

Math Overview

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

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

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



Component	Math
Grade Level:	2 nd – 5 th Grade
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	*Activity → Teachable Moment(s) <i>throughout</i>
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:	During the lesson check in with students repeatedly.
If a pattern looks like this: ♥♥♥ ⊕ ♥♥♥ ⊕ ♥, what is next?	Check in about what is
Math Facts	thinking.
The Fact Practice activity will be different each day. You may use dice, dominoes, cards, white board, or other items to practice the math facts that are appropriate for the grade level	Take advantage of any teachable moments.
students are in. In order for youth to practice effectively, you will need to teach each game following the protocol below.	Stop the class and focus on a student's key learning or
 Step 1: Basic Information Tell the students the name of the game. Tell them the skill that they will be practicing. Tell them the materials they will need to play the game. Tell them how many people may play the game at one time. Tell them if the game is cooperative (all students working together to defeat the game) or competitive (each student hopes to defeat the other players). Tell them how they will know that the game is over. Remind them of how to choose who will be first. Remind them at the end of the game that they will need to do to clean-up. 	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.
Step 2: Demonstration - Talk the students through the game.	



-	Give the rules	(it is best if they	/ can see these).
			y our 500 thosoj.

- 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 X 9 = 36 36 ÷ 4 = 9 36 ÷ 9 = 4

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

9 + 4 = 134 + 9 = 1313 - 4 = -120 = 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 studen from what they experienced. 		
Note: This is the last "practice" for the game. The the game by this point. There will be only minor two		
 Step 5: Play Have students play the game.' Circulate and answer questions as needed Debrief the game at the end asking stude What skill did you practice? What did you learn? What about the game was enjoy How would you have taught the statement of the statem		
Math Vo Each lesson will also have a vocabulary word is may be reviewed more than one time. Youth is Academic Vocabulary Notebook. The Vocabu practice working on this for the next 11 days. Word for Today: odd Description: Numbers that cannot be divided Complete the journal entry in your Vocabulary 2, explain the word in your own words. In space demonstrate your understanding of the word be Vocabulary Notebook Sample: New Word	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.	
odd	Numbers that are not even	academic math vocabulary often throughout the day.
Personal Connection Are these numbers odd or even?	Drawing 3, 5, 7, and 9 are odd numbers	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.	
Ac Each day there will also be a mathematics activity do an activity here since you are learning how to p 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.		
٠	Did we achieve our objectives?		

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.

Debrief



Component	Math
Grade Level:	2 nd – 5 th Grade
Lesson Title:	Addition or Multiplication Was
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	*Activity → Teachable
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	Moment(s) <i>Inrougnout</i>
work the problem on a white board either alone or with a partner. Following is a sample	with students repeatedly.
problem: If you have 19 chocolate chip cookies and 13 Oreos, how many cookies do you have	Check in about what is happening and what they are
altogether?	thinking.
Math Facts The Fact Practice activity will be different each day. You may use dice, dominoes, cards,	Take advantage of any teachable moments.
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.	Stop the class and focus on a student's key learning or understanding. Ask open-
 Step 1: Basic Information Tell the students the name of the game. Tell them the skill that they will be practicing. 	ended questions to determine what the rest of the group is thinking.
 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). 	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 at the end of the game that they will need to do to clean-up. 	
Step 2: Demonstration	

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-	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 UNIOUKEIS to Make observations of ask questions.	
_	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	
Additio	on War or Multiplication War	
•	Divide students into pairs. Give each pair a deck of cards without face cards and	
	iokers	
•	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 (or multiply) the 2 numbers that have been turned up	
•	First person to give the answer either wins the cards because the answer is correct, or	
•	First person to give the answer either wins the cards because the answer is correct, of	
-	At the end of round, students may reschiffle the pile of cards that they have	
•	At the end of round, students may reshume the pile of Calus that they have.	
•	r iay can continue until one player has all calus of time has called.	
	Student Practice	
Genera	I 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 or 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.	
	carus you might want to have the students display their hand of Cards during Open Play.	
-	from what they experienced	
Note: 7	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 tw		
Step 5: Play - Have students play the game.' - Circulate and answer questions as needed - Debrief the game at the end asking studer - What skill did you practice? - What did you learn? - What about the game was enjoya - How would you have taught the game		
Math Vo Each lesson will also have a vocabulary word t may be reviewed more than one time. Youth n Academic Vocabulary Notebook. The Vocabul practice working on this for the next 11 days. Word for Today: math Description: Math is the word we use that is s numbers, patterns, space, and change. In mat and statistics, algebra, and mathematical reaso Complete the journal entry in your Vocabulary 2, explain the word in your own words. In space demonstrate your understanding of the word by	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	It is important to review academic math vocabulary
math	A term that is short for mathematics and is about numbers and patterns	often throughout the day. Complete the Vocabulary notebook for each word. When possible, have
Personal Connection Drawing Math is one of my favorite subjects in school. Image: Connection school		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.
Act Each day there will also be a mathematics activity t do an activity here since you are learning how to pl 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 Grade
Lesson Title:	Fore-Header
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 leasen. Write the problem on abort paper. Let would	*Activity → Teachable Moment(s) <i>throughout</i>
work the problem on a white board either alone or with a partner. Following is a sample	During the lesson check in with students repeatedly.
problem: If you have 32 marbles and you lose 12, how many marbles do you have left?	Check in about what is happening and what they are
Math Facts	thinking.
The Fact Practice activity will be different each day. You may use dice, dominoes, cards, white board, or other items to practice the math facts that are appropriate for the grade level	Take advantage of any teachable moments.
students are in. In order for youth to practice effectively, you will need to teach each game following the protocol below.	Stop the class and focus on a student's key learning or
 Step 1: Basic Information Tell the students the name of the game. Tell them the skill that they will be practicing. Tell them the materials they will need to play the game. Tell them how many people may play the game at one time. Tell them if the game is cooperative (all students working together to defeat the game) or competitive (each student hopes to defeat the other players). Tell them how they will know that the game is over. Remind them of how to choose who will be first. Remind them at the end of the game that they will need to do to clean-up. 	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.
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

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 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 stude What skill did you practice? What did you learn? What about the game was enjoy How would you have taught the 		
Math V	ocabulary	It is important to review
Each lesson will also have a vocabulary word may be reviewed more than one time. Youth Academic Vocabulary Notebook. The Vocabu practice working on this for the next 11 days. Word for Today: operations Description: The word operation refers to a r are addition, subtraction, multiplication, and di +, -, X, and ÷. Complete the journal entry in your Vocabulary 2, explain the word in your own words. In spa demonstrate your understanding of the word b	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:		It is important to review
New Word	My Description	academic math vocabulary often throughout the day.
operations	There 4 basic operations: addition, subtraction, multiplication and division	Complete the Vocabulary notebook for each word.
Personal Connection How many of the operations can you complete?	Drawing	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.
Ac	Focus on having young	
Each day there will also be a mathematics activity do an activity here since you are learning how to p be added to the Homework Center.	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 Grade
Lesson Title:	Multiplication or Addition Ladder
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	*Activity → Teachable Moment(s) <i>throughout</i>
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	During the lesson check in with students repeatedly.
problem:	Check in about what is
What do these symbols mean: < and >. Give an example.	happening and what they are
Math Facts	thinking.
The Fact Practice activity will be different each day. You may use dice, dominoes, cards, white board, or other items to practice the math facts that are appropriate for the grade level	Take advantage of any teachable moments.
students are in. In order for youth to practice effectively, you will need to teach each game following the protocol below.	Stop the class and focus on a student's key learning or
 Step 1: Basic Information Tell the students the name of the game. Tell them the skill that they will be practicing. Tell them the materials they will need to play the game. Tell them how many people may play the game at one time. Tell them if the game is cooperative (all students working together to defeat the game) or competitive (each student hopes to defeat the other players). Tell them how they will know that the game is over. Remind them of how to choose who will be first. Remind them at the end of the game that they will need to do to clean-up. 	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.
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

Multiplication (or Addition) Ladder

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



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

- 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 game by this point. There will be only minor		
Step 5: Play - Have students play the game.' - Circulate and answer questions as need - Debrief the game at the end asking stude - What skill did you practice? - What did you learn? - What about the game was enjoy - How would you have taught the		
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Personal Connection	Drawing	When possible, have
Do you know how to do subtraction problems?	(Ex. 4 students creating a right angle, multiple students acting out an equation). Vocabulary Notebooks can be made from ½ of a	
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A Each day there will also be a mathematics activit do an activity here since you are learning how to 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.		
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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.

Debrief



Component	Math
Grade Level:	2 nd – 5 th Grade
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")

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Problem of the Day In this segment you will have a problem for students to complete. The problems will vary and	*Activity → Teachable Moment(s) <i>throughout</i>
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	During the lesson check in with students repeatedly.
problem: If there are 5 rows and each row has 5 chairs in it, how many chairs are there?	Check in about what is
Math Facts	happening and what they are thinking.
The Fact Practice activity will be different each day. 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	Take advantage of any teachable moments.
 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. Remind them of how to choose who will be first. 	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.
 Step 2: Demonstration Talk the students through the game. 	



_	Give the rules (it is best if they can see these)	1
-		/·

- 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)
- 6. Process continues until all spokes have an equation

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.



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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?

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 Grade
	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	*Activity → Teachable Moment(s) <i>throughout</i>
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:	During the lesson check in with students repeatedly.
If you have 11 rows and each row has 6 chairs in it, how many chairs do you have in all?	Check in about what is happening and what they are thinking
Math Facts	Take advantage of any
The Fact Practice activity will be different each day. You may use dice, dominoes, cards,	teachable moments.
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.	Stop the class and focus on a student's key learning or understanding. Ask open-
Step 1: Basic Information - Tell the students the name of the game. Tell them the skill that they will be practicing	determine what the rest of the group is thinking.
 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 	When possible, engage students in a "teach to learn" opportunity and have the
competitive (each student hopes to defeat the other players).	student become the teacher.
- Tell them how they will know that the game is over.	
 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.

Players sit across from each other.

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

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 (n cards you might want to have the students Check for understanding by asking studen from what they experienced. Note: This is the last "practice" for the game. The the game by this point. There will be only minor two 	
 Step 5: Play Have students play the game.' Circulate and answer questions as needed Debrief the game at the end asking student What skill did you practice? What did you learn? What about the game was enjoyation How would you have taught the game 	
Math Vo Each lesson will also have a vocabulary word the may be reviewed more than one time. Youth me Academic Vocabulary Notebook. The Vocabulary practice working on this for the next 11 days. Word for Today: pentagon Description: A flat-5 side figure. It looks a littl Complete the journal entry in your Vocabulary N 2, explain the word in your own words. In space demonstrate your understanding of the word by Vocabulary Notebook Sample: New Word pentagon Personal Connection The Pentagon is a 5-sided building.	It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation). Vocabulary Notebooks can be made from ½ of a composition book. It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation). 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.



Double 9 Dominoes

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Component	Math
Grade Level:	2 nd – 5 th Grade
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?	*Activity → Teachable Moment(s) <i>throughout</i> During the lesson check in with students repeatedly. Check in about what is happoping and what they are
Math Facts The Fact Practice activity will be different each day. 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 now 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.	 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.
Step 2: Demonstration - Talk the students through the game.	



	Cive the miles (it is heat if they see see these)	
-	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 	l.	
 Debrief the game at the end asking studen 	ts:	
 What skill did you practice? 		
 What did you learn? 		
 What about the game was enjoya 	ble? What makes you say that?	
 How would you have taught the g 	ame differently?	
Math Vo	cabulary	It is important to review
Each lesson will also have a vocabulary word th	nat is appropriate for the grade level. The word	academic math vocabulary
may be reviewed more than one time. Youth ne	eed to complete the vocabulary entry in an	
Academic Vocabulary Nolebook. The Vocabula	ary section will follow this pattern. We will	Complete the vocabulary
practice working on this for the next in days.		
word for Today: circle		when possible, have
Description: A circle is a 2-dimensional shape	made by drawing a curve that is always the	Students experience the word
same distance from the center. A circle is roun	d.	(EX. 4 Students Creating a
Complete the journal entry in your Vocabulary f	Notebook. In space I, write the word. In space	acting out an equation)
2, explain the word in your own words. In space	e 3 use the word in a sentence. In space 4	Vegebulery Netebooks con
demonstrate your understanding of the word by	drawing a picture of the word.	bo mado from 16 of a
		composition book
Vocabulary Notebook Sample:	M. Descalation	this important to review
New Word	My Description	It is important to review
		academic main vocabulary
circle	A closed figure that is made with a single	
	arching line	Complete the Vocabulary
		notebook for each word.
Personal Connection	Drawing	When possible, have
		students experience the word
That clock is a circle.		(EX. 4 Students creating a
		nght angle, multiple students
		vocabulary Notebooks can
		be made from ½ of a
Acti	νιιγ	FOCUS ON NAVING YOUNG
		people compete in pairs of
Each day there will also be a mathematics activity the	hat will occur in this space. This week we will not	is mastered you can utilize it
be added to the Homework Center	ay each of the Math Fact Games. This activity Can	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 Grade
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 n this segment you will have a problem for students to complete. The problems will vary and	*Activity → Teachable Moment(s) <i>throughout</i>
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	During the lesson check in with students repeatedly.
broblem: How much money do you have if you have 3 dimes, 4 nickels, 8 pennies, and one quarter?	Check in about what is happening and what they are thinking
Math Facts The Fact Practice activity will be different each day. 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. - 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.	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.

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 tall another student "how" to play the game	
-	from what they observed	
	nom what they observed.	
	Fact Dreatice	
Taraot	Fact Practice	
1 aryer	Divide students into trios	
2	Each trio needs a deck of cards without face cards and jokers	
2.	Place the cards face up in a TicTac Toe Grid	
J. Л	Turn up a 10^{th} card which will be to the side and becomes the target number (aces count as	
ч.	1)	
5	Fach player makes an equation with some or all of the numbers in the grid to equal the target	
5.	number. Students may add subtract multiply or divide	
6	Each card may be used only one time in the equation	
0. 7	As the cards are being nicked up, the player must say the equation aloud—for example if the	
1.	The value of the being picked up, the player must say the equation about -101 example in the target card is 10, then I could say 5 x 2 - 10, and pick up the 5 and the 2	
0	After one player finishes his/her turn, then the cards taken are replaced by cards from the	
0.	And the player ministes mistrict runn, men me callus raken are replaced by callus 110111 the	
0	Dever with the most early at the and of the game win	
9.	Player with the most callas at the end of the game will.	
	Student Practice	
Genera	Il quidelines 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 name (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	
	salad jed might want to have the stadents display their hand of ourds during open hay.	1

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

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Note: This is the last "practice" for the game. The majority of students will have a full understanding of the game by this point. There will be only minor tweaks and adjustments that need to be made.		
 Step 5: Play Have students play the game.' Circulate and answer questions as needed. Debrief the game at the end asking students: What skill did you practice? What did you learn? What about the game was enjoyable? What makes you say that? 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 picture of the word. Vocabulary Notebook Sample: My Description New Word My Description Have you seen a triangle? Drawing		It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation). Vocabulary Notebooks can be made from ½ of a composition book. It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a
		right angle, multiple students 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 Grade
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	*Activity → Teachable
In this segment you will have a problem for students to complete. The problems will vary and	Moment(s) throughout
will be both review and in line with the lesson. Write the problem on chart paper. Let youth	During the lesson check in
work the problem on a white board either alone or with a partner. Following is a sample	with students repeatedly.
problem: $\land \land \neg \Box \land$	Check in about what is
Think of the following shapes: $\Box \Box \Box \Box$	happening and what they are
Organize them in some way and then share that organization with a partner.	thinking.
Math Facts	Take advantage of any
The Fact Practice activity will be different each day. You may use dice, dominoes, cards,	teachable moments.
white board, or other items to practice the math facts that are appropriate for the grade level	Stop the class and focus on a
students are in. In order for youth to practice effectively, you will need to teach each game	student's key learning or
following the protocol below.	understanding Ask open-
	ended questions to
Step 1: Basic Information	determine what the rest of
- Tell the students the name of the game.	the group is thinking.
- Tell them the materials they will be practicing.	When possible engage
- Tell them the materials they will need to play the game.	students in a "teach to learn"
- Tell them now many people may play the game at one time.	opportunity and have the
- Tell them if the game is cooperative (all students working together to defeat the game) or	student become the teacher.
competitive (each student hopes to defeat the other players).	
- Tell them how they will know that the game is over.	
- Remind them of how to choose who will be first.	
- Remind them at the end of the game that they will need to do to clean-up.	
Step 2: Demonstration	



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

Step 3: Model

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

Fact Practice

Number Hunt (Grades 1-3—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.

Winner is determined by who has the most numbers covered.

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

- 7. Divide students into pairs.
- 8. Each pair needs a Product Hunt sheet (attached to this lesson plans).
- 9. Player rolls two, 12-sided dice.
- 10. Player multiplies the two numbers.
- 11. If the product is not yet covered, then player may cover the product.
- 12. Next player repeats steps 1-3.
- 13. 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 (n cards you might want to have the students Check for understanding by asking studen from what they experienced. 		
Note: This is the last "practice" for the game. The the game by this point. There will be only minor two	majority of students will have a full understanding of eaks and adjustments that need to be made.	
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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: square Description: A shape that has four sides that are all equal in length. Complete the journal entry in your Vocabulary Notebook. In space 1, write the word. In space 2, explain the word in your own words. In space 3 use the word in a sentence. In space 4 demonstrate your understanding of the word by drawing a picture of the word.		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
New Word	My Description	composition book.
square	A four-sided shape with 4 equal sides and 4 equal right angles	It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary
Personal Connection That clock is in the shape of a square.	Drawing	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.



Product Hunt

48	20	81	3	45	27
1	24	108	77	7	40
120	72	96	8	18	60
14	144	70	22	15	11
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 Grade
Lesson Title:	Bump I 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	*Activity -> Teachable
In this segment you will have a problem for students to complete. The problems will vary and	Moment(s) throughout
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	During the lesson check in with students repeatedly.
problem:	Check in about what is
Math Facts	happening and what they are thinking.
The Fact Practice activity will be different each day. 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.	Take advantage of any teachable moments. Stop the class and focus on a student's key learning or
 Step 1: Basic Information Tell the students the name of the game. Tell them the skill that they will be practicing. Tell them the materials they will need to play the game. Tell them how many people may play the game at one time. Tell them if the game is cooperative (all students working together to defeat the game) or competitive (each student hopes to defeat the other players). Tell them how they will know that the game is over. Remind them of how to choose who will be first. Remind them at the end of the game that they will need to do to clean-up. 	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.
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 (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.

