Next player repeats steps 1-3. Winner is determined by who has the most numbers covered. 	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.	
Math Vocabulary	It is important to review	



Description: Rounding a number means telling you an estimate or "ball park" of what you are including. Rounding a number is more effective that simply a guess, it is a process that helps you apply a rounding strategy consistently. The first step is to determine which digit you want to be the target digit. Then you look at the digit immediately to its right. If the digit is 5 or higher, you change the target number to one more. If the digit is 4 or less, you leave the digit alone. Either way, you change all of the number to the right o the target number to zeros. Enter the term rounding numbers into your Vocabulary Notebook. Discuss your entry with your friend.

Vocabulary Notebook Sample:

New Word	My Description
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Can you round that number off?	<u>3</u> 56 rounds to 400

often throughout the day.
Complete the Vocabulary
notebook for each word.
When possible, have
students experience the wo

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 Rounding Numbers

Rounding Numbers

The reason that we round numbers is create a number that is close to the original number that will be easier for us work within our mind. To round a number follow the steps below:

Write the number.

Determine the place of the last digit you want to be represented by a digit other than 0. If the number to the right of this digit is 5 or higher, round the digit up to the next number. If the number to the right of this digit is 4 or less, leave the digit as it is.

For example, in the number 367, I want to leave the digit 3 as the last place. I look to the right and see a 6 so I know that I can round the 3 up to a 4, so my rounded number would be 400. What I would be saying is that 367 is closer to 400 than it is to 300. Although the number is less accurate, it is easier for me to think about 400 items. I the number was 324, and I wanted to have a digit other than 3 in the hundreds place, I would look to the right, see the 2 and leave the 3 alone. I would be thinking that 324 is closer to 300 than it is 400.

Practice several of these problems in which you round numbers with the students. Talk through what you are thinking. When students are comfortable, they are ready to work as a group on the activity.

Round Me Off! Directions:

- 1. Divide students into pairs.
- 2. Give each pair a game board and a deck of Round Me Off cards and game board. You will also want the students to have a white board.
- 3. Shuffle the cards and place face down between the pair and next to the game board.
- 4. Player 1 draws a card, rounds the number, and if correct, rolls the die and move his/her token that many spaces on the game board.



- 5. If he/she is not correct, then the token remains in the same place.
- Player 2 continues in the same way.Game is over when one player gets to the finish line.

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.



Number Hunt

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

Number Hunt

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



3rd Grade Round Me Off

<u>6</u> 71	<u>9</u> 05	<u>4</u> 55	<u>3</u> 50
<u>3</u> 20	<u>8</u> 18	<u>7</u> 89	<u>3</u> 48
<u>4</u> 02	<u>4</u> 67	<u>7</u> 69	<u>7</u> 10
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<u>7</u> ,777	<u>7</u> ,477	<u>8</u> ,745	<u>5</u> ,200



3rd Grade Round Me Off

Finish ↓			
START ↑			



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Adding and Subtracting
Focus:	Addition and Subtraction

Materials:

White boards Vocabulary Notebooks dice

Crayolas deck of cards, no face cards or jokers for math fact practice

Activity at the end of the lesson plan Socks (use as erasers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition and subtraction.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What do you know about addition? When do you use addition? What do you know about subtraction? When do you use this operation? What is the answer to an addition problem called? What is the answer to a subtraction problem called?

Content (the "Meat")				
Problem of the Day Admission to the movies is \$5.50 for adults and \$3.75 for children on Saturday afternoon. If a	*Activity → Teachable Moment(s) throughout			
family of 7 goes to the movies (2 adults and the rest kids), how much will it cost?	During the lesson check in with students repeatedly.			
Fact Practice Draw!	Check in about what is happening and what they are thinking.			
 Divide students into pairs and give each pair a deck of cards Remove the face cards and jokers from the deck of cards. 	Take advantage of any teachable moments.			
3. Shuffle the deck.	Stop the class and focus on a			
4. Decide who will go first.	student's key learning or understanding. Ask open-			
5. First player draws two cards.6. Student adds or subtracts the cards.	ended questions to determine what the rest of			
7. Student writes his/her problem on the white board, writing a complete number	the group is thinking.			
sentence. 8. Students take turns drawing cards and creating problems.	When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.			
Math Vocabulary	It is important to review			



Word for Today: operations

Description: The term "operations" refers to such mathematical activities as addition, subtraction, multiplication, and division. Addition and subtraction are reciprocal operations just like multiplication and division are reciprocal. The operations of addition and subtraction have a "recipe" of steps that you follow to complete the process correctly.