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 th		
Player may mark the same number.		
Student General guidelines for students playing games Step 4: Open Play - Divide students into small groups (you mig each of these small groups) - Have the students play a practice game (more cards you might want to have the students students for what they experienced.		
Note: This is the last "practice" for the game. The the game by this point. There will be only minor two	majority of students will have a full understanding of eaks 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 studen o What skill did you practice? o What did you learn? o What about the game was enjoya o How would you have taught the g	I. ts: ble? What makes you say that? ame differently?	
Math Vo	cabulary	It is important to review
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.		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
New Word	My Description	composition book.
even	Numbers that are not odd	It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary
Are these numbers odd or even?	322, 46, 52, and 98 are even numbers	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	Focus on having young people "compete" in pairs or
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.	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.



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					*Activity → Teachable Moment(s) <i>throughout</i>	
show the tota	show the total number of students in the classroom.				During the lesson check in with students repeatedly.	
Pizza						Check in about what is
Hamburger	6					happening and what they are thinking
Hot Dogs						Take advantage of any
	2	4	6	8	10	teachable moments
8 + 4 + 7 = 19					Stop the class and focus on a	
Fact Practice				student's key learning or		
Bump It Up! Add A Zero				ended questions to		
2 Give	2 Give each pair a white board and a deck of cards (without face cards jokers or 10s)					
3. The	3. The object of this fact practice is to sum numbers until you reach 1.000.					
4. Stuc	4. Student draws 2 cards, adds the value of the cards together, multiplies by ten and students in a "teach to learn"					
write	writes the total on the sheet.					
5. It is	5. It is not the other person's turn to do the same student become the teacher					
6. Whe	6. When play returns to the first player, the process is repeated, although this time, the					
total	totals are added together.					
7. First	7. First person to 1,000 wins.					
8. Exai	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 50 to 110 for a total of 160.	a 2 which totals 5. Mi	ultiply by 10 and I now add	
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 ÷) 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			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
2 cookies.			
Ac Writing Num Writing number sentences is essential to solvi sentence for each problem, and then mark the Problem: Each hour a dolphin swims 5 miles. How mark (4 hours) $20 \div 5 = 4$ hours A 15 B 25	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		
Problem:Each mother seagull has 3 baby chicks. The there? (6 mother seagulls) $18 \div 3 = 6$ mother seagulls $F. 5$ $G. 21$ Problem:Lorna had 16 dolls.She gave an equal numbget? (4 dolls) $16 \div 4 = 4$ dolls $A. 3$ B. 4Problem:Paul makes a pile of 26 cards.If $f = 7 = 19$ cardsF. 5G. 21Problem:Problem:Paul makes a pile of 26 cards.Then he giveIf $f = 7 = 19$ cardsF. 5G. 21Problem:You have 15 spools of thread.How many gr $15 \div 3 = 5$ groupsA. 3B. 4	ere are 18 chicks in all. F H. 6 er of dolls to 4 friends. F C. 12 s 7 of them to his sister. H. 6 oups of 3 spools can you n C. 6	lo. 4 low many mother seagulls are J. 15 low many dolls did each friend D. 20 How many cards does he have J. 15 make? (5 groups) D. 5	



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!)
 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

Crayolas Socks Vocabulary Notebooks 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 subtraction problem written below. To do this problem correctly, will you need to	*Activity → Teachable Moment(s) <i>throughout</i>
regroup? Explain your answer.	During the lesson check in with students repeatedly.
326	Check in about what is happening and what they are
<u>-194</u>	thinking.
	Take advantage of any
Fact Practice	Ston the class and focus on a
Target	student's key learning or
1. Divide students into trios	understanding. Ask open-
2. Each trio needs a deck of cards without face cards and jokers	ended questions to
3. Place the cards face up in a TicTac Toe Grid	the group is thinking.
 Turn up a 10th card which will be to the side and becomes the target number (aces count as 1) 	When possible, engage
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	opportunity and have the
6 Each card may be used only one time in the equation	student become the teacher.
 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 wins. 						
Math V Word for Today: equation Description: An equation is a number sente equal on both side of the = sign. Ex.: 4 + 2 = Students should complete the Vocabulary No 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					
New Word equation						
Personal Connection	composition book.					
problem.	-231-407-718					
A Equat Explain to students that they are going to ha for addition and subtraction. Demonstrate how students will use cards to cards. (Decks will not have 10s, face cards, For example, if I draw a 7, 3, 2, 2, 1, 6, 8, 9, I could subtract saying 732 - 126 = 606; or 621 Player can only make 1 equation with each d At the end of the play, the answers from all 4 winner is the player with the highest total.	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					
 Divide students into pairs 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 When all have finished, compare the grand totals for each team 						



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!)
 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

- Ask them to comment 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) <i>throughout</i>
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	Take advantage of any
Fact Family	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 open- ended questions to determine what the rest of the group is thinking.
13 - 4 = 9	When possible, engage students in a "teach to learn"
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	opportunity and have the student become the teacher.
Math Vocabulary	It is important to review
Word for Today: number sentence	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.		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).
New Word	My Description	Vocabulary Notebooks can
		be made from ½ of a
Number sentence	A number sentence is how you write a problem	composition book.
Personal Connection	Drawing	
	Drawing	
The number sentence is 5 + 6 = 11.	4 + 5 = 9	
Activity		Focus on having young
Exa	actly 100	people "compete" in pairs or
Demonstrate:		is mastered you can utilize it
On the white board, draw 3 columns. Label	the first >100, the center one 100, and the last	in the "When Homework Is
one < 100 Show students 2.12 sided dice and 2.6 sided dice		Complete" center.
Explain that you will roll the 4 dice one time	Then ask students to help you create three	
number sentences. One that equals less that	an 100, one that equals more than 100, and if	
possible, one that equals 100 exactly. Exam	nple:	
Player rolls a 5, 5, 1, and 4		
$1 [5 (5 \times 4)]$		
$(5 \times 1) + (5 - 4) + 6$		
5(5X4) + 1 = 101 Playing the game		
1. Divide students into pairs		
 Give each pair two-12-sided dice and two 6-sided dice. Discore #1 rolls of four disc. 		
 Player #T rolls all four dice. 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.		
 Player scores one point for >, one point for <, and 3 points for exactly 100. 		
6. Hignest score 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?
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)
A let them to commont on what they did today that was like compating they had done before event in one

- Ask them to comment 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 Crayolas

Socks

Vocabulary Notebooks 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 *Activity \rightarrow Teachable Moment(s) throughout 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. During the lesson check in with students repeatedly. Check in about what is 13 + 9 =happening and what they are Fact Practice thinking. Draw! Take advantage of any teachable moments. 1. Divide students into pairs and give each pair a deck of cards Stop the class and focus on a 2. Remove the face cards and jokers from the deck of cards. student's key learning or 3. Shuffle the deck. understanding. Ask open-4. Decide who will go first. ended questions to 5. First player draws two cards. determine what the rest of 6. Student adds or subtracts the cards. the group is thinking. 7. Student writes his/her problem on the white board, writing a complete number When possible, engage students in a "teach to learn" sentence. opportunity and have the 8. Students take turns drawing cards and creating problems. 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.		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
New Word	My Description	acting out an equation). Vocabulary Notebooks can
Expanded notation	Stretching a number out so you can see its parts	be made from ½ of a composition book.
Personal Connection	Drawing	
The assignment was to write the numbers in expanded notation.	<u>400 + 20 + 8</u>	
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 ⓐ ⓐ @ ⓐ = 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: • • Dlawe 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!)

- 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

0	peni	ng

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,	*Activity → Teachable Moment(s) <i>throughout</i>
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)	During the lesson check in with students repeatedly.
6 3 1 8	Check in about what is
Fact Practice	happening and what they are
Spots and Dots	Take advantage of any
for each pair of students in your class. It is recommended that you duplicate on card stock	teachable moments.
and if possible, laminate for use again in the future.	Stop the class and focus on a student's key learning or
Players sit across from each other.	understanding. Ask open-
Dominoes are between them, face (or spots) down.	ended questions to
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	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 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.		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).
New Word	My Description	Vocabulary Notebooks can be made from ½ of a
Expanded notation	Writing numbers so you can see hundreds, tens, and ones separated	composition book.
Personal Connection	Drawing	
Can you write 649 in expanded notation?	<u>600 + 40 + 9</u>	
Activity Expand and Contract		Focus on having young people "compete" in pairs or small groups. Once a game
Demonstrate: Write the following number:	s on the board.	in the "When Homework Is
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		Complete" center.
 Divide students into pairs Give each pair a deck of cards with the 10s, face cards and jokers removed 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 Students should create 10 numbers Invite pairs of students to share the numbers they generated with a pair of peers 		



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!)
 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)
- Ack them to comment on what they did today that was like compating they had done before except in one

- Ask them to comment 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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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 (the "Meat")

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.



It is important to review academic math vocabulary

often throughout the day.

Complete the Vocabulary

students experience the word

right angle, multiple students acting out an equation).

(Ex. 4 students creating a

notebook for each word.

When possible, have

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:

		L Vocabulary Notebooks can				
New Word equation	My Description A number sentence that show how two things are equal in value	be made from ½ of a composition book.				
Personal Connection	Drawing					
Write the equation carefully to show the accurate comparison.	<u>6 + 9 = 15</u>					
	Focus on having young					
Demonstrate: Roll 6 dice. Write an equation time each). Example: Roll is 5, 6, 3, 5, 1, 1 1 = 21 or I could add the first five numbers a is to eliminate all of the numbers from $1 - 36$	small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.					
 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.						
 Player works with the numbers rolle roll of the dice will cause a penalty of 	a to get as many answers as possible. A second 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.



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!)
 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



*Activity → Teachable Moment(s) *throughout*

During the lesson check in

happening and what they are

Stop the class and focus on a

with students repeatedly. Check in about what is

Take advantage of any teachable moments.

student's key learning or understanding. Ask open-

determine what the rest of

students in a "teach to learn" opportunity and have the

student become the teacher.

ended questions to

the group is thinking.

When possible, engage

thinking.

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


Play can continue until one player has all cards or time has called			
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		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	
New Word area	My Description Measure of the space inside of boundaries	(Ex. 4 students creating a right angle, multiple students acting out an equation) Vocabulary Notebooks can be made from ½ of a composition book	
Personal Connection The area of the front room is 30 square feet.	Drawing		
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 ¼" 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		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 guestions:			
What was your key learning for the day?			
What opportunities might you have to do this same thing in the "real world"?			
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 nershe could get all the blocks			
ale completed.			
Reflection (Confirm, Tweak, Aha!)			
 Ask students to think about what they did today in math. 			
• Ask them to comment on what they did today was something they already knew how to do. (Confirmation)			
• Ask them to comment on what they did today that was like something they had done before except in one			
particular way which was new to them. (Tweak)			

• Ask them to comment on something (if anything) they have learned today that was brand new to them.



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

White boards Voc	cabulary Notebooks
Crayolas Par	per clips
Socks 1/4 "	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



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

*Activity → Teachable Moment(s) *throughout*

During the lesson check in



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:		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
New Word My Description perimeter The distance around a shape or a place		right angle, multiple students acting out an equation) Vocabulary Notebooks can be made from ½ of a
Personal Connection The perimeter of the square is 14 feet.	Drawing $3 \downarrow \overbrace{-7}^{7} \downarrow 3$ $7 \downarrow \bigcirc 3$	composition book
Activity 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 ¼" 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?			
Reflection (Confirm, Tweak, Aha!)			
 Ask students to think about what they did today in math. 			
 Ask them to comment on what they did today was something they already knew how to do. (Confirmation) 			
 Ask them to comment on what they did today that was like something they had done before except in one 			
particular way which was new to them. (Tweak)			

• Ask them to comment on something (if anything) they have learned today that was brand new to them.



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

'ocabulary Notebooks
ice
" graph paper
i(

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)
- 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

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 Vo Word for Today: perimeter Description: A perimeter is the distance aro what a perimeter is, you can put a mark wher counting the measuring unit. Students complete the Vocabulary Notebook	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	
New Word	My Description	right angle, multiple students
The distance around an object	Walking the perimeter or edge of the playground	acting out an equation) Vocabulary Notebooks can be made from ½ of a composition book.
Personal Connection	Drawing	
Do you know how to calculate the perimeter of the playground?	$3 \downarrow \boxed{7} \downarrow 3$	
Ac	Focus on having young	
Demonstrate: On a piece of 1" square chart 2 dice. If you roll a 5 and a 4, you will want to squares long (they should be across from eac one corner and then count the number of squ determine that they could know this number b	small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.	
	5	
18	6	
17	7	
16	8	
15	9	
14 13 12 11	10	
Ask students if they notice that the corner squedges. Inside the object, students should write the di		



2.	Give each pair 1 sheet of ¼" 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? 		
<u> </u>		
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	*Activity → Teachable Moment(s) <i>throughout</i>		
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?	During the lesson check in with students repeatedly.		
259	Check in about what is happening and what they are		
Fact Practice	thinking.		
Foreheader	Take advantage of any		
1. Divide students into trios. Give each trio a deck of cards without face cards and	teachable moments.		
jokers.	Stop the class and focus on a		
Shuffle the deck and give all of the cards to the referee who will be "judging" the contest	understanding. Ask open-		
 On go, players are each handed a card by the referee and WITHOUT looking, put the card face out on his/her forehead 	determine what the rest of		
4. The referee adds the two numbers together and states the answer	When nessible engage		
 Each player looks at the other person's exposed number and names his/her own 	students in a "teach to learn"		
number	opportunity and have the		
6. Person who wins (accuracy and time), collects both cards	student become the teacher.		
7. Play continues until all cards are gone.			



 Players can repeat play (if there is a opportunity to be both a player and r 	nother time) with each other so each has an referee	
Math V Word for Today: Review of the word area Description: In a figure defined by boundarie considered the area. Can be measured in se other means Have students share the Vocabulary Notebo additions or changes.	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	
New Word area	My Description A way to measure the space inside of something	acting out an equation) Vocabulary Notebooks can be made from ½ of a composition book
Personal Connection Can you find the area of the playground?	Drawing 1 2 3 4 5 6 7 8 9 1 3 4 5 6 7 8	
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 = ¼ " 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.?		
Reflection (Confirm, Tweak, Aha!)		
 Ask students to think about what they did today in math. 		
Ask them to comment on what they did today was something they already knew how to do. (Confirmation)		

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



Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	Tic Tac Toe 2 3
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

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. 4,789 4,897 4,897 4,876	Complete this problem: 257 <u>+394</u>	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.	What is the perimeter of the figure below? Write your answer on the line.	
9,000 + 400 + 30 + 7		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.	*Activity → Teachable Moment(s) <i>throughout</i>	
Fact Practice	During the lesson check in with students repeatedly.	
 Number Hunt Divide students into pairs. Each pair needs a Number Hunt sheet (attached to this lesson plans). Player rolls two 12-sided dice 	Check in about what is happening and what they are thinking. Take advantage of any	
 Player adds or subtracts the two numbers. If the number is not yet covered, then player may cover the number. 	teachable moments. Stop the class and focus on a student's key learning or	
 Next player repeats steps 1-3. Winner is determined by who has the most numbers covered. 	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.	
Math Vocabulary	It is important to review	
Word for Today: obtuse angle Description: Review the information that you shared with students vesterday about the	academic math vocabulary often throughout the day	
different types of angles. Remind them that an obtuse angle is between a right angle (L) and a straight line ().	Complete the Vocabulary notebook for each word.	



Students should review the entry on the word entry on the word entry to make and additions or changes.	When possible, have students experience the word. (Ex. 4 students	
Vocabulary Notebook Sample:		creating a right angle,
New Word	My Description	multiple students acting out an equation.)
Obtuse angle	Angle that is greater than a right angle but not a straight line	Vocabulary Notebooks can be made from ½ of a composition book.
Personal Connection	Drawing	
My neighbor's yard is at an obtuse angle to my front yard.	> 90° < 180° Obtuse Angle	
Act	ivity	Focus on having young
Coun	t Down	people "compete" in pairs or
Demonstrate: Review the game from yesterd game. Once they have demonstrated that they with a partner. Materials: Deck of Count Down cards (number	small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.	
White board for each student		
Directions:	ter a contra de la c	
I. Each student writes the number 99 at	top of nis/her white board	
2. All Count Down cards are placed face		
 Player one draws the top card and sub remaining from previous subtractions) 		
4. Player two then repeats.		
5 Play continues until 0 is reached		

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:	Equal 10 and Foreheader	
Focus:	Equalities	

Materials:		
White boards	Decks of cards	Diamond Cards (from yesterday)
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 Read each clue then select the correct shape.	*Activity → Teachable Moment(s) <i>throughout</i>
I have 4 sides. Opposite sides are equal.	During the lesson check in with students repeatedly.
All 4 sides are equal. Which shape am I?	Check in about what is happening and what they are thinking.
	Take advantage of any teachable moments
 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 	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.
 On go, players are each handed a card by the referee and WITHOUT looking, put the card face out on his/her forehead. 	When possible, engage students in a "teach to learn"
 The referee adds the two numbers together and states the answer. Each player looks at the other person's exposed number and names his/her own number. 	student become the teacher.
 Person who wins (accuracy and time), collects both cards. 	
 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. 	



Math Vo	cabulary	It is important to review	
Word for today: acute angle	academic math vocabulary		
Description: Review the information that you acute angle. Have students identify more thin an 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 Noteboo	ks in pairs, discussing the word, making any	When possible, have	
additions or changes.		students experience the word (Fx 4 students	
Now Word	My Description	creating a right angle,	
		multiple students acting out	
Acute angle	An angle less than 90°	an equation) Vocabulary Notebooks can	
Personal Connection	Drawing 🕈	composition book	
The edges of the triangle create two acute angles			
Acti	ivity	Focus on having young	
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		people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center	
Materials: Deck of Diamond Cards for each g	group of 2-3 students		
Directions:	contor of the group		
 Furthall of the cards face down in the part of the pa			
3. First player turns over the first card ar			
 First player then looks at his/her own the center card by placing a number r equal 10. (Example: one side has an 			
 If player cannot make a match, then h second player. If there is a match, pla player does not have to draw a card. 			