Enter the term "operations" in your Vocabulary Notebook. Talk with a peer about what this term means to you.

Vocabulary Notebook Sample:

New Word	My Description
operations	begin adding and subtracting with the units place
Personal Connection	Drawing
I know how to add and subtract.	tand-

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 and Subtraction

Addition and Subtraction

We will spend the next four days reviewing addition and subtraction. Some of the addition and subtraction will require regrouping others will not.

Addition and Subtraction

Directions:

- 1. Divide the students into pairs.
- 2. Give each pair two decks of cards with face cards, tens, and jokers removed, and one 6-sided die.
- 3. Shuffle the cards and place between the students.
- 4. Player 1 draws 4-6 cards.
- 5. Player 1 rolls the dice and if the number 1 odd he/she must create a subtraction problem, if the number is even, he/she must create an addition problem.
- 6. Player creates and solves the problem and earns 1 point.
- 7. Player 2 continues in the same way.
- 8. Game is over when one player reaches 15 points.

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:	3 rd Grade
Lesson Title:	Adding and Subtracting
Focus:	Addition and Subtraction

Materials:

White boards Vocabulary Notebooks dice

Cravolas Double 9 Dominoes

Activity at the end of this lesson plan

Socks (use for erasers)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition and subtraction.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What do you know about addition? When do you use addition? What do you know about subtraction? When do you use this operation? What is the answer to an addition problem called? What is the answer to a subtraction problem called?

Content (the "Meat")

Problem of the Day

If there are 12 balls thrown out for kids to play with during recess and they are a combination of soccer balls and volley balls, and 7 of the balls are volley balls, what fraction of the balls are for playing soccer? How do you know?

Fact Practice

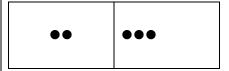
Spots and Dots

There is a master of Double 9 Dominos attached to this lesson plan. You will need 1 full set for each pair of students in your class. It is recommended that you duplicate on card stock and if possible, laminate for use again in the future.

Players sit across from each other.

Dominoes are between them, face (or spots) down.

Each student draws a domino and writes the addition problem on their white board, adding the numbers represented by the spots Example: Domino drawn is



Addition: 2 + 3 = 5

*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.



Math Vocabulary

Word for Today: operations

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Vocabulary Notebook Sample:

New Word	My Description
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Personal Connection	Drawing
I know how to add and subtract.	tand-

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 and Subtraction

Addition and Subtraction

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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.



	Closing	
	Review	
Say:		
	what we did today.	
Did we achieve	ve our objectives?	
	Debrief	

Three Whats

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

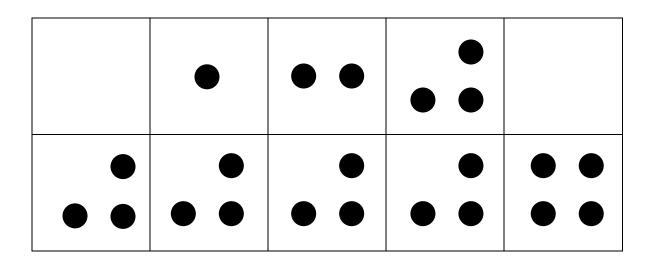
What advice would you give to a "new" student getting ready to do this activity?

- 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.



Double 9 Dominoes

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Component	Math
Grade Level:	3 rd Grade
Lesson Title:	The Four Operations
Focus:	Operations

Materials:

White boards Vocabulary Notebooks

Crayolas dice (6-sided and 12-sided for each pair)
Socks (for erasers) deck of card (one for every 2 players)

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What do you know about addition? What are the steps to completing an addition problem? What do you know about multiplication? What are the steps to completing a subtraction problem? What do you know about multiplication? What are the steps to completing a multiplication problem? What do you know about division? What are the steps to completing a division problem?