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?
Poflection (Confirm Tweek Abol)
תכווכנווטוז (כטוווווזוז, דשכמג, אוום:)

- 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 and Hundreds Chart
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?





numbers in the ladder, writing the sun		
Math Vo Word for Today: symmetry Description: Discuss the information from ye ways that you drew lines of symmetry in the p information they included in the Notebook from necessary. 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	
New Word symmetry	My Description Same on two sides	right angle, multiple students acting out an equation). Vocabulary Notebooks can be made from ½ of a
Personal Connection The line of symmetry goes down the middle, trying to make it the same on both sides.	Drawing	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		Focus on naving young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center
 4. 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 ¼" 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. 		



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:	Just Roll 'Em and Symmetry
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?

Content (the "Meat")	
 Problem of the Day Write your last name in all capital letters. Which letters have at least one line of symmetry? Explain your answer. You may want to do the Problem of the Day after the vocabulary lesson today. Fact Practice Spokes on a Wheel Divide students into pairs. On a white board, student draws a small circle with 9 spokes coming out of it. (should look like a bicycle tire) Have students choose to put a 6, 7 or 8 in the center circle. Student rolls two dice and adds the pips (dots). 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. 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 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.
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 \wedge	be in symmetry:	When possible, have students experience the
	word. (Ex. 4 students	
You can flip something (reflect)		multiple students acting out
$\triangleright \triangleleft$		an equation.) Vocabulary Notebooks can
The line of symmetry "slices" the two objects s	so that both sides are alike.	be made from 1/2 of a
Students complete the Vocabulary Notebook		composition book.
Vocabulary Notebook Sample:	My Description	
	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.		
Act	ivity	Focus on having young
JUST R	oll 'Em	small groups. Once a game
Demonstrate how to play the game using vol	unteers to come and learn how to play while	is mastered you can utilize it
they are teaching others.		in the "When Homework Is
Materials: two 9-sided dice of different colors	s for each team	Complete" center
Directions:		
1. Designate one of the dice ones place	and the other tens place (Green = ones, red	
= tens)		
 Player 1 rolls the dice and finds the number that he/she has rolled 	umber on the hundreds chart and marks the	
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 and jokers removed.		

		Closing	
		Review	
Say:			
٠	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:	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	*Activity → Teachable Moment(s) throughout
Label one column "circle" the second acute angle, the third obtuse angle	During the lesson check in with
Make a list of items (you can draw them) in your classroom that are shaped like a	students repeatedly.
circle, an acute angle and an obtuse angle.	Check in about what is happening
Fact Practice	and what they are thinking.
Draw! 1. Divide students into pairs and give each pair a deck of cards.	Take advantage of any teachable moments.
2. Remove the face cards and jokers from the deck of cards.	Stop the class and focus on a
3. Shuffle the deck.	student's key learning or
4. Decide who will go first.	understanding. Ask open-ended
5. First player draws two cards.	questions to determine what the rest
6. Student adds or subtracts the cards.	of the group is thinking.
7. Student writes his/her problem on the white board, writing a complete number	a "teach to learn" opportunity and
Semence. Students take turns drawing cards and creating problems	have the student become the
o. Students take turns drawing cards and creating problems.	teacher.
Math Vocabulary	It is important to review academic
Word for Today: isosceles triangle	math vocabulary often throughout
Description : An isosceles triangle is any triangle that has at least two sides that	the day
are the same length. All of these are isosceles triangles:	Complete the Vocabulary notebook for each word.
	When possible, have students
	creating a right angle, multiple



Have student complete his/her Vocabulary Notebook.			students acting out an equation)
New	Word	My Description	from ½ of a composition book
	Isosceles triangle	A triangle with two equal sides and angles	
Pers	onal Connection	Drawing	
l hav wall.	e an isosceles triangle on my		
Activity			Focus on having young people
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.			"compete" in pairs or small groups.
Demo below. Ask th Materi Direct 1. 2.	nstrate: Demonstrate how the gan Have volunteers come to the front em to each teach one person. ials: Deck of Math Fact Cards ions: Shuffle the cards and divide them ev Simultaneously, the two players turn	ne is played following the directions and demonstrate for the other students. enly between the players (2 is best). over the top card in his/her deck.	Once a game is mastered you can utilize it in the "When Homework Is Complete" center
Demo below. Ask th Materi Direct 1. 2. 3.	nstrate: Demonstrate how the gan Have volunteers come to the front em to each teach one person. ials: Deck of Math Fact Cards ions: Shuffle the cards and divide them ev Simultaneously, the two players turn Both players calculate the answer to	ne is played following the directions and demonstrate for the other students. enly between the players (2 is best). over the top card in his/her deck. the problem and calls out the answer	Once a game is mastered you can utilize it in the "When Homework Is Complete" center
Demo below. Ask th Materi Direct 1. 2. 3. 4. 5.	nstrate: Demonstrate how the gan Have volunteers come to the front em to each teach one person. ials: Deck of Math Fact Cards ions: Shuffle the cards and divide them ev Simultaneously, the two players turn Both players calculate the answer to Player with the larger number wins b If the answers are a tie, then another	ne is played following the directions and demonstrate for the other students. enly between the players (2 is best). over the top card in his/her deck. the problem and calls out the answer oth cards.	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 sai	me thing in the "real world"?
What advice would you give to a "new" student g	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>



Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	Equal 10 and Acute Angle
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.	*Activity → Teachable Moment(s) <i>throughout</i> During the lesson check in
Fact Practice Addition War	with students repeatedly. Check in about what is
 Divide students into pairs. Give each pair a deck of cards without face cards and jokers. 	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.	Take advantage of any teachable moments.
 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 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.
Math Vocabulary Word for Today: acute angle Description: An acute angle is one that is more than '0" but less than 90°. A 90° angle is	It is important to review academic math vocabulary often throughout the day



called a right angle. It looks like the letter L A would look more like this in a triangle:	Complete the Vocabulary notebook for each word. When possible, have		
Ask children to look around the room and loca volunteers to come up and form an acute angle close it up to an acute angle.	students experience the word (Ex. 4 students creating a right angle, multiple students		
Vocabulary Notebook Sample:		acting out an equation)	
New Word My Description		Vocabulary Notebooks can	
Acute angle	An angle that is less than 90°	composition book	
Personal Connection	Drawing		
The Triscut has several acute angles.			
Acti Equa Materials: Dock of Diamond Cards for each o	Focus on having young people "compete" in pairs or small groups. Once a game		
Directions	Joup of 2-3 students	is mastered you can utilize it	
1 Turn all of the cards face down in the	center of the aroun	in the "When Homework Is	
2 Fach person draws 5 cards from the r	bile and then the remaining cards are placed	Complete" center	
in a single stack, face down.			
3. First player turns over the first card ar	nd 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 r			
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, pla player does not have to draw a card.			
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








Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	Math Fact Match and Isosceles Triangle
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?	*Activity → Teachable Moment(s) <i>throughout</i> 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
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	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.



Math Vo	It is important to review	
Word for Today: isosceles triangle	academic math vocabulary often throughout the day.	
an isosceles triangle. Go for a walk outdoors a that come together on the basketball court, etc.	ormation that you gave them yesterday about nd find right angles (sidewalk corners, lines), obtuse or acute angles as well. Have groups	Complete the Vocabulary notebook for each word.
of children form the angle—say four students of the base of the triangle. In this way they are for	n each side, and then have a row of children rming a variety of isosceles triangles.	When possible, have students experience the
When you go back to the classroom have stude and decide if they want to add to it.	ents check the Vocabulary entry from yesterday	word. (Ex. 4 students creating a right angle,
Have students share the Vocabulary Notebooks additions or changes.	s in pairs, discussing the word, making any	multiple students acting out an equation.)
Vocabulary Notebook Sample:		Vocabulary Notebooks can
New Word	My Description	be made from ½ of a composition book.
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		
Acti	ivity	Focus on having young
Math Fact Match		people "compete" in pairs or
Review: Review how to play the game children learned yesterday. Math Fact Match Materials: Deck of Math Fact Cards Directions:		small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.
 Shuffle the cards and divide them evenly between the players (2 is best). Simultaneously, the two players turn over the top card in his/her deck. Both players calculate the answer to the problem and calls out the answer. Player with the larger number wins both cards. If the answers are a tie, then another round is played. 		



- 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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Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	Obtuse Angle and 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	Problem of the Day many different shapes as you can to draw a robot (Use at least 4 different shapes)	*Activity → Teachable Moment(s) <i>throughout</i>	
Target	Fact Practice	During the lesson check in with students repeatedly.	
1. 2. 3	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.	
3. 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.	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-	
6. 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.	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	
9.	Player with the most cards at the end of the game win.	student become the teacher.	
	Math Vocabulary It is important to review		
Word for today: obtuse angle		academic math vocabulary	
Descrip L. An c	Description : Like the acute angle an obtuse angle has a relationship with a right angle, or the Complete the Vocabulary L. An obtuse 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) the to come up and form right angles, acute angles look for obtuse angles in the classroom. Students should complete the Vocabulary Note Vocabulary Notebook Sample:	notebook for each word. When possible, have students experience the word. (Ex. 4 students creating a right angle, multiple students acting out	
New Word Obtuse angle	My Description An angle bigger than a right angle and small than a straight line	an equation.) Vocabulary Notebooks can be made from ½ of a composition book.
Personal Connection	Drawing	
Can you find an obtuse angle in your yard?	> 90° < 180° Obtuse Angle	
- ·		
Act	ivity	Focus on having young
Act Count Explain to students that they are going to have Demonstrate how to play the game choosing v Count Down	ivity t Down e an opportunity to play a new game. volunteers to come and demonstrate.	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!)	

- 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



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

Materials:	
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 DayWrite the capital letters that have at least 1 right angle in them.Fact PracticeFact FamilyA 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 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 tho teachor.
Math Vocabulary 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 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 additions or changes.	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,



Vocab	ulary Notebook Sample:		multiple students acting out an
New	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.
Perso	onal Connection	Drawing	
The w the fo	vall of the house is at a right angle to undation		
	Act	ivity	Focus on having young people
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)			"compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.
A	ces count as 1 and all face cards are 10	Do it hy having all of the cards he open	
and fac	re up	ie. Do it by having all of the cards be open	
Directi	ons:		
1.	Each player is dealt 3 cards.		
2.	2. The first player plays a card and states the value of the card.		
3.	3. First player draws a card, keeping his/her hand at 3 cards.		
4.	 I he 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 OTHE Remember, after the pile reaches 99,	R PLAYER being able to play a card, wins. 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?		



Reflection (Confirm, Tweak, Aha!)

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



Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	99 and Right Angle
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?
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")		
lfa ⊚⇒	Problem of the Day = 5 and a ♥ = 3, what would be the total of the problem below:	*Activity → Teachable Moment(s) <i>throughout</i>	
	ⓒ + ⓒ + ♥ + ♥ + ⓒ +	During the lesson check in with students repeatedly.	
1	Fact Practice Bump It Up! Add A Zero	Check in about what is happening and what they are thinking.	
1. 2. 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. 4.	Student draws 2 cards, adds the value of the cards together, multiplies by ten and writes the total on the sheet.	Stop the class and focus on a student's key learning or understanding Ask open-	
5. 6.	It is not the other person's turn to do the same. When play returns to the first player, the process is repeated, although this time, the totals are added together.	ended questions to determine what the rest of the group is thinking.	
7. 8.	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.	When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.	
	Math VocabularyIt is important to review		
Word f	or Today: right angle	academic math vocabulary often throughout the day	
Descrij room a	otion: Review the information that you shared with students yesterday. Look around the nd see if they can find other right angles (not the ones they found yesterday). Ask students	Complete the Vocabulary	



to identify the different shape that have at least of	notebook for each word.		
Review the entry from yesterday. Have students make any changes in the Vocabulary Notebook	s discuss in pairs and determine if they want to entry.	When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an	
Now Word	My Decoription	equation).	
	wy Description	Vocabulary Notebooks can be	
Right angle	And angle that looks like a capital L with 90° in the L	made from $\frac{1}{2}$ of a composition book.	
Porsonal Connection	Drawing		
He turned the corner at a right angle	Drawing		
5 5			
Ac	tivity	Focus on having young people	
	90	"compete" in pairs or small	
Remind the students of the rules of 99	//	groups. Once a game is	
Fach card counts for its face value except		mastered you can utilize it in	
9's simply allow the player to pass, they are	e neither added to or subtracted from the total.	the "When Homework Is	
10's are $a - 10$, requiring the player to subt	ract 10 from the total.	Complete" center.	
the joker is "99" (you can play after the joke	er if you have a 9, a 10, or another joker).		
Aces count as 1 and all face cards are 10.	5		
Demonstrate: Show kids how to play this game	e. Do it by having all of the cards be open and		
face up.	<i>y y y y y y y y y y</i>		
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/h	er hand at 3 cards.		
4. The second player plays a card and sta	tes 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/sh	e 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. I he player to reach 99 with NO OTHER	PLAYER being able to play a card, wins.		
Remember, alter the pile reaches 99, pi	ayers carr suir piay a 9, 10 01 juker.		

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!)

- 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 3 3
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?		

Reflection (Confirm, Tweak, Aha!)

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



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	Complete this problem: 1,423 <u>+2,678</u>	Jordan weighs 123 pounds. His older brother weighs 53 pounds more. How much does his older brother weigh?
Complete this problem 1,023 <u>-968</u>	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?

Content (the "Meat")		
Problem of the Day Below are three problems that equal 15.	*Activity → Teachable Moment(s) <i>throughout</i>	
3 x 5 = 15	During the lesson check in with students repeatedly.	
8 + 7 = 15 10 + 5 = 15	Check in about what is happening and what they are thinking	
Write two more problems that will have 15 as the answer.	Take advantage of any	
Fact Practice	teachable moments.	
 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. 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- ended questions to determine what the rest of the group is thinking.	
 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. 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 4. 	When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.	



 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 ÷ 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		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.
Personal Connection	Drawing	
14 equals 10 + 4		
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		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:		
 Markers cover the Product Grid. Player 1 draws two cards and finds the product. He/she then removes the marker that covers that product. 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. 		



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?		
<u> </u>		
Reflection (Confirm, Tweak, Aha!)		
 Ask students to think about what they did today in math. 		
Ask them to comment on what they did today was something they already knew how to do. (Confirmation)		

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



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 and Multiplication
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	*Activity → Teachable Moment(s) <i>throughout</i>
Look at the numbers below. There is a pattern in this list of numbers. Figure out the pattern and write the next three numbers.	During the lesson check in with students repeatedly.
10, 11, 13, 16, 20,,,	Check in about what is happening and what they are thinking.
Fact Practice	Take advantage of any teachable moments.
 Number Hunt 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. 	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.



Math Vo Word for Today: pattern Description: Pattern is a word that describes itself over and over. For example, ♥♥ ☆ ♥ pattern is heart, heart, sun, sun, heart, heart, s AABBAABB. If we can recognize the pattern woul 3, 6, 9, 12, understanding the pattern woul Create an entry in the Vocabulary Notebook for Vocabulary Notebook Sample: New Word	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	
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.	⋽⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳⋳	
Act	ivity an Droduct	Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it
what's yo	ur Product	
Students played this game yesterday. Review	the rules before you have the students play.	
Materials:		Complete" center.
Deck of cards, remove all cards except Ace 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 produc		
3. He/she then removes the marker that covers		
4. Player 2 repeats the process.		
5. If a player has a product that has already bee		
6. Player with the most markers at the end of the	e game, 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?
Reflection (Confirm, Tweak, Aha!)
Ask students to think about what they did today in math.

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



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:	Draw and 99
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 Word for Today: expanded notation Description: Expanded notation is a way of went into that number in each of the places number with numeral in the hundreds, tens, 300, in the tens place there is 40, and in the numbers together—300 + 40 + 5 you get th Have student complete his/her Vocabulary	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 Notebook Sample:		Vocabulary Notebooks can
New Word	My Description	be made from ½ of a
Expanded notation	478 = 400 + 70 + 8	composition book.
Personal Connection	Drawing	
Place the number 5, 928 into expanded notation: 5,000 + 900 +20 +8	<u>600 + 50 + 1</u>	
Ni Materials: Deck of Cards (all cards in Players: 2-4 Purpose of the game: Practice mental ma Total value of pile can never exceed "99"	people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.	
 Directions: Each card counts for its face value except: 9's simply allow the player to pass, the 10's are a – 10, requiring the player to the joker is "99" (you can play after the Aces count as 1 and all face cards are 		
1. Each player is dealt 3 cards.		
2. The first player plays a card and states		
3. First player draws a card, keeping his/		
 The second player plays a card and st (unless the second player plays a 9, a keeping his/her hand at 3 cards. 		
5. For example, if player 1 plays a 7, he/s player plays an 8, he/she would say 15 he/she would say 5, and so on. Draws		



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 c	to 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!)

- 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:	Place Value and 99
Focus:	Addition and Subtraction

Materials:	
White boards	Vocabulary Notebooks
Crayolas	Double 9 Dominoes
Socks	Deck of playing cards for each team

|--|

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.	*Activity → Teachable Moment(s) <i>throughout</i>
26917	During the lesson check in with students repeatedly.
Fact Practice Spots and Dots There is a master of Double 9 Dominos attached to this lesson plan. You will need 1 full set	Check in about what is happening and what they are thinking.
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.	Take advantage of any teachable moments.
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	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
Addition: 2 + 3 = 5	student become the teacher.



Math V Word for Today: place value Description: In our number system there are These numerals can be arranged and rearran "place" the numeral occupies lets you know th 3,425,678, the places represented are millions hundred, tens, ones. The 3 represents 3,000, the number 39. Place value lets us know how Create an entry for place value in your Vocabu	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).	
New Word	My Description	be made from ½ of a
Place value	The value of a numeral in a particular spot in a number	composition book.
Personal Connection	Drawing	
In the number 487, 4 is in the hundred's place.		
Ac Nine	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 how to play this game that students le Materials: Deck of Cards (all cards inclu Players: 2-4		
Purpose of the game: Practice mental math 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 a 10's are a – 10, requiring the player to su the joker is "99" (you can play after the jown of the player to su 		
	oker if you have a 9, a 10, or another joker).).	
 Aces count as 1 and annace cards are 10 Each player is dealt 3 cards. 	oker if you have a 9, a 10, or another joker).).	
 Aces count as 1 and an face cards are for Each player is dealt 3 cards. The first player plays a card and states the 	oker if you have a 9, a 10, or another joker).). ne value of the card.	
 Aces count as 1 and an face cards are for Each player is dealt 3 cards. The first player plays a card and states th First player draws a card, keeping his/heil 	oker if you have a 9, a 10, or another joker).). he value of the card. r hand at 3 cards.	



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?

Reflection (Confirm, Tweak, Aha!)

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



Double 9 Dominoes

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• •	•	









Do not use			
Do not use	$\begin{array}{c}\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\$		








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

Materials: White boards

Crayolas Socks Decks of cards 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

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		It is important to review
Word for Today: digit		academic math vocabulary
Description : In math the word digit refers to system we use to number there are 10 nume way that you organize or place these 10 num you are talking about. 589 is a three digit nu	often throughout the day. Complete the Vocabulary notebook for each word. When possible, have	
five digit number. What would be an examp	le of a 6 digit number?	students experience the word
Create an entry in your Vocabulary Noteboo	(Ex. 4 students creating a right angle, multiple students acting out an equation)	
Vocabulary Notebook Sample:		Vocabulary Notebooks can
New Word	My Description	be made from ½ of a
digit	Symbol that represents a number	composition book.
Personal Connection	Drawing	
This number has 5 digits in it: 67,834.	67,834	
Activity		Focus on having young
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)		small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.
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		
1 Students work in pairs		
2. Students prepare the game board (see atta		
3. Shuffle cards and deal 8 cards to each pla		
 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		
	ishter humber and the target humber. Students add	



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!)	
 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?





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

Materials:

White boards Crayolas Socks

Decks of cards 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 If you are working a subtraction problem, how does knowing your addition facts help you to solve that problem? Explain	*Activity → Teachable Moment(s) <i>throughout</i>
	with students repeatedly.
 Fact Practice Fore-header 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 referee who will be "judging" the contest. On go, players are each handed a card by the referee and WITHOUT looking, put the card face out on his/her forehead. The referee adds the two numbers together and states the answer. Each player looks at the other person's exposed number and names his/her own number. Person who wins (accuracy and time), collects both cards. 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 	 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.



	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.		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).
New Word Math fact	My Description The foundation of addition, subtraction, multiplication and division	Vocabulary Notebooks can be made from ½ of a composition book.
Personal Connection I have memorized my addition math facts.	Drawing	
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)		Focus on having young
 Play the game, How Close Can You Get a to be sure they understand how to play. Materials: Deck of cards—remove face cards and a White board or paper for game board Purpose of Game: Create a number that on the game board (5, 25, 50, 100) 	again today. Review the game with the students 10s, use jokers as a zero t is as close to the number at the end of the row	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?		
<u> </u>		
Reflection (Confirm, Tweak, Aha!)		
 Ask students to think about what they did today in math. 		
Ask them to comment on what they did today was something they already knew how to do. (Confirmation)		

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



Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	Countdown to Blast Off
Focus:	Subtraction

Vocabulary Notebooks
dice (6-sided and 12-sided for each pair)
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) <i>throughout</i>	
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 example, the number 9, 4, and 13 have a particular relationship in math. This family has four	Take advantage of any teachable moments.	
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 open- ended 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 abo digit, 4 digit, 5 digit, 6 digit, and 7 digit numbers pair with another student and explain the value Have students share the Vocabulary Notebook additions or changes. Vocabulary Notebook Sample:	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).	
New Word Place value	My Description Whether the number is worth tens, hundred, or thousands depends on the place value a number is given	Vocabulary Notebooks can be made from ½ of a composition book.
Personal Connection	Drawing	
In the number 456, the 5 is in the tens place.	456	
Activity Countdown to Blast Off!		Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it
Materials:Deck of cards without jokers and face cards forWhite board or paper.	in the "When Homework Is Complete" center.	
Directions:		
1. Children play this game in pairs.		
 Each student gets a deck of cards (as describ cards face down. 		
3. Student writes the number 100 at the top of the		
 Student draws a card, writes the value of the subtracts the value of the card 		
 Student draws a second card and repeats. 		
6. This continues until the player is at or below z		
7. Both students are working as quickly and acc		
 winner is the player who reaches 0 or lower fig. 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?
Reflection (Confirm, Tweak, Aha!)
 Ask students to think about what they did today in math.
Ask them to comment on what they did today was something they already knew how to do. (Confirmation)

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



Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	Algebra Count Down to Blast Off
Focus:	Subtraction

Materials:

White boards Crayolas Socks Vocabulary Notebooks Deck of 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	*Activity → Teachable Moment(s) <i>throughout</i>
lf ♥ = 3	B and ⓒ = 6, what is the answer to the problem below? ♥ + ⓒ + ♥	During the lesson check in with students repeatedly.
1. 2. 3. 4. 5. 6. 7. 8.	Fact Practice Bump It Up! Add A Zero Divide students into pairs. Give each pair a white board and a deck of cards (without face cards, jokers, or 10s). The object of this fact practice is to sum numbers until you reach 1,000. Student draws 2 cards, adds the value of the cards together, multiplies by ten and writes the total on the sheet. It is not the other person's turn to do the same. When play returns to the first player, the process is repeated, although this time, the totals are added together. 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.	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.
	Math Vocabulary	It is important to review academic math vocabulary



Word for Descripti alphabet then you algebra p We know numbers.	Today: algebra on: Algebra is a name for a certain letters to represent an unknown num are better able to figure out what the roblem, $4 + n = 6$, we can figure out that when we count and we start at We might also know that 2, 4, and on any what number we are leaking for	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				
Create ar	entry for the word "algebra" in your	Vocabulary Notebook.	Vocabulary Notebooks can			
Vocabula	ry Notebook Sample:		be made from ½ of a composition book.			
New Wo	brd	My Description				
	algebra	A way of describing math in a broad, universal way				
Persona	al Connection	Drawing				
I am i	nterested in learning more about algebra.	4x = 8				
	Ac	tivity a to Plact Offl	Focus on having young			
Review h	countdown ow to play this game from yesterday	small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.				
Decl	c of cards without jokers and face ca	 Deck of cards without jokers and face cards for each student. 				
Whit	e board or 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. ?
Reflection (Confirm, Tweak, Aha!)
 Ask students to think about what they did today in math.
 Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
 Ask them to commont on what they did today that was like compthing they had done before except in one

- Ask them to comment 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 basic operations that you need to utilize during math?

	Content (the "Meat")	
	Problem of the Day	*Activity → Teachable Moment(s) <i>throughout</i>
Write th	ne numbers below in order from the largest to the smallest.	During the lesson check in with students repeatedly.
	439 612 139 452	Check in about what is
Snoko	Fact Practice	happening and what they are thinking.
эроке. 1	Divide students into pairs	Take advantage of any
2.	On a white board, student draws a small circle with 9 spokes coming out of it (should look	teachable moments.
	like a bicycle tire).	Stop the class and focus on a
3.	Have students choose to put a 6, 7 or 8 in the center circle.	student's key learning or
4.	Student rolls two dice and adds the pips (dots).	understanding. Ask open-
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 $7 + 8 = 15$.	ended questions to determine what the rest of
6.	Process continues until all spokes have an equation.	the group is thinking.
		When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.



Math V	It is important to review				
Word for today: < and >	academic math vocabulary				
Description: These symbols, < and >, repr The pointed end of the symbol is directed at comparing. For example, 4 < 9, and 9 > 3. than nine, and in the second example you w	often throughout the day. Complete the Vocabulary notebook for each word. When possible, have students experience the word				
Students complete the vocabulary Noteboo	K	(Ex. 4 students creating a			
Vocabulary Notebook Sample:		right angle, multiple students			
New Word	My Description	acting out an equation).			
< and >	be made from $\frac{1}{2}$ of a composition book.				
Personal Connection	Drawing				
These symbols area for greater than, > and less than, <.	<a>and				
Activity Focus on having young					
Multiply and	people "compete" in pairs or small groups. Once a game				
Materials		is mastered you can utilize it			
Deck of card (remove face cards use joker	s for the zero (0)	in the "When Homework Is			
Directions:	complete center.				
1. Pair students.					
2. Shuffle the deck.					
3. Player 1 draws 2 cards, multiplies and stat					
4. Player 2 does the same.					
5. Player with largest product subtracts the p	roduct of the opponent and that is his/her points.				
6. Play continues until player has reached the					



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?
<u> </u>
Reflection (Confirm, Tweak, Aha!)
 Ask students to think about what they did today in math.
Ask them to comment on what they did today was something they already knew how to do. (Confirmation)

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



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:	Logic and 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.



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.

*Activity → Teachable Moment(s) *throughout*

During the lesson check in



 Have student roll 2 dice, total the pip numbers in the ladder, writing the sum to 	s and then add that number to each of the o 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:		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
New Word	My Description	right angle, multiple students acting out an equation).
logic	Makes sense, likely to occur	Vocabulary Notebooks can be made from ½ of a
Personal Connection	Drawing	composition book.
He put the information together in a logical manner.	logic	
Ac	tivity	Focus on having young
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)		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. 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 pro	oduct 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?
Reflection (Confirm, Tweak, Aha!)
 Ask students to think about what they did today in math.
• Ask them to comment on what they did today was something they already knew how to do. (Confirmation)

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



Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	Review With Tic Tac Toe 3
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?		

Reflection (Confirm, Tweak, Aha!)

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



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	Complete this problem: 5,687 <u>+9,387</u>	Julie has 513 recipe cards. Her friend Mavis has 387. How many recipe card do they have all together?
Complete this problem 4,571 <u>-879</u>	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 Vocabulary
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	*Activity → Teachable Moment(s) <i>throughout</i>
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	During the lesson check in with students repeatedly.
the boys sell altogether? Explain your answer.	Check in about what is
Fact Practice Eact Family	happening and what they are thinking.
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	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.
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 VocabularyWord for Today: dividendDescription: The term "dividend" refers to the number that represents the total that is beingdivided. For example, a dividend \div divisor = quotient. $12 \div 3 = 4$. In this case the dividend is12. (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 WordMy Description		It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation). Vocabulary Notebooks can be made from ½ of a composition book.
dividend Personal Connection How many potatoes do you have to divide among the 14 people?	Drawing	
Activity Double DrawMaterials: 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.		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: • • Debase 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!)

- 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 Dividend
Focus:	Division

Materials:

White boards Crayolas Socks Vocabulary Notebooks Deck of cards

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	*Activity → Teachable Moment(s) <i>throughout</i>
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.	During the lesson check in with students repeatedly.
Who will win the game if the chart below shows the numbers rolled:Melanie1220284660	Check in about what is happening and what they are thinking.
Maddie 16 24 36 48 60	Take advantage of any teachable moments.
Fact Practice Bump It Up! Add A Zero 1. Divide students into pairs.	Stop the class and focus on a student's key learning or understanding. Ask open-
 Give each pair a white board and a deck of cards (without face cards, jokers, or 10s). The object of this fact practice is to sum numbers until you reach 1,000. Student draws 2 cards, adds the value of the cards together, multiplies by ten and 	ended questions to determine what the rest of the group is thinking.
4. Student draws 2 cards, adds the value of the cards together, inditiplies by terrand writes the total on the sheet.5. It is not the other person's turn to do the same.	When possible, engage students in a "teach to learn" opportunity and have the



6. When play returns to the first player, the	ne process is repeated, although this time, the	student become the teacher.
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 Ve	ocabulary	It is important to review
Word for Today: dividend		academic math vocabulary often throughout the day.
Description: The term "dividend" refers to the divided. For example, a dividend ÷ divisor = q	e number that represents the total that is being uotient. $12 \div 3 = 4$. In this case the dividend is	Complete the Vocabulary notebook for each word.
12. (The 3 is the divisor and the quotient is 4)		When possible, have
Have students look at the problems below and	identify the dividend in each:	students experience the word
18 ÷ 3 = 6		(Ex. 4 students creating a
$10 \div 2 = 5$		right angle, multiple students
$48 \div 6 = 8$		acting out an equation).
$36 \div 9 = 4$		Vocabulary Notebooks can
		be made from $\frac{1}{2}$ of a
Review the entry for the word "dividend" in the	Vocabulary Notebook with a peer. Make any	composition book.
changes necessary.		•
Vocabulary Notebook Sample:		
New Word	My Description	
dividend	The total amount you are dividing up	
uividend	The total amount you are dividing up	
Personal Connection	Drawing	
	Drawing	
We have a total of 35 cookies to divide between 8 people.		
	L	Facus on bouiles and
	livity la Draw	Focus on naving young
Doub	ie Draw	small groups. Once a game
Materials: 2 decks of cards, remove face cars	s and jokers. Decks must have different color	is mastered you can utilize it
backs.		in the "When Homework Is Complete" center
Directions:		
1. Review the game that students played vesterday.		
2. Have students share how to play the game.		
3. Have students play the game with new pa		
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!)

- 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:	Factors and Target
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?

Content (the "Meat")	
Problem of the Day	*Activity → Teachable Moment(s) <i>throughout</i>
Write one multiplication and one division fact to illustrate the picture below:	During the lesson check in with students repeatedly.
X X	Check in about what is happening and what they are thinking.
Fact Practice	 Take advantage of any teachable moments
 Target 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. 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- ended questions to determine what the rest of the group is thinking
 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. 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 i the target card is 10, then I could say 6 + 4 = 10, and pick up the 6 and the 4. 	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		
remaining deck.		
9. Player with the most calus at the end		
Math VocabularyWord for today: factor / productDescription: 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:	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 x 4 = 12	
	Activity	Focus on having young people
 Materials: Target Board, pair of dice for each team (can use 6 sided or 9 sided dice) Directions: Program leader places a number in each color of the target (should be a number that represents a "fact" that you are reinforcing). Player selects the color on the target that he/she is going for. Player rolls 1 or 2 dice. The total of the one or two dice becomes the multiplier. Player then multiplies the "target number" x's the multiplier. Writes the product on his/her tally paper. Play continues. When play returns to the first player, step 3 is repeated. The product is added to the original product. Winner is the first player to reach or go over 1,000. 		"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
Debilei
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!)

- 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) <i>throughout</i>
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 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. 	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
Math VocabularyWord for Today: factor / productDescription: 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 x 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:		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
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	
ŀ	Activity	Focus on having young
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.		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!)	

- 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!)


24 25 26 27 28

Number Hunt

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:	Divisor and Tic Tac 15
Focus:	Addition

Materials:

White boards Crayolas Socks Vocabulary Notebooks deck of cards, no face cards or jokers for math fact practice

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?

				Cor	ntent (the	e "Meat")	
				Pro	oblem of	the Day	*Activity \rightarrow Teachable
George answei	George says that the rule for the table below is to multiply by 6. Is he right? Explain your answer.					During the lesson check in with students repeatedly.	
In	4	5	6	7	8		Check in about what is
Out	24	30	36	42	48		happening and what they are
					Fact Pra	actice	thinking.
	Draw!						Take advantage of any teachable moments.
1.	Divide s	tudents i	nto pairs a	and give	each pair	r a deck of cards	Stop the class and focus on a
2.	Remove	the face	e cards an	nd jokers	from the	deck of cards.	student's key learning or
3.	Shuffle t	he deck.					understanding. Ask open-
4.	Decide v	who will g	go first.				ended questions to
5. First player draws two cards.						determine what the rest of	
6. Student adds or subtracts the cards.					the group is thinking.		
7. Student writes his/her problem on the white board, writing a complete number sentence.					board, writing a complete number sentence.	Engage students in a "teach	
8.	 Students take turns drawing cards and creating problems. 						to learn", have the student become the teacher.



Math Vo Word for Today: divisor Description: The term "divisor" refers to the nu \div divisor = quotient. $12 \div 3 = 4$. In this case the quotient is 4). Have students look at the problems below and $9 \div 3 = 3$ $16 \div 4 = 4$ $49 \div 7 = 7$ $32 \div 8 = 4$ Have student complete his/her Vocabulary Note 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.	
New Word	My Description	
divisor		
Personal Connection	Drawing	
In the problem 30 \div 6, the divisor is 6.		
Acti Tic T Materials: Deck of Cards (remove 10s. face ca or crayolas Directions: 1. Group students in pairs. 2. Remove one ace, 2, 3, 4, 5, 6, 7, 8, and 9 3. Place all other cards back in the box and s down. 4. Create a 3 x 3 grid on the white board or o 5. Player one draws a card and places it in al 6. Player two draws a card and places it in al 7. Players continue placing cards until the su diagonal row equals 15. The player who p If no players reach 15, a new game is beg 8. Players should have a 5 or 10 game tourn. 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? Reflection (Confirm, Tweak, Aha!)

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them. (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.	*Activity → Teachable Moment(s) <i>throughout</i>	
going to the movie. How much will it cos	During the lesson check in with students repeatedly.	
Fact Practice		Check in about what is happening and what they are
Spots and Dots	thinking.	
There is a master of Double 9 Dominos attached to this lesso for each pair of students in your class. It is recommended the	Take advantage of any teachable moments.	
Players sit across from each other.		Stop the class and focus on a
Dominoes are between them, face (or spots) down.		student's key learning or
Each student draws a domino and writes the addition probler numbers represented by the spots Example: Domino drawn	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



Addition: 2 + 3 = 5		student become the teacher.
Math VocDescription: The term "divisor" refers to the nu \div divisor = quotient. 12 \div 3 = 4. In this case the quotient is 4).Have students look at the problems below and it27 \div 3 = 916 \div 2 = 856 \div 7 = 835 \div 5 = 7Have student review his/her Vocabulary NotebooAny corrections that need to be made should be	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	
Vocabulary Notebook Sample: New Word	My Description	composition book.
divisor	the number you divide a total by, for example: 25 ÷ §	
Personal Connection If I want to divide 9 apples by 3, the divisor is 3.	Drawing	
Acti Tic Ta Materials: Deck of Cards (remove 10s. face ca or crayolas Directions: 1. Review the game that students played yes 2. Have students share how to play the game 3. Have students play the game with new par	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!)

- 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!)



Double 9 Dominoes

		••

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••		









Do not use			
Do not use	$\begin{array}{c}\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\$		











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	*Activity → Teachable Moment(s) <i>throughout</i>
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: $[a + (a + 22)]_{a} = 128$	During the lesson check in with students repeatedly.
Fact Practice	Check in about what is happening and what they are
 Divide students into pairs. On a white board, student draws a small circle with 9 spokes coming out of it (should look 	Take advantage of any teachable moments.
 like a bicycle tire). Have students choose to put a 6, 7 or 8 in the center circle. Student rolls two dice and adds the pips (dots). 	Stop the class and focus on a student's key learning or understanding Ask open-
 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. 	ended questions to determine what the rest of
 Process continues until all spokes have an equation. 	the group is thinking. When possible, engage students in a "teach to learn"



		opportunity and have the
	student become the teacher.	
Math	It is important to review	
Word for today: multiples		academic math vocabulary
Description: The term, multiples, refers to	o numbers in a list that are gotten when you	Complete the Vocabulary
would begin with 4 x 1, then followed with	4×2 , 4×3 , 4×4 , 4×5 and so on. The multiples	notebook for each word.
then would be 4, 8, 12, 16 20, and so on.	Multiples can be found by skip counting as well.	When possible, have
Students complete the Vocabulary Notebo	ok for the term "multiples".	students experience the word
Vocabulary Notebook Sample:	My Description	right angle, multiple students
	my Description	acting out an equation).
multiples	numbers that you get when you count by a certain number: 2, 4, 6, 8, 10	Vocabulary Notebooks can be made from ½ of a
		composition book.
Personal Connection	Drawing	
What are the multiples of 6?	<u>6, 12, 18, 24, 30</u>	
M	Focus on having young people "compete" in pairs or	
		small groups. Once a game
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.	is mastered you can utilize it in the "When Homework Is Complete" center	
 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		



Closing Review Say: • • Debase 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!)