Content (the "Meat")

Problem of the Day

Select one of the following three shapes and then write three clues so a classmate would know which shape you are talking about.







Fact Practice

Fact Family

A Fact Family is 3 numbers which have a relationship in addition and subtraction. For example, the number 9, 4, and 13 have a particular relationship in math. This family has four members:

9 + 4 = 13

4 + 9 = 13

13 - 9 = 4

13 - 4 = 9

Students should roll 2 dice and create a Fact Family by writing the members of the family on the white board. Student should roll a total of 5 times, creating 5 Fact Families

*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.



Math Vocabulary

Word for Today: operations

Description: The term "operations" refers to such mathematical activities as addition, subtraction, multiplication, and division. Addition and subtraction are reciprocal operations just like multiplication and division are reciprocal. The operations of addition and subtraction have a "recipe" of steps that you follow to complete the process correctly.

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Vocabulary Notebook Sample:

New Word	My Description
operations	begin adding, subtracting, multiplying and dividing with the units place
Personal Connection	Drawing
I know how to do all four operations.	+, X,

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, Subtraction, Multiplication, Division

The Four Operations

During third grade students learn to add, subtract, multiply and divide.

Four Operations

Directions:

- 1. Make a list of the numbers between 10 and 25. Take five 6-sided dice and roll them. Challenge the students to use the numbers rolled, and add, subtract, multiply or divide to equal the numbers between 10 and 25. Once the dice have been rolled, they can't be rolled again. All dice must be used in each problem.
- 2. For example, if I rolled a 3, 4, 5, 2, and 1, I would say 3 + 4 + 5 + 2 + 1 = 15. I could also say 3 + 4 5 + 2 1 = 3 and I would not be able to use that equation because 3 is not within the range of 10 -25.
- 3. Play is over when team has found a way to mark out every 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.



	Closing	
	Review	
Say:		
 Please recap what we did today. 		
 Did we achieve our objectives? 		
	Debrief	
Three Whats		
Ask the following three what questions:		

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?

2

- 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:	3 rd Grade
Lesson Title:	Four Operations 2
Focus:	Operations

Materials:

White boards Vocabulary Notebooks

Cravolas Deck of cards

Socks (use as erasers) Dice

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What do you know about addition? What are the steps to completing an addition problem? What do you know about multiplication? What are the steps to completing a subtraction problem? What do you know about multiplication? What are the steps to completing a multiplication problem? What do you know about division? What are the steps to completing a division problem?

Content (the "Meat")

Problem of the Day

A garden plot is 5 yards long and 3 yards wide. What is the perimeter of the garden plot? What is the area of garden plot? How do you know?

Fact Practice Bump It Up! Add A Zero

- 1. Divide students into pairs
- 2. Give each pair a white board and a deck of cards (without face cards, jokers, or 10s)
- 3. The object of this fact practice is to sum numbers until you reach 1,000.
- 4. Student draws 2 cards, adds the value of the cards together, multiplies by ten and writes the total on the sheet.
- 5. It is not the other person's turn to do the same
- 6. When play returns to the first player, the process is repeated, although this time, the totals are added together.
- 7. First person to 1,000 wins.
- 8. Example: Player draws a 7 and a 4. Total is 11. Multiply by 10 (add the zero) equals 110. Next turn, player draws a 3 and a 2 which totals 5. Multiply by 10 and I now add

*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

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

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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.

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50 to 110 for a total of 160.

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Activity Addition, Subtraction, Multiplication, Division

The Four Operations

During third grade students learn to add, subtract, multiply and divide.

Four Operations

Directions:

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Three Whats

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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:	3 rd Grade	
Lesson Title:	Student Activity Choice	
Focus:	Review	

Materials:

Game Boards and materials from this week.

Prizes (these can be time, a leadership role, opportunities to be the "teacher"

Opening

State the objective

Today we are going to have fun playing a game. Students will be able to choose from the games learned in the past two weeks.

Content (the "Meat")

teams

Activity

Today is a review lesson. Students should choose from the following activities:

How Much Time?
How Long Is It?
Round Me Off
Addition and Subtraction
Four Operations

osi	

Review

Say:

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

- 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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