- 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	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:	The Ladder and 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 *Activity \rightarrow Teachable Moment(s) throughout During the lesson check in 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 with students repeatedly. vour answer. Check in about what is happening and what they are Fact Practice thinking. Addition Ladder Take advantage of any 1. Give each student a white board (include marker or crayola) teachable moments. 2. Student should draw a ladder like the one below Stop the class and focus on a 8 7 6 5 3 9 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" 2 opportunity and have the



1		student become the teacher.
3. Have student roll 2 dice, total the numbers in the ladder, writing the		
Math Word for Today: multiples Description: The term, multiples, refers to multiply by the same number. For example would begin with 4 x 1, then followed with 4 then would be 4, 8, 12, 16 20, and so on. List several numbers on the board and hav 3 (3, 6, 9, 12, 15, 18, 21, 24, 27, 3 5 (5, 10, 15, 20, 25, 30, 35, 40, 45 6 (6, 12, 18, 24, 30, 36, 42, 48, 54 Review the entry for the term "multiples" in any edits necessary. Vocabulary Notebook Sample: New Word Personal Connection 5, 10, 15, 20, 25, and 30 are multiples of five.	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.	
N Materials: Multiples Game Board, dice for Directions: 1. Review the game that students pl 2. Have students share how to play 3. Have students play the game with	Activity lultiples reach pair of students, game tokens ayed yesterday. the game. n 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
Poviow
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!)

- 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 1
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.

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

Stop the class and focus on a

*Activity → Teachable Moment(s) *throughout* During the lesson check in

with students repeatedly. Check in about what is happening and what they are

Take advantage of any

student's key learning or

understanding. Ask open-

determine what the rest of

teachable moments.

ended guestions to

the group is thinking.

thinking.



Math VocabularyWord for Today: equationDescription: 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:		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
equation Personal Connection I can write an equation: 3 + 4 = 7	My Description a number sentence with two sides being equal Drawing 3 4 4 5 7	
Activity Which Sign Is It? #1 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.) 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?

Three Whats

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

Reflection (Confirm, Tweak, Aha!)

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



What Sign Is It? #1





Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	Which Sign Is It 2
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:	*Activity → Teachable Moment(s) <i>throughout</i>
63 - = 27	During the lesson check in with students repeatedly.
Fact Practice	Check in about what is happening and what they are thinking.
 Foreneader 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 referee who will be "judging" the contest. On go, players are each handed a card by the referee and WITHOUT looking, put the card face out on his/her forehead. The referee adds the two numbers together and states the answer. Each player looks at the other person's exposed number and names his/her own number Person who wins (accuracy and time), collects both cards. 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. 	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.
Math VocabularyWord for today: equationDescription: 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.		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 equation	My Description 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	
	Activity	Focus on having young
 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: Group students in pairs As a pair, students write a + of – sign in each box to complete the equations. Shuffle cards and deal 8 cards to each player 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 After completing play, Player 1 draws a card and play passes to the second player 		people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.
5. 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: • • Debase 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!)

- 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





Component:	Math
Grade Level:	3 rd Grade
Lesson Title:	DTTMW Review
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?

Reflection (Confirm, Tweak, Aha!)

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



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

Materials:

White boards and SocksVocabulary NotebooksCrayolasdice

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</and>	*Activity → Teachable Moment(s) throughout During the lesson check in with students repeatedly. Check in about what is bappening and what they are	
Addition Ladder	thinking.	
 Give each student a white board (include marker or crayola) Student should draw a ladder like the one below 	Take advantage of any teachable moments.	
$ \begin{array}{c} $	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.	
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 VocabularyWord for Today: dividendDescription: The term dividend is used to identify the number (the total) that is going to be divided in a division problem. For example: dividend \div divisor = quotient16 \div 4 = 4The 16 is the dividend. Create the entry for the term "dividend" in your Vocabulary. Vocabulary Notebook Sample:New WordMy Description a dividend is the total amount that you have to separate into groups		It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation). Vocabulary Notebooks can be made from ½ of a composition book.
	J.a.m.ig	
In the problem $16 \div 4 = 4$, 16 is the dividend.	16 ÷ 8 = 2	
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! <u>Directions:</u> Divide the students into pairs. 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. Shuffle the cards and deal them to each player until all of the cards are distributed. Each player turns a card over. 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 x 5 = 15 and 5 x 3 = 15 15 ÷ 3 = 5 and 15 ÷ 5 = 3 Player who turns white board over with the correct 4 problems first, takes the two cards. Students erase white board and play again. 		



Closing Review Say: • • 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 Ack students to thick shout what they did teday in meth

- 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:	Operation Practice
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?

Content (the "Meat")		
Problem of the Day	*Activity → Teachable Moment(s) <i>throughout</i>	
The bakery sold 4,361 cupcakes and 4,631 chocolate chip cookies. Did the bakery sell more cupcakes or cookies? How do you know?	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.	
 On a white board, student draws a small circle with 9 spokes coming out of it (should look like a bicycle tire). 	Take advantage of any teachable moments.	
 Have students choose to put a 6, 7 or 8 in the center circle. Student rolls two dice and adds the pips (dots). 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. 	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.	
6. Process continues until all spokes have an equation.	When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.	



Math Vocabularv		It is important to review
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		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).
$18 \div 6 = 3$		
divisor.		
Students complete the Vocabulary Notebook for the term "divisor". Vocabulary Notebook Sample:		
New Word	My Description	Vocabulary Notebooks can
divisor	number you divide into another number	composition book.
Personal Connection	Drawing	
In the problem 20 divided by 5 the divisor is 5.	20 ÷ 4 = 5	
Activity Multiplication and Division Time! This activity will give students an opportunity to practice multiplication facts.		Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it
 Multiplication and Division Time! <u>Directions:</u> Divide the students into pairs. 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. Shuffle the cards and deal them to each player until all of the cards are distributed. Each player turns a card over. 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 x 5 = 15 and 5 x 3 = 15 + 3 = 5 and 15 + 5 = 3 Player who turns white board over with the correct 4 problems first, takes the two cards. Students erase white board and play again. 		in the "When Homework Is Complete" center.



Closing Review Say: • • 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 Ack students to thick shout what they did teday in meth

- 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!)


opportunity and have the

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

Materials:

White boards Crayolas Socks Decks of cards Vocabulary Notebooks

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?	*Activity → Teachable Moment(s) throughout During the lesson check in with students repeatedly.
 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 	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.
opportunity to be both a player and referee.	When possible, engage students in a "teach to learn"



		student become the teacher.
Math Vo Word for today: inequality Description: An inequality says that two value that 7 is not equal to 9. There are a variety of ways to say that two nu means does not equal. Another is the pair for and <. Another symbol that is similar is ≥ whi means less than or equal. Being familiar with Create an entry for the word "inequality" in you 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	
New Word	My Description	composition book.
inequality	things that are not equal, like 9 and 3 aren't equal	
Personal Connection	Drawing	
There is an inequality between the two amounts.		
Act Magic Squares This activity was worked on yesterday. Ask si game that is helpful. Have students share stra pairing today.	ivity tudents what they learned about playing the ategies. Ask students to work in a different	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.
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.



- 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	ith			
Grade Level:	¹ Grade			
Lesson Title:	on Title: Magic Card Squares 2			
Focus:	Problem Solving			

Materials:

White boards Crayolas Socks Decks of cards Vocabulary Notebooks

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 VocabularyWord for Today: digitDescription: 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 WorddigitMy Description these are the digits: 0, 1, 2, 3, 4, 5, 6, 7, 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).
Personal Connection	Drawing	be made from $\frac{1}{2}$ of a composition book.
How many digits are in this numeral?	a four digit number:	
3,785	3, 589	
Average Amagic Card Squares A Magic Square is an arrangement of single horizontal, vertical and diagonal lines equal to 12, 15, 18, 21, or 24. If the Magic Square is to = 12, you will need 4, 5, 6, 7, and 8 If the Magic Square is to = 15, you will need If the Magic Square is to = 18 you will need If the Magic Square is to = 21, you will need If the Magic Square is to = 24, you will need (=12) Magic Squares Directions: 1. Divide students into pairs 2. Give each pair a deck of cards, a white 3. Pair makes a 3 x 3 Magic Square on hit 4. Pair then selects whether they will creat 24. Pair then selects the playing cards	e digits in such a way that the sums of each the same number. Magic squares can add up the following cards: joker (= 0), Ace (= 1), 2, 3, Ace (= 1), 2, 3, 4, 5, 6, 7, 8, and 9 a 2, 3, 4, 5, 6, 7, 8, 9, and 10 a 3, 4, 5, 6, 7, 8, 9, 10, and Jack (=11) a 4, 5, 6, 7, 8, 9, 10, Jack (=11), and a Queen • board and pen/crayon. s/her white 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.



5. Pair Following students. and disco Rules for Divide the in the cert Add 1 to the cente Add 2 to from the Add 3 to center sq Add 4 to center nu	then v are the After over the r Crea e sum the ce er and the ce center the ce juare a the ce juare a the ce	works to ne guid studen e rules tting a of the l nter sq write th nter sq and writ nter sq and writ	ogether elines fo its have Magic S Magic S uare and e differe uare and e and wr uare and te the di uare and ite the d	to create the Magic Square. or creating a Magic Square. These are for you NOT the creating several Magic Square, have them begin to look for Square: quare by 3 to find the center number (15 ÷ 3 = 5) 5 is placed d the write the sum in the top right corner. Subtract 1 from ence in the bottom left corner. d write the sum to the right of the center square. Subtract 2 ite the difference to the left of the center square. d write the sum in the top left corner. Subtract 3 from the fference in the bottom right corner. d write the sum directly under the center. Subtract 4 from the ifference 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 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:	rd Grade			
Lesson Title:	Factors Which Way			
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 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

Content (the "Meat")	
Problem of the Day	*Activity → Teachable Moment(s) <i>throughout</i>
If the problem is 768 + 427, and your task was to estimate an answer, how would you do that? Please explain.	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.
 Place the cards face up in a TicTac Toe Grid. 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-
 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. 	ended questions to determine what the rest of the group is thinking.
 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 	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 		student become the teacher.
9. Player with the most cards at the en-	d of the game win.	
Math	Vocabulary	It is important to review
Word for today: factorsDescription: 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 x 4 = 12, the factors are 4 and 4, the product is 12. There are other factors of 12. For example: 1 x 12 = 12 (so 1 and 12 are factors) 2 x 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 WordMy Description The numbers you multiply together in a multiplication problem		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.
Personal Connection If I have 4 groups of 5 and I multiply to find out how many I have altogether, the	Drawing $2 \times 3 = 6$ Factor	
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? <u>Directions:</u> Divide students into pairs. Give each pair a deck of cards, a white board, and pen/crayons. Students prepare the deck by removing tens, face cards, and jokers. Pair shuffles the cards and deals three cards to each player and stacks the remaining cards face-down in a pile. Each player uses the three cards to create one 2 digit number and one single digit number. Player then multiplies the numbers together. Player with the greatest product gets one point. When cards are used they are placed in a discard pile 		



9. First player who gets 8 points, wins.

Closing

Review

Debrief

Say:

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

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:	Grade			
Lesson Title:	Which Way 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 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) <i>throughout</i>
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 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. 	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.



Math	/ocabulary	It is important to review
Word for Today: product	academic math vocabulary	
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.		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
Vocabulary Notebook Sample:	My Description	composition book.
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)	
A Which Way? This activity was worked on yesterday. Ask game that is helpful. Have students share st pairing today.	ctivity students what they learned about playing the rategies. Ask students to work in a different	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? Place value is an important concept for stude have ten numerals: 0, 1, 2, 3, 4, 5, 6, 7, 8, a determines the value of the number. In this a possible product by rearranging the numerals	ents in the third grade to understand. We only nd 9. It is the arrangement of these numerals that activity, students will work to create the largest s.	
 Which Way? <u>Directions:</u> Divide students into pairs. Give each pair a deck of cards, a white Students prepare the deck by removing Pair shuffles the cards and deals three of cards face down in a pile. Each player uses the three cards to creat number. Player then multiplies the numbers toge Player with the greatest product gets on 	board, and pen/crayons. tens, face cards, and jokers. cards to each player and stacks the remaining ate one 2 digit number and one single digit ther. e 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.





24 25 26 27 28

Number Hunt

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 Crayolas Socks Vocabulary Notebooks Double 9 Dominoes

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	*Activity → Teachable Moment(s) <i>throughout</i>
nickels, and 9 pennies. How much money do you have?	During the lesson check in
Fact Practice Spots and Dots There is a master of Double 9 Dominos attached to this lesson plan. You will need 1 full set	With students repeatedly. Check in about what is happening and what they
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.	are thinking. Take advantage of any teachable moments.
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	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.
Addition: 2 + 3 = 5 Math Vocabulary	It is important to review



Math term: remainder Description: The term "remainder" refers equally and there are not enough things lef 25 cookies and 5 people, you could give ea left over or one remaining. The 1 would be equal to or larger than the divisor. If that we opportunity to have one more. Have student review his/her Vocabulary No Any corrections that need to be made show	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 Notebook Sample:		vocadulary Noledooks can
New Word	My Description	composition book.
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	
	Activity	Focus on having young
Divide! This activity was worked on yesterday. As game that is helpful. Have students share pairing today.	k students what they learned about playing the strategies. Ask students to work in a different	people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.
Dividing is the inverse of multiplication. Stuthat numbers can be evenly divided, perha although 9 x 8 = 72, the product 72 can be possibilities as well). This activity will give	udents need to practice division and understand ps by more than one number. For example, divided evenly by 2, 3, 4, and 6 (other students an opportunity to practice division.	
 Divide! <u>Directions:</u> Divide students into pairs. Give each pair a deck of cards, a whit Pair prepares the deck by removing jot Shuffle the cards and deal 3 cards to a facedown pile. Player turns two cards over and multiplied together over are a 5 and a 8. Multiplied together over an and the product evenly. Player gats and point for each division 	e board, and pen/crayons. okers and face cards. each player and places the remaining cards in a olies them together. Example: cards turned her the product is 4. I determine if they have a card that will divide the	



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.
0	Once play bac finished, all cards are discarded and play begins again (deal 2 card

- 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

•	•	•	





















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

Materials:

White boards Crayolas Socks Vocabulary Notebooks deck of cards, no face cards or jokers for math fact practice

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 *Activity \rightarrow Teachable Look at the table below. Were more cookies sold on Tuesday and Wednesday or on Moment(s) *throughout* Wednesday and Thursday? How do you know? During the lesson check in with students repeatedly. \$ of Cookies Day Check in about what is Monday 27 happening and what they are Tuesday 73 thinking. Wednesday 56 Take advantage of any Thursday 71 teachable moments. 72 Friday Stop the class and focus on a Fact Practice student's key learning or Draw! understanding. Ask openended questions to 1. Divide students into pairs and give each pair a deck of cards. determine what the rest of 2. Remove the face cards and jokers from the deck of cards. the group is thinking. 3. Shuffle the deck. When possible, engage students in a "teach to learn" 4. Decide who will go first. opportunity and have the 5. First player draws two cards. student become the teacher. 6. Student adds or subtracts the cards.



7. Student writes his/her problem on the v		
sentence.		
8. Students take turns drawing cards and	creating problems.	
Math VoWord for Today: quotientDescription: The term "quotient" refers to the a dividend \div divisor = quotient. $12 \div 3 = 4$. In dividend and the 3 is the divisor).Have students look at the problems below and $9 \div 3 = 3$ $16 \div 4 = 4$ $49 \div 7 = 7$ $32 \div 8 = 4$	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).	
Have student complete his/her Vocabulary Note	ebook for the term "quotient".	be made from ½ of a composition book.
Vocabulary Notebook Sample:	My Description	
	My Description	
quotient	The answer in a division problem	
Personal Connection	Drawing 12 divided by 3	
The problem 28 ÷ 7 = 4		
Act Div	Focus on having young people "compete" in pairs or small groups. Once a game	
Dividing is the inverse of multiplication. Studen that numbers can be evenly divided, perhaps b although 9 x 8 = 72, the product 72 can be divid as well). This activity will give students an oppo	is mastered you can utilize it in the "When Homework Is Complete" center.	
 Divide! <u>Directions:</u> 1. Divide students into pairs. 2. Give each pair a deck of cards, a white bo 3. Pair prepares the deck by removing jokers 4. Shuffle the cards and deal 3 cards to each 		
facedown pile.Player turns two cards over and multiplies are a 5 and a 8. Multiplied together the pr		
 Players then looked at their cards and deter product evenly. 		
<i>i</i> . Player gets one point for each division pro		



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.	
0	Once play has finished all cards are discarded and play begins again (deal 3 cards turn	L

- 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.



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.
- 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*

d how	During the lesson check in with students repeatedly.		
	Check in about what is happening and what they are thinking.		
10s).	Take advantage of any teachable moments.		
nd , the	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.		
equals ww.add	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: 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:		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
New Word estimation	My Description making an educated guess about how much	be made from ½ of a composition book.
Personal Connection	Drawing	
In his estimation there are 100 jelly beans in the jar.		
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.		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.
Checkers Practice of multiplication and division facts is im automaticity. This activity takes the game Chec practice math facts while playing Checkers. In the product or quotient for the math fact in that	portant until students have them memorized to ckers and gives students an opportunity to order to move to a space, student must provide square.	
 Checkers <u>Directions:</u> 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. 		



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 $48 \div 6$, 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:	Rounding and 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?





It is important to review academic math vocabulary

often throughout the day.

Complete the Vocabulary

students experience the word

right angle, multiple students

Vocabulary Notebooks can

(Ex. 4 students creating a

acting out an equation).

be made from $\frac{1}{2}$ of a

composition book.

notebook for each word.

When possible, have

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.

Vc	cabulary Notebook Sample:		
Ν	lew Word		
	rounding	5 or higher round up, 4 or lower, leave alone	
F	Personal Connection	Drawing	
	Do you know how to round the number 386 to the hundred's place?	386 rounded is 400	
Activity Checkers		Focus on having young people "compete" in pairs or small groups. Once a game	
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.		is mastered you can utilize it in the "When Homework Is Complete" center.	
Di	rections:		
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	3. Pair tapes two pieces of the Checkers Board together and puts his/her markers on the board.		
 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.			



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 =
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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 $48 \div 6$, 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:	MMWDC Review
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

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. (Aha!)



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Math Fun! #1
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	*Activity → Teachable Moment(s) <i>throughout</i>	
John has been rolling a die. He has written down each number that he rolls. Make a tally chart using the numbers.	During the lesson check in with students repeatedly.	
Rolls: 2, 1, 2, 4, 4, 6, 3,6,5, 5, 3, 1,4, 1, 5, 5, 5,	Check in about what is happening and what they are 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 	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	



correct, or has to turn over 2 cards	When possible, engage	
• At the end of round, students may r	students in a "teach to learn"	
Play can continue until one player h	opportunity and have the student become the teacher	
Math \	/ocabulary	It is important to review
Word for Today: decimal		academic math vocabulary
Description: The term decimal is used to c	escribe the period or the dot that is put in a	often throughout the day
number to show where the whole number e	nds and the fractional part of the number	Complete the Vocabulary
decimal in it we say the word "and" when w	e come to the decimal. That and signifies that	When possible have
everything said before refers to whole thinks	and everything that is said after is going to be	students experience the word
a part of a whole. The two most commonly	used parts are 10 parts or 100 parts, which we	(Ex. 4 students creating a
refer to as tenths or hundredths. Give seve	right angle, multiple students	
Create an entry in your Vocabulary Noteboo	k for the term "decimal"	Vocabulary Notebooks can
Vocabulary Notebook Sample:		be made from $\frac{1}{2}$ of a
New Word	My Description composition book	
picnic	Hot dogs, mustard, catsup, drinks, ball	
	games, family fun at the park	
Personal Connection	Drawing	
	Siddinia	
I love to go to the park with my family.		
We take a picnic lunch and barbeque hot		
uogs.		
A	ctivity	Focus on having young
De	cimals	people "compete" in pairs or
A decimal is a "dot" or a period that separat	as a whole number from a portion of a number	is mastered you can utilize it
Unlike fractions, decimals are written in tent	in the "When Homework Is	
denominator for tenths is 10 and the denom	Complete" center	
whole number, such as 345, the three repre		
In this number, 345.23 the 3 4 and 5 stav		
the word "and". The 2 represents 2 tenths a		
would be read: 3 hundred forty-five AND 23		
\$345.23 and we would say 345 dollars and		
We are going to work on identifying, reading		
Decimals 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.	

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? 31 3.1 0.31 3.01
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?
What decimal matches the shaded part of this rectangle? 5 0.05 0.5 5.5	Which decimal matches the shaded part of these rectangles?



What decimal matches the shaded part of this rectangle?	What decimal matches the shaded part of this rectangle?
0.8 8 8.3 0.08	1.9 0.01 1 0.1
What decimal matches the shaded part of this rectangle? 9 9.1 0.09 0.9	What decimal matches the shaded part of these rectangles?
What decimal matches the shaded part of these rectangles?	What decimal matches the shaded part of these rectangles?
17.0 1.07 1.7 0.17	1.6 1.06 16.0 0.16







Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Math Fun! #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	*Activity → Teachable Moment(s) <i>throughout</i>			
second in line and Kyle is third. Jake is behind Kyle and in front of Bonnie. Who is first and how do you know?	During the lesson check in with students repeatedly.			
Fact Practice	Check in about what is			
Foreheader	happening and what they are thinking.			
 Shuffle the deck and give all of the cards to the referee who will be "judging" the contest On go, players are each handed a card by the referee and WITHOUT looking, put the card 	Take advantage of any teachable moments			
face out on his/her forehead4. The referee adds the two numbers together and states the answer	Stop the class and focus on a student's key learning or			
 Each player looks at the other person's exposed number and names his/her own number Person who wins (accuracy and time), collects both cards 	understanding. Ask open- ended questions to			
 Play continues until all cards are gone. Players can repeat play (if there is another time) with each other so each has an 	determine what the rest of the group is thinking			
opportunity to be both a player and referee	When possible, engage students in a "teach to learn"			



		opportunity and have the student become the teacher
Math V Word for today: tenths Description: The term, tenths, refers to 1 of 7, 8, or 9 tenths and have less than one wh Think in terms of needing 10 dimes to equa writing a number is the first place after the of tenths, remember that the decimal point is s tenths place and no other number comes at the word tenths to indicate that this is the lat examples. Create an entry for the word "tenths" in you Vocabulary Notebook Sample: New Word	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	
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.		
A	ctivity	Focus on having young
Decimals A decimal is a "dot" or a period that separat Unlike fractions, decimals are written in tent denominator for tenths is 10 and the denom whole number, such as 345, the three repre- represents 5 (ones). The decimal point wor In this number, 345.23, the 3, 4, and 5 stay the word "and". The 2 represents 2 tenths a would be read: 3 hundred forty-five AND 25 \$345.23 and we would say 345 dollars and pennies you would need for a dollar. We are going to work on identifying, reading	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.

	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" studen	t 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 Decimals

What dec of the rec 0.3	cimal mato tangle? 3.7	hes the sha	ided part	What deci of these re 31	mal mato ectangles	hes the sh ? 0.31	naded part
What dec of this rec 4	cimal mato ctangle? 0.04	ches the sha	ided part	What deci of this rect 2.8	mal mato tangle?	hes the sh	naded part
What dec of this rec 5	cimal mato ctangle? 0.05	ches the sha	ıded part	Which dec part of the 2.07	cimal mat se rectar 2.7	ches the s igles? 27.0	haded



What decimal matches the shaded part of this rectangle? 0.8 8 8.3 0.08	What decimal matches the shaded part of this rectangle?
What decimal matches the shaded part of this rectangle? 9 9.1 0.09 0.9	What decimal matches the shaded part of these rectangles?0.373.737.03.07
What decimal matches the shaded part of these rectangles? 17.0 1.07 1.7 0.17	What decimal matches the shaded part of these rectangles? 1.6 1.06 16.0 0.16







Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Math Fun! #3
Focus:	Decimals

Materials:		
White boards	Vocabulary Notebooks	Activity at end of this lesson plan
Crayolas	Dice	
Socks	Cards(remove face cards, use the joke	er 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	*Activity → Teachable Moment(s) <i>throughout</i>	
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?	During the lesson check in with students repeatedly.	
Fact Practice Spokes on a Wheel Divide students into pairs	Check in about what is happening and what they are thinking.	
 On a white board, student draws a small circle with 9 spokes coming out of it (should look like a bicycle tire) 	Take advantage of any teachable moments	
 Have students choose to put a 6, 7 or 8 in the center circle Student rolls two dice and adds the pips (dots) 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 	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	



6. Process continues until all spokes have an equation		students in a "teach to learn" opportunity and have the student become the teacher
Math VocabularyWord for today: hundredthsDescription: Hundredths is a term that we use to describe one of 100 equal parts muchlike there are 100 pennies in a dollar. Each penny is $\frac{1}{100}$ of a dollar. In a number that has adecimal point, if there is a number in two places to the right of that decimal, you would callthat hundredths. 5.03 is said, five a 3 hundredths. 5.32 would be said, five and thirty-twohundredths. Since the 2 is in the hundredths place, the 3 and the 2 are said 32 and thengiven the "title" of hundredths.Students complete the Vocabulary Notebook for the term "hundredths".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
picnic	Hot dogs, mustard, catsup, drinks, ball games, family fun at the park	composition book
Personal Connection I love to go to the park with my family. We take a picnic lunch and barbeque hot dogs.	Drawing	
Activity DecimalsHundredths PlaceThe 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 hundredths26 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 <u>Directions:</u> 1. Divide students into pairs 2. Give each pair a white board and a set 3. Player 1 draws a card and selects an a 		



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" 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 this box.	Write a decimal for the shaded part of this box.
Write a decimal for the shaded part of this box.	Write a decimal for the shaded part of this box.
Write a decimal for the shaded part of this box.	Write a decimal for the shaded part of this box.



Write a decimal for the shaded part of this box.	Write a decimal for the shaded part of this box.
Write a decimal for the shaded part of this box.	Write a decimal for the shaded part of this box.
Write a decimal for the shaded part of	Write a decimal for the shaded part of



Write a decimal for the shaded part of this box.	Write a decimal for the shaded part of this box.
Write a decimal for the shaded part of this box.	Write a decimal for the shaded part of this box.
Write a decimal for the shaded part of this box.	Write a decimal for the shaded part of this box.



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Math Fun! #4
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) <i>throughout</i>
Look at the 5 numerals below. Write the largest number that you can. Then write the smallest. Tell your neighbor how you know that you are correct.	During the lesson check in with students repeatedly.
4 9 2 7 5	Check in about what is happening and what they are thinking.
Fact Practice Addition Ladder	Take advantage of any teachable moments
 Give each student a white board (include marker or crayola) Student should draw a ladder like the one below 	Stop the class and focus on a student's key learning or understanding. Ask open- ended questions to determine what the rest of



6 7 7 7 8 7 7 7 7 8 7 7 7 7 8 7 7 7 7 7 7 7 7 7 7 7 7 7		the group is thinking When possible, engage students in a "teach to learn" opportunity and have the student become the teacher
Math V	/ocabulary	It is important to review
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.		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
New Word	My Description	right angle, multiple students
picnic	Hot dogs, mustard, catsup, drinks, ball games, family fun at the park	Vocabulary Notebooks can be made from ½ of a composition book
Personal Connection	Drawing	
I love to go to the park with my family. We take a picnic lunch and barbeque hot dogs.		
Activity		Focus on having young
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 hundredths26 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.		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 this box.	Write a decimal for the shaded part of this box.
Write a decimal for the shaded part of this box.	Write a decimal for the shaded part of this box.
Write a decimal for the shaded part of this box.	Write a decimal for the shaded part of this box.



Write a decimal for the shaded part of this box.	Write a decimal for the shaded part of this box.
Write a decimal for the shaded part of this box.	Write a decimal for the shaded part of this box.
Write a decimal for the shaded part of this box.	Write a decimal for the shaded part of this box.



Write a decimal for the shaded part of this box.	Write a decimal for the shaded part of this box.
Write a decimal for the shaded part of this box.	Write a decimal for the shaded part of this box.
Write a decimal for the shaded part of this box.	Write a decimal for the shaded part of this box.



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Math Fun! #5
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) <i>throughout</i>	
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	
 Place the cards face up in a TicTac Toe Grid 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 6. Each card may be used only one time 7. As the cards are being picked up, the example if the target card is 10, then 4. 8. After one player finishes his/her turn, the remaining deck 9. Player with the most cards at the end 	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		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
take a picnic lunch and barbeque hot dogs.	ctivity	Focus on having young
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 Poord		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 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.

	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 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 the 3 in 246.35?	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
L	1	1	1	hundredths



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Math Fun! #6
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) <i>throughout</i>
Martha wants to plant 55 daffodils. Each flower pot will hold 10 daffodils. How many flower pots will she 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 Hunt	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	the group is thinking				
	When possible, engage students in a "teach to learn"				
	opportunity and have the				
		student become the teacher			
Math V	ocabulary	It is important to review			
Description: The term and is the word we us	se when we are reading a number aloud and it	often throughout the day			
has a decimal point in it. When we come to the	he decimal point, we say the word "and" to	Complete the Vocabulary			
indicate the decimal point. Sometimes people	e say the word "and' in between the word	notebook for each word.			
nundred and 26, for example 3 hundred and 2 saving is 300.26. So if you want to say 326, y	26. If you say a number that way, what you are you need to say three hundred twenty-six and	students experience the word			
leave out the word "and".		(Ex. 4 students creating a			
Create an entry in your Vocabulary Notebook	for the word and.	right angle, multiple students			
New Word	My Description	Vocabulary Notebooks can			
		be made from $\frac{1}{2}$ of a			
picnic	Hot dogs, mustard, catsup, drinks, ball	composition book			
	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.					
Ac	ctivity	Focus on having young			
Dee Tenths and Hundredths Place Value	cimals	small groups. Once a game			
It is important that students be able to move e	asily between the place value of whole numbers	is mastered you can utilize it			
(thousands hundreds, tens, and ones) and bo	th tenths and hundredths which represent a	In the "When Homework Is Complete" center			
portion of the whole.					
In the activity today and tomorrow, students w					
Which Place?					
1. Divide students into pairs					
2. Give each pair a set of Which Place? Ca					
 Player one draws a Which Place? Card a number represents. 					
4. Player places a token on the word on the					
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.

C	Closing			
F	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 g	etting 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
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?




Which Place? Game Board

tenths	ones	hundreds	tens	hundredths
		<u></u>		hundreds
ones	hundredths	tens	hundreds	tenths
tenths				
tens	ones	tens	hundreds	tenths
				hundredths



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Math Fun! #7
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")				
What is	Problem of the Day 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.			
1.	Divide students into pairs and give each pair a deck of cards	Take advantage of any teachable moments			
2. 3.	Shuffle the deck.	Stop the class and focus on a student's key learning or			
4.	Decide who will go first.	understanding Ask open-			
5.	First player draws two cards.	ended guestions to			
6.	6. Student adds or subtracts the cards. determine what the rest of				



			1
7. Student writes his/her problem on the white board, writing a complete number			the group is thinking
sentence.			When possible, engage
8. Students take turns drawing cards and creating problems.			students in a "teach to learn"
o. Students take turns drawing cards and creating problems.			opportunity and have the
			student become the teacher
	Math \	/ocabulary	It is important to review
,	Word for Today: groatest	,	academic math vocabulary
	Description . The term greatest in meth refe	re to which is larger; which has the greatest	often throughout the day
	volue. Since we only have 10 numerals (0, 1	2 2 4 5 6 7 9 and 0 the place that a	Complete the Veeebulery
	number is in determines to value and helps w	, 2, 3, 4, 5, 0, 7, 0, and 9), the place that a	notobook for oach word
	decimals, it is important to look first at the wh	ole number if there is one to the left of the	
	decimals, it is important to look first at the wind	n another in to the left of the decimal, then the	vvnen possible, nave
	decision is easy. If the numbers to the left ar	a the same, then must look at the numbers to the	students experience the word
	right of the decimal and ask yourself which is	larger or greatest. Look at several examples to	(EX. 4 Students creating a
	determine if students understand this concer	it	nght angle, multiple students
		···	
	Have student complete his/her \/ocabulary N/	atebook for the term "greatest"	Vocabulary Notebooks can
1	Vocabulary Notebook Sample:	Sebook for the term greatest.	
	New Word	My Description	composition book
	nicnic	Hot dogs mustard catsup drinks ball	
	pionio	games family fun at the park	
		gamoo, tanniy tan at alo pant	
	Personal Connection	Drawing	
	I love to go to the park with my family. We		
	take a picnic lunch and barbeque hot		
	dogs.		
	A	ctivity	Focus on having young
	De	cimals	people "compete" in pairs or
	• • • • •		small groups. Once a game
(Greatest to Least		is mastered you can utilize it
4	Another skill that students need to master wh	en dealing with decimals if the ability to order	In the "When Homework Is
1	them from greatest to least or least to greates	st. I his is something that will help students as	Complete" center
	they begin to add, subtract, multiply, divide ar	no compare decimais.	
	Greatest to Least		
	Directions:		
	1 Divide students into nairs		
	2 Give each pair a white board or a copy of	f the number line (either laminate or place in a	
	transparent sheet protector and a deck		
	3. Player 1 draws a card and orders the nu		



1 and 2 discuss,	making any	corrections needed.
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- 4. Player 2 repeats the process.
- 5. Game is over when all cards have been drawn.

	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 s	same thing in the "real world"?
What advice would you give to a "new" studen	t 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 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 2 1.4 1.2 1.0	On the white board, write the following in order from greatest to least 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		



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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 white board, write the following in order from greatest to least	On the white board, write the following in order from greatest to least
4.03 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 board, write the following in order from greatest to least	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
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	e board, wi reatest to	rite the follo least…	owing in	On the whi order from	te board, w greatest to	vrite the foll least	owing in
3.92	3.98	30.9	0.95	6.04	64.3	6.78	0.69
On the white order from g	e board, w reatest to	rite the follo least…	owing in	On the whi order from	te board, w greatest to	vrite the foll least	owing in
50.71	5.07	0.51	1.53	3.11	31.1	42.9	41.6
On the white order from g	e board, w reatest to	rite the follo least…	owing in	On the whi order from	te board, w greatest to	vrite the foll least	owing in
2.84	0.89	1.87	3.12	7.24	72.41	7.04	0.74
On the white order from g	e board, w reatest to	rite the follo least	owing in	On the whi order from	te board, w greatest to	vrite the foll least	owing 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:	Math Fun! #8
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	*Activity → Teachable
Linda wants to write the number 82,479 in expanded notation. She writes 80,000 + 400 + 70	Moment(s) throughout
+ 9. Is she correct? How do you know?	During the lesson check in
Fact Practice	with students repeatedly.
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	Check in about what is happening and what they are thinking.
and if possible, laminate for use again in the future.	Take advantage of any teachable moments
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	Stop the class and focus on a student's key learning or understanding. Ask open- ended 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 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. Drawing		It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation) Vocabulary Notebooks can be made from ½ of a composition book
Greatest to Least Another skill that students need to master withem from greatest to least or least to greated they begin to add, subtract, multiply, divide a Greatest to Least Directions: 1. Divide students into pairs 2. Give each pair a white board or a copy transparent sheet protector, and a decl	Activity ecimals hen dealing with decimals if the ability to order est. This is something that will help students as and compare decimals. of the number line (either laminate or place in a < 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



- 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.

С	losing
R	leview
Say:	
 Please recap what we did today. 	
 Did we achieve our objectives? 	
D	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 sam	ne thing in the "real world"?
What advice would you give to a "new" student ge	etting 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



					•	•	•
•	•	•	•	•	•		•









Do not use		
Do not use		









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



Г

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 white board, write the following in order from greatest to least	On the white board, write the following in order from greatest to least
4.03 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 board, write the following in order from greatest to least	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
6.01 60.1 0.61 .06	0.98 9.80 1.98 3.09



On the such it				On the whi			
On the white board, write the following in order from greatest to least			order from	greatest to	b least	owing in	
24.09	2.49	31.21	2.41	2.45	2.33	0.98	1.69
On the whit order from	te board, w greatest to	rite the follo least…	wing in	On the whi order from	te board, v greatest to	vrite the foll least	owing in
3.92	3.98	30.9	0.95	6.04	64.3	6.78	0.69
On the whit order from	te board, w greatest to	rite the follo least	wing in	On the whi order from	te board, v greatest to	vrite the foll least	owing in
50.71	5.07	0.51	1.53	3.11	31.1	42.9	41.6
On the whit order from	te board, w greatest to	rite the follo least	wing in	On the whi order from	te board, v greatest to	vrite the foll least	owing in
2.84	0.89	1.87	3.12	7.24	72.41	7.04	0.74
On the whit order from	te board, w greatest to	rite the follo least	wing in	On the whi order from	te board, v greatest to	vrite the foll least	owing 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:	Math Fun! #9
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.	*Activity → Teachable Moment(s) <i>throughout</i> 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 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		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	
	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 V Word for Today: vertical Description: The term "vertical refers to som upright and not sideways. When we add or s problems vertically and line up the decimal por addition and subtraction of decimals is as sim Have student create and entry in his/her Voca Any corrections that need to be made should 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)	
New Word My Description picnic Hot dogs, mustard, catsup, drinks, ball games, family fun at the park		Vocabulary Notebooks can be made from ½ of a composition book
Personal Connection I love to go to the park with my family. We take a picnic lunch and barbeque hot dogs.	Drawing	
Adding Decimals Addition of decimals is just like adding whole addition of decimals requires you to write the line the decimals of the numbers up. For exa need to rewrite the problem in this way: As you can see there is no numeral over the f it to make the numbers even. This would ma added to the right does not change the value will work on adding decimals. Demonstrate and model several problems for activity successfully.	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	
 Adding Decimals <u>Directions:</u> 1. Divide students into pairs 2. Give each pair a set of Decimal Addition 3. Together, the pair is to select a card and 4. When all of the problems are finished, the 		



	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 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 Adding Decimals

5.4	7.4	9.8	4.2
<u>+3.1</u>	<u>+5.5</u>	<u>+3.0</u>	<u>+7.4</u>
7.5	2.6	3.5	7.4
<u>+3.9</u>	<u>+3.1</u>	<u>+5.7</u>	<u>+5.3</u>
2.1	5.0	2.1	4.6
<u>+5.5</u>	<u>+4.9</u>	<u>+9.2</u>	+5.9
8.8	2.9	1.4	1.1
<u>+5.2</u>	<u>+5.1</u>	<u>+1.3</u>	<u>+4.6</u>
6.21	24.3	2.27	7.05
<u>+.43</u>	<u>.7</u>	<u>+3.41</u>	<u>+.41</u>



16.3	1.2	18.01	82.1
<u>+21.9</u>	<u>+6.3</u>	<u>+1.23</u>	<u>+.7</u>
22.9	6.53	3.69	9.84
<u>+7.2</u>	<u>+9.86</u>	<u>+9.28</u>	<u>+1.28</u>
3.96	2.38	8.52	1.74
<u>+9.16</u>	<u>+4.27</u>	<u>+5.38</u>	<u>+5.85</u>
9.86	9.21	8.4	2.3
<u>+3.50</u>	<u>+9.94</u>	<u>+4.6</u>	<u>+9.9</u>
5.4	6.7	5.53	8.3
<u>+6.9</u>	<u>+8.3</u>	<u>+2.79</u>	<u>+7.4</u>



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Math Fun! #10
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	*Activity → Teachable Moment(s) <i>throughout</i>		
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.	During the lesson check in with students repeatedly.		
7 4 5 3 6	Check in about what is happening and what they are thinking.		
Fact Practice Bump It Up! Add A Zero	Take advantage of any teachable moments		
 Divide students into pairs Give each pair a white board and a deck of cards (without face cards, jokers, or 10s) The object of this fact practice is to sum numbers until you reach 1,000. Student draws 2 cards, adds the value of the cards together, multiplies by ten and writes the total on the sheet. It is not the other person's turn to do the same 	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 play returns to the first player, the process is repeated, although this time, the totals are added together. First person to 1,000 wins. 	When possible, engage students in a "teach to learn" opportunity and have the		



8. Example: Player draws a 7 and a 4.	student become the teacher	
110. Next turn, player draws a 3 and		
50 to 110 for a total of 160.		
Math V	It is important to review	
Word for Today: line up the decimals		academic math vocabulary often throughout the day
Description: The term "line up the decimals" subtracting numbers with decimals it is essent you line up the decimals so you are adding to	Complete the Vocabulary notebook for each word.	
Practice this by writing several problems on the	he board and the white boards.	students experience the word (Ex. 4 students creating a
Create the entry for the term "line up the decir	mals" in the Vocabulary Notebook with a peer.	right angle, multiple students acting out an equation)
Vocabulary Notebook Sample:		Vocabulary Notebooks can
New Word	My Description	be made from ½ of a composition book
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.		
Ac	tivity	Focus on having young
De	cimals	people "compete" in pairs or
Adding Decimals Addition of decimals is just like adding whole addition of decimals requires you to write the line the decimals of the numbers up. For examineed to rewrite the problem in this way:	small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center	
As you can see there is no numeral over the f it to make the numbers even. This would make added to the right does not change the value will work on adding decimals. Demonstrate and model several problems for activity successfully.		
Adding Designals		
Adding Decimais		





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.			

- 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
<u>+3.1</u>	<u>+5.5</u>	<u>+3.0</u>	<u>+7.4</u>
7.5	2.6	3.5	7.4
<u>+3.9</u>	<u>+3.1</u>	<u>+5.7</u>	<u>+5.3</u>
2.1	5.0	2.1	4.6
<u>+5.5</u>	<u>+4.9</u>	<u>+9.2</u>	<u>+5.9</u>
8.8	2.9	1.4	1.1
<u>+5.2</u>	<u>+5.1</u>	<u>+1.3</u>	<u>+4.6</u>
6.21	24.3	2.27	7.05
<u>+.43</u>	<u>.7</u>	<u>+3.41</u>	<u>+.41</u>



16.3	1.2	18.01	82.1
<u>+21.9</u>	<u>+6.3</u>	<u>+1.23</u>	<u>+.7</u>
22.9	6.53	3.69	9.84
<u>+7.2</u>	<u>+9.86</u>	<u>+9.28</u>	<u>+1.28</u>
3.96	2.38	8.52	1.74
<u>+9.16</u>	<u>+4.27</u>	<u>+5.38</u>	<u>+5.85</u>
9.86	9.21	8.4	2.3
<u>+3.50</u>	<u>+9.94</u>	<u>+4.6</u>	<u>+9.9</u>
5.4	6.7	5.53	8.3
<u>+6.9</u>	<u>+8.3</u>	<u>+2.79</u>	<u>+7.4</u>



teams

Consult 4 Kids Lesson Plans

Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Math Fun!
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 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

 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:	Math Fun! #1
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	*Activity → Teachable Moment(s) <i>throughout</i>			
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	During the lesson check in with students repeatedly.			
to attend the concert. Fairview: 142 students Jefferson: 160 students Martin: 130 students Johnson: 68 students	Check in about what is happening and what they are thinking.			
Washington: 115 student Wilson: 205 students	Take advantage of any teachable moments.			
 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 	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 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 	students in a "teach to learn" opportunity and have the student become the teacher.			



	Play can continue until one player has			
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".			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)	
P	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		Vocabulary Notebooks can be made from ½ of a composition book.	
ľ	f I am skip counting by 4s, I would say 4, 8, 12, 16, 20…	And		
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.			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.	
Sk <u>Dir</u> 1. 2. 3. 4. 5.	 Skip Counting <u>Directions:</u> 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) 			



Review Say: Please recap what we did today.
 Please recap what we did today.
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:	Math Fun! #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

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 Vo	It is important to review	
Word for today: multiples	academic math vocabulary	
Description: The term, multiples, refers to the	often throughout the day.	
together. For example, the multiples of 4 are	Complete the Vocabulary	
numbers by multiplying 4 x 1, 4 x 2, 4 x 3, 4 x	notebook for each word.	
allows you to understand how different number	When possible, have	
for the number 3 and 4 are 12, 24, 36 and so	students experience the word	
multiples are.	(Ex. 4 students creating a	
Create an entry for the word "multiples" in you	right angle, multiple students	
Vocabulary Notebook Sample:	acting out an equation).	
New Word	Vocabulary Notebooks can	
Personal Connection	be made from ½ of a	
I have socks in multiples of 2.	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. Player 1 is finished, 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.



	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 s	ame 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




Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Math Fun! #3
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	*Activity → Teachable Moment(s) <i>throughout</i>		
Find the missing number. How did you find the number?	During the lesson check in with students repeatedly.		
26 = 14	Check in about what is		
Fact Practice	happening and what they are thinking.		
 Divide students into pairs On a white board, student draws a small circle with 9 spokes coming out of it 	Take advantage of any teachable moments.		
 Chi a white board, student draws a small circle with 5 spokes conning out of it (should look like a bicycle tire) Have students choose to put a 6, 7 or 8 in the center circle Student rolls two dice and adds the pips (dots) 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 	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.		
6. Process continues until all spokes have an equation	students in a "teach to learn" opportunity and have the student become the teacher.		



It is important to review academic math vocabularv

often throughout the day

Complete the Vocabulary

students experience the word (Ex. 4 students creating a

right angle, multiple students

notebook for each word.

When possible, have

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 x 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".

Vacabulary Natabaak Sampla:

Vocabulary Notebook Sample:	acting out an equation)	
New Word multiplication	My Description A fast was to add the same number for a certain number of times.	Vocabulary Notebooks can be made from ½ of a composition book
Personal Connection	Drawing	
Multiplication is easier that subtraction.	5 x 4 = 20	
Ac	tivity	Focus on having young

ACTIVITY Multiplication people "compete" in pairs or small groups. Once a game Multiplication is actually repeated addition. You add the same number a set number of is mastered you can utilize it times and that becomes a multiplication problem. Multiplication is also learning about skip in the "When Homework Is counting. If you count by 2's, you skip every other number. You would say 2, 4, 6, 8, 20, Complete" center 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
- Play is over when one player has 4 tokens in a row. 5.



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

- Ask them to comment on what they did today that was like something they had done before except in on 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







Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Math Fun! #4
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

Fact Practice

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?

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 \rightarrow 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 VocabularyWord for Today: repeated additionDescription: The term repeated addition refers to the process of multiplication. It is what we do in a simplified way to make the process easier. It is easier to multiply if you have memorized your multiplication facts. This means that you know them automatically, without thinking. Repeated addition means adding the same number over and over: $3 + 3 + 3 + 3 + 3 + 3 + 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
New Word repeated addition	My Description Add the same number together over and over, 3 + 3 + 3 + 3 + 3 = 3 x 5	right angle, multiple students acting out an equation). Vocabulary Notebooks can be made from ½ of a composition book.
Personal Connection Multiplication is really just repeated addition.	Drawing 3+3+3+3	
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 <u>Directions:</u> Divide students into pairs Give each pair a deck of cards with the face cards, jokers, and 10s removed. Shuffle the cards and deal out all of the cards to the 2 players Simultaneously, players turn over a card and multiply these two numbers together. The player who gets the product correct first, wins both cards. Play is over when one person has all of the cards. 		



Closing		
Review		
Sav.		
Diagon recen what we did to dow		
• 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:	3 rd Grade
Lesson Title:	Math Fun! #5
Focus:	Multiplication

Materials:		
White boards	Vocabulary Notebooks	
Crayolas	Deck of Cards for each pair	
Activity at the end of this lesso	on 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	*Activity → Teachable Moment(s) <i>throughout</i>	
Create a story problem for this number sentence:	During the lesson check in	
425 – 345 = 80	with students repeatedly.	
Fact Practice	Check in about what is happening and what they are thinking.	
1. Divide students into trios	Take advantage of any	
2. Each trio needs a deck of cards without face cards and jokers	teachable moments.	
3. Place the cards face up in a TicTac Toe Grid	Stop the class and focus on a	
 Turn up a 10th card which will be to the side and becomes the target number (aces count as 1) 	student's key learning or understanding. Ask open-	
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.	determine what the rest of the group is thinking.	
Each card may be used only one time in the equation	When possible, engage	
 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. 	students in a "teach to learn" opportunity and have the student become the teacher.	



8. After one player finishes his/her turn, th	nen the cards taken are replaced by cards from	
the remaining deck		
9. Player with the most cards at the end c	n në game win	
Math Vo	cabulary	It is important to review
Word for today: multiplication facts		academic math vocabulary
Description: The term "multiplication facts" ret	fers to all of the basic multiplication facts, 1 x 1	often throughout the day.
through 12 x 12. Having those facts committed	to memory and knowing them automatically	Complete the Vocabulary
makes the whole process of multiplication easier	er. There are tables that you can find that will	Notebook for each word.
show the answer to each of the facts.		students experience the word
Students should complete the vocabulary Note	book for the term multiplication facts.	(Ex. 4 students creating a
New Word	My Description	right angle, multiple students
		acting out an equation).
multiplication facts	Multiplication basics, 3 x 4, 6 x 8, 9 x 2	Vocabulary Notebooks can
		be made from ½ of a
Personal Connection	Drawing	
The multiplication facts that make my age	<u>3x4</u>	
Act	ivitv	Focus on having young
Multip	ication	people "compete" in pairs or
·		small groups. Once a game
Multiplication is actually repeated addition. You	add the same number a set number of times	is mastered you can utilize it
and that becomes a multiplication problem. Mu	Itiplication is also learning about skip counting.	Complete" center
If you count by 2's, you skip every other number	r. You would say 2, 4, 6, 8, 20, 12, 14, 16, 18,	
20 and so on. Those numbers that you say are		
would say 3. 6. 9. 12. 15. 18. 21. 24. 27. 30 and		
Math Jeopardy		
Directions:		
1. Divide students into pairs		
 Give each pair a set of Jeopardy Cards and Game Board 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 "guestions" are covered.		



- 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 Fun! #6
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) <i>throughout</i>				
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 1. Divide students into pairs 2. Each pair needs a Number Hunt sheet (attached to this lesson plans)	Check in about what is happening and what they are thinking. 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 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.				



Math Vo	It is important to review		
Word for Today: product	academic math vocabulary		
Description: The term product is used to desc 2 numbers together. The product of 3 x 4 is 12 x 2?	cribe the answer that you get when you multiply What is the product of 5 x 6? Of 3 x 8? Of 6	often throughout the day. Complete the Vocabulary notebook for each word.	
Create an entry in your Vocabulary Notebook for	or the term product.	When possible, have	
Vocabulary Notebook Sample:		students experience the word (Ex. 4 students creating a	
New Word	My Description	right angle, multiple students	
product	When you multiply numbers you end up with a product as the answer.	Vocabulary Notebooks can be made from $\frac{1}{2}$ of a composition book.	
Personal Connection	Drawing		
The product of 7 x 6 is 42.	42		
Act	ivity	Focus on having young	
Multiplication is actually repeated addition. You and that becomes a multiplication problem. Multiplication problem that you count by 2's, you skip every other number 20 and so on. Those numbers that you say are 10, 15, 20, 25, 30, 35, 40, 45, 50 those are the would say 3, 6, 9, 12, 15, 18, 21, 24, 27, 30 and	people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.		
Math Jeopardy Directions:			
1. Divide students into pairs			
2. Give each pair a set of Jeopardy Cards an			
3. Shuffle the Jeopardy Cards and place the			
4. Player 1 draws a card which is the answer			
5. Player 1 then determines which problem of			
the "answer" on his/her card and places a			
	marker on the problem		
6. Player 2 then plays in the same way	marker on the problem		



- 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 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 Fun! #7
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 less	on 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 Joev has 10 white socks, 2 brown socks, and 14 red socks, If he grabs a sock without	*Activity → Teachable Moment(s) <i>throughout</i>
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.	During the lesson check in with students repeatedly.
Fact Practice	Check in about what is
Draw!	happening and what they are thinking.
1. Divide students into pairs and give each pair a deck of cards	Take advantage of any
Remove the face cards and jokers from the deck of cards.	teachable moments.
3. Shuffle the deck.	Stop the class and focus on a
4. Decide who will go first.	student's key learning or
5. First player draws two cards.	understanding. Ask open-
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	the group is thinking.
sentence.	When possible, engage
8. Students take turns drawing cards and creating problems.	students in a "teach to learn"
	opportunity and have the



Math V Word for Today: factors Description: The term factor is used to desc multiplication problem to get a product. Some only have 2. For example, 7 has only two fac 36, 2, 18, 3, 12, 3, 9, 6 and 6. Name some of themselves) and some that have more that the Have student complete his/her Vocabulary No 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).	
New Word	My Description	Vocabulary Notebooks can
factors	The numbers you multiply together to get a product.	be made from ½ of a composition book.
Personal Connection	Drawing	
My age is the product of 2 factors: 2 and 5.	2 x 5 = 10	
A Multi	ctivity plication	Focus on having young people "compete" in pairs or
Multiplication and Division are reciprocal as operation is division. This creates families of $6 = 9$ and finally $54 \div 6 = 9$. It is important that for the two papers the antire family. There are	small groups. Once a game is mastered you can utilize it in the "When Homework Is	
 100 division fact problems, but when you lear are really learning about 50. So practicing the Fact Family Go Fish Directions: Divide students into trios Give each trio a deck of Go Fish Fact Fa Shuffle the cards Deal 5 cards to each player and place the 5. Players look for any matches (it takes 4 and 6 ÷ 2 = 3. Player 1 then asks one of the other player a fact family card for 3 x 2 = 6? The spect to the Player asking. 	amily Cards are a fact families makes sense. amily Cards are remainder in the middle cards to match— $3 \times 2 = 6$, $2 \times 3 = 6$, $6 \div 3 = 2$, ers for a fact family match—saying "Do you have confic player asked must give any matching card	Complete" center.
 100 division fact problems, but when you lear are really learning about 50. So practicing the Fact Family Go Fish Directions: Divide students into trios Give each trio a deck of Go Fish Fact Fa Shuffle the cards Deal 5 cards to each player and place the 5. Players look for any matches (it takes 4 and 6 ÷ 2 = 3. Player 1 then asks one of the other player a fact family card for 3 x 2 = 6? The spect to the Player 1 gets a match then he/she mata 8. Player 2 and Player 3 continue in the sa 	are a total of 100 multiplication fact problems and in them as a family, instead of 200 problems you e fact families makes sense. Amily Cards the remainder in the middle cards to match—3 x 2 = 6, 2 x3 = 6, 6 ÷ 3 = 2, ters for a fact family match—saying "Do you have ecific player asked must give any matching card by ask again, if not, then he/she must go fish.	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

- Ask them to comment 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:	Math Fun! #8
Focus:	Multiplication

Materials:

White boardsVocabulary NotebooksCrayolasDouble 9 DominoesActivity at the end of this lesson planSocks (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 guarters. If he buys a game that costs \$9.55 how	*Activity → Teachable Moment(s) <i>throughout</i>		
much money will he have left? How do you know?	During the lesson check in		
Fact Practice	with students repeatedly.		
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	Check in about what is happening and what they are thinking.		
and if possible, laminate for use again in the future.	Take advantage of any teachable moments.		
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	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.		



Addition: 2 + 3 = 5		
Math Voc Math term: quotient Description: The term quotient refers to the ar answer is called the sum; in subtraction the diffe quotient in division. Create an entry for the word quotient in your Vo Vocabulary Notebook Sample: New Word quotient	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	
Personal Connection	Drawing	be made from ½ of a
The quotient of the problem $12 \div 6 = is 2$.	12 ÷ 6 = 2	composition book.
Acti Multiplication and Division are reciprocal action operation is division. This creates families of fance $6 = 9$ and finally $54 \div 6 = 9$. It is important that facts that you learn the entire family. There are 100 division fact problems, but when you learn the are really learning about 50. So practicing the factor	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.	
 Fact Family Go Fish Directions: Divide students into trios Give each trio a deck of Go Fish Fact Fam Shuffle the cards Deal 5 cards to each player and place the fact of the state of the s		



Closing Review Say: • • Dlaw 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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•	•	•	•••













Do not use			
Do not use	$ \begin{array}{c} \bullet \\ \bullet \\$		











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:	Math Fun! #9
Focus:	Multiplication

Materials:

White boards Crayolas Socks (for erasers) Vocabulary Notebooks dice (6-sided and 12-sided for each pair)

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*

	with students repeatedly.	
	Check in about what is happening and what they are thinking.	
four	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	
on	the group is thinking. When possible, engage students in a "teach to learn" opportunity and have the	

student become the teacher.



Math VocabularyWord for Today: divisorDescription: 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.		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
New Word	My Description	(Ex. 4 students creating a right angle multiple students
divisor	Multiplication, product, factor, division, dividend, divisor, quotient	acting out an equation). Vocabulary Notebooks can be made from $\frac{1}{2}$ of a composition book.
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	
Acti Multipl	ivity ication	Focus on having young people "compete" in pairs or small groups. Once a game
The best way to learn your multiplication facts is to practice, practice, practice. The more you practice the easier it gets.		is mastered you can utilize it in the "When Homework Is Complete" center
 Which Is Larger Directions: Divide students into pairs Divide students into pairs Give each pair a deck of cards with the jokers and face cards removed Shuffle the deck and place it in the center of the players Player 1 draws two cards, multiplies the numbers and says the product Player 2 does the same Players then compare the products, the player with the greater product wins the cards Play continues until all of the cards are with one player or until time is called. 		



Closing Review Say: • • 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!) 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:	3 rd Grade
Lesson Title:	Math Fun! #10
Focus:	Multiplication

Materials:

White boardsVocabulary NotebooksCrayolasDeck of cardsSocks (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	*Activity → Teachable Moment(s) <i>throughout</i>	
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.	During the lesson check in with students repeatedly.	
Fact Practice Bump It Up! Add A Zero 1. Divide students into pairs	Check in about what is happening and what they are thinking.	
 Give each pair a white board and a deck of cards (without face cards, jokers, or 10s) The object of this fact practice is to sum numbers until you reach 1.000. 	Take advantage of any teachable moments.	
 Student draws 2 cards, adds the value of the cards together, multiplies by ten and writes the total on the sheet. 	Stop the class and focus on a student's key learning or	
 It is not the other person's turn to do the same When play returns to the first player, the process is repeated, although this time, the totals are added together. 	ended questions to determine what the rest of the group is thinking.	
 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. 	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: dividend		often throughout the day.
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		Complete the Vocabulary notebook for each word.
way: $48 \div 6 = 8$. What is the divided by 6, the half	problems: $72 \div 9$; $14 \div 7$; and $27 \div 3$?	When possible, have students experience the word
Create the entry for the term "dividend" in the Vocabulary Notebook with a peer.		(Ex. 4 students creating a right angle, multiple students
Vocabulary Notebook Sample:	My Description	Vocabulary Notebooks can
		be made from $\frac{1}{2}$ of a
dividend	When you divide, the dividend is the total that you start with	composition book.
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	
Act	ivity	Focus on having young
Multip	lication	people "compete" in pairs or small groups. Once a game
The best way to learn your multiplication facts is to practice, practice, practice. The more you practice the easier it gets.		is mastered you can utilize it in the "When Homework Is Complete" center.
Which Is Larger		
Directions:		
 Divide students into pairs Give each pair a deck of cards with the iol 	kers 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	h 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.		



Closing
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:	3 rd Grade
Lesson Title:	Math Fun!
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?

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:	3 rd Grade
Lesson Title:	Multiplication Facts
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?

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	Take advantage of any teachable moments.	
 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 	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.	
Math Vocabulary	It is important to review	



ber other than 1 nost common . Another mbers you would were skip Share with a ber other 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
on't say every y third number ples of 3.
Focus on having young people "compete" in pairs or small groups. Once a game
ber over and You could do irst five facts is so our tition work we
to the
ng the product.





5. If the student drew this domino, the problem would be 6×3 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/s are completed.	she could get all the blocks

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.



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 Fun! #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:	*Activity → Teachable Moment(s) <i>throughout</i>	
467 + 389 = Write a story to go with it.	During the lesson check in with students repeatedly.	
 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 	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.	



Math Vo Word for today: multiples Description: The term, multiples, refers to the together. For example, the multiples of 3 are numbers by multiplying 3 x 1, 3 x 2, 3 x 3, 3 x of a number allows you to understand how dif common point for the numbers 3 and 4 are 12 know what the multiples are. Review the entry for the word "multiples" in you about the term. Give an example of multiples Vocabulary Notebook Sample: New Word multiples	he number you get when you multiply numbers 3, 6, 9 12, 15, 18, 21. You would get these 4, 3 x 5, 3 x 6, 3 x 7 Knowing the multiples iferent numbers are related. For example a 2, 24, 36 and so on. You can know this if you bur Vocabulary Notebook. Talk with a friend the numbers you get when you multiply by a specific number: 2, 4, 6, 8, 10 are multiples of 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.
Personal Connection	Drawing	
I have socks in multiples of 2.		
Act Multip	ivity lication	Focus on having young people "compete" in pairs or small groups. Once a game
Multiplication Multiplication is repeated addition. It is counting already know how to count by 2's, 5's, and 10 over. In the problem $3 \times 5 =$ you are being as that by saying $3 + 3 + 3 + 3 + 3 = 15$. You council multiples of 3 which are $3, 6, 9, 12, 15$. The answer to 3×5 is 15. The brain can be thinking about other things that we are doing.	ing by numbers like 3, 4, 6, 7, 8, and 9 (you d's). It is adding the same number over and sked to add 3 to itself 5 times. You could do ald also get that by saying the first five the reason we memorize these facts is so our will be involved in the multiplication work we	is mastered you can utilize it in the "When Homework Is Complete" center.
Write several problems on the board and have problems.	e students provide the answer to the	
Product Practice <u>Directions:</u>		
 Divide students into pairs. Give each pair a set of Double 6 or D 	ouble 9 Dominoes.	



 Place dominoes face down between the pair. Player 1 draws a domino and multiplies the dots on either end, saying the product. 	
 If the student drew this domino, the problem would be 6 x 3 for an answer of 18. 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.

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:	3 rd Grade	
Lesson Title:	esson Title: Multiplication—2 digit by 1 digit	
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	*Activity → Teachable Moment(s) <i>throughout</i>
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?	During the lesson check in with students repeatedly. Check in about what is happening and what they are thinking.
Fact Practice	Take advantage of any teachable moments.
 Spokes on a Wheel Divide students into pairs On a white board, student draws a small circle with 9 spokes coming out of it (should look like a bicycle tire) Have students choose to put a 6, 7 or 8 in the center circle Student rolls two dice and adds the pips (dots) 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 Process continues until all spokes have an equation 	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

students experience the word (Ex. 4 students creating a

right angle, multiple students

notebook for each word.

When possible, have

acting out an equation) Vocabulary Notebooks can

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:

What's The Product?

New Word	My Description	be made from ½ of a composition book
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	
Ad Multi Multiplication	ctivity plication	Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it
Learning the multiplication facts makes it ea this:	sier to do multiplication problems that look like	in the "When Homework Is Complete" center
	<u>x 4</u>	
This problem is an example of two digits (the problems like this you first multiply the digits which equals 8 and you write the 8 in the on number, the number in the ones place would in the tens place will be added to the product and the digit in the tens place. In the proble is written because there are no digits in the light of the product of the	e 32) times 1 digit (the 4). When multiplying that are in the ones place, in this case 2×4 es place. (If the product was a two digit d be written in the ones place, and the number at of the multiplier (in the problem above the 4) m above, 4×3 equals 12. The whole number hundreds place.	
	32 <u>x 4</u> 128	
Work through a minimum of 5 problems on t through what you are thinking and ask stude	he board with the students. Be sure to talk ents to help you solve the problems.	

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 sa	ame 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.





1 1

Consult 4 Kids Lesson Plans

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:	Multiplication—2 digits by 1 digit
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 \rightarrow 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	n to the right of the number	
Math Word for Today: repeated addition	Vocabulary	It is important to review academic math vocabulary often throughout the day.
we do in a simplified way to make the proce memorized your multiplication facts. This r thinking. Repeated addition means adding + 3 + 3 + 3 + and so on	reas easier. It is easier to multiplication. It is what neans that you know them automatically, without the same number over and over: $3 + 3 + 3 + 3$	Complete the Vocabulary notebook for each word. When possible, have students experience the word
Review your entry for repeated addition and easier. Vocabulary Notebook Sample:	d explain to a partner why multiplication is much	(Ex. 4 students creating a right angle, multiple students acting out an equation).
New Word	My Description	Vocabulary Notebooks can be made from $\frac{1}{2}$ of a
repeated addition	Add the same number together over and over, 3 + 3 + 3 + 3 + 3 = 3 x 5	composition book.
Personal Connection	Drawing	
Multiplication is really just repeated addition.	<u>3+3+3+3</u>	
A Mult	Activity Siplication	Focus on having young people "compete" in pairs or
Multiplication Learning the multiplication facts makes it ea this:	asier to do multiplication problems that look like 32	is mastered you can utilize it in the "When Homework Is Complete" center.
	<u>x 4</u>	
This problem is an example of two digits (th problems like this you first multiply the digit which equals 8 and you write the 8 in the or number, the number in the ones place wou in the tens place will be added to the produ and the digit in the tens place. In the proble is written because there are no digits in the	times 1 digit (the 4). When multiplying s that are in the ones place, in this case 2×4 nes place. (If the product was a two digit ld be written in the ones place, and the number ct of the multiplier (in the problem above the 4) em above, 4×3 equals 12. The whole number hundreds place.	
	32 <u>x 4</u> 128	
Work through a minimum of 5 problems on	the board with the students. Be sure to talk	

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 s	ame thing in the "real world"?
What advice would you give to a "new" student	t getting ready to do this activity.
Three Whats Ask the following three what questions: What was your key learning for the day? What opportunities might you have to do this so What advice would you give to a "new" student	Debrief ame thing in the "real world"? t 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'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:	Multiplication With Regrouping
Focus:	Multiplication

Materials:		
White boards	Vocabulary Notebooks	
Crayolas	Deck of Cards for each pair	
Activity at the end of this lesso	on plan Socks (use as erasers	3)

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	*Activity → Teachable Moment(s) <i>throughout</i>
Josh collected 1,567 cans. Mark collected 1,672 cans. How many cans did they collect together? How do you know?	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.
 Place the cards face up in a TicTac Toe Grid 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 the target number. Students may add or subtract.	ended questions to determine what the rest of the group is thinking
 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. 	When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.
 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 o	f the game win	
Math Vo Word for today: regrouping Description: Regrouping is a mathematical ten a total that is more ones, tens, hundreds, etc. th than nine, the part of the number that is in the ter MUST be moved to that column. Review your Vocabulary Notebook for the term friend.	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	
New Word	My Description	acting out an equation).
regroup	Getting digits in a math problem to be in the place value column correctly	Vocabulary Notebooks can be made from ½ of a composition book.
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	
Actine Multiplication Learning the multiplication facts makes it easier this: 3. <u>x - 1</u>	i vity to do multiplication problems that look like 4 <u>4</u>	Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.
This problem is an example of two digits (the 34 problems like this you first multiply the digits that equals 16 and you write the 6 in the ones place number in the ones place is written in the ones the tens place (in this case a 1) will be added to above the 4) and the digit in the tens place. In you must ADD the 1 from the 16, which is addire there are no digits in the hundreds place.	4) times 1 digit (the 4). When multiplying at are in the ones place, in this case 4 x 4 . Since the product is a two digit number, the place, (in this case the 6) and the number in the product of the multiplier (in the problem the problem above, 4 x 3 equals 12. To the 12 ng 1 ten. The whole number is written because	
<u>x</u> 1	34 <u>4</u> 36	
Work through a minimum of 5 problems on the through what you are thinking and ask students that the number in the 10s place (from the multi #, not a multiplication number.	board with the students. Be sure to talk to help you solve the problems. Remember plication of the digits in the ones place) is a +	
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.



- 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:	Multiplication—Regrouping
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) <i>throughout</i>
Jordan needs to solve the problem 534 + 92 + 509. What is the sum? How do you know?	During the lesson check in
Fact Practice Number Hunt 1. Divide students into pairs	Check in about what is happening and what they are thinking.
 Each pair needs a Number Hunt sheet (attached to this lesson plans) Player rolls two, 12-sided dice. 	Take advantage of any teachable moments.
 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 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.
Math Vocabulary	It is important to review academic math vocabulary



Word for Today: product		often throughout the day.
Description: The term product is used to de	Complete the Vocabulary	
2 numbers together. The product of 3×4 is 1 \times 22	When possible, have	
Review your entry for the term product in you	r Vocabulary Notebook Discuss the term with a	students experience the word
peer. Talk about what happens if you need to	regroup in writing the product.	(Ex. 4 students creating a
		right angle, multiple students
Vocabulary Notebook Sample:		acting out an equation).
New Word	My Description	be made from ½ of a
product	When you multiply numbers you end up with	composition book.
P.01201	a product as the answer.	
Personal Connection	Drawing	
The product of 23 x 4 = 92.	92	
<u> </u>		Focus on having young
Multi	plication	people "compete" in pairs or
		small groups. Once a game
Multiplication	or to do multiplication problems that look like	in the "When Homework Is
this:		Complete" center.
	34	
<u>></u>	<u>x 4</u>	
This problem is an example of two digits (the problems like this you first multiply the digits the equals 16 and you write the 6 in the ones place number in the ones place is written in the one the tens place (in this case a 1) will be added above the 4) and the digit in the tens place. If you must ADD the 1 from the 16, which is added there are no digits in the hundreds place.	34) times 1 digit (the 4). When multiplying hat are in the ones place, in this case 4×4 ce. Since the product is a two digit number, the s place, (in this case the 6) and the number in to the product of the multiplier (in the problem n the problem above, 4×3 equals 12. To the 12 ding 1 ten. The whole number is written because	
	34	
	<u>x 4</u> 136	
	100	
Work through a minimum of 5 problems on th through what you are thinking and ask studer that the number in the 10s place (from the mu #, not a multiplication number.	e board with the students. Be sure to talk ts to help you solve the problems. Remember Iltiplication of the digits in the ones place) is a +	



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.
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

Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Multiplication—Regrouping
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 6? What are the multiples of 3?

Content (the "Meat")

*Activity → Teachable Moment(s) *throughout*

During the lesson check in with students repeatedly.

happening and what they are

Stop the class and focus on a

Check in about what is

Take advantage of any

student's key learning or

understanding. Ask open-

determine what the rest of

teachable moments.

ended questions to

the group is thinking.

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

thinking.

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.


Math V Word for Today: factors Description: The term factor is used to desc multiplication problem to get a product. Some only have 2. For example, 7 has only two fac 36, 2, 18, 3, 12, 3, 9, 6 and 6. Name some of themselves) and some that have more that the Review your entry of the term "factors" in you the term "factors". Write several multiplication 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).	
New Word	My Description	be made from ½ of a
factors	The numbers you multiply together to get a product.	composition book.
Personal Connection	Drawing	
My age is the product of 2 factors: 2 and 5.	- <u>2 x 5</u> = 10	
A Multi	Focus on having young people "compete" in pairs or small groups. Once a game	
Multiplication Learning the multiplication facts makes it eas this:	is mastered you can utilize it in the "When Homework Is Complete" center.	
3 <u>×</u>		
This problem is an example of two digits (the problems like this you first multiply the digits fequals 16 and you write the 6 in the ones planumber in the ones place is written in the one the tens place (in this case a 1) will be added above the 4) and the digit in the tens place. If you must ADD the 1 from the 16, which is additioned there are no digits in the hundreds place.		
3 <u>×</u> 13		
Work through a minimum of 5 problems on the through what you are thinking and ask studer that the number in the 10s place (from the mu #, not a multiplication number.		

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.

	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 s	same thing in the "real world"?
What advice would you give to a "new" studer	t 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.





 $3^{\mbox{\tiny rd}}$ Grade Rolling Along Game Board

Finish 🕹					
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		1		1	



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

Materials:			
White boards	Vocabulary	Notebooks	dice
Crayolas	Double 9 D	ominoes	
Activity at the end of this le	esson 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 3 rd graders, 86 4 th graders, and 74 5 th graders. If the P.E. teacher	*Activity → Teachable Moment(s) <i>throughout</i>				
know?	with students repeatedly.				
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.	Check in about what is happening and what they are thinking. Take advantage of any teachable moments.				
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	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.				
Addition: $2 + 3 = 5$	When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.				

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Math Vo Math term: digit Description: The term digit refers to a symbol numeral. There are only 10 digits in our numbe arrange these digits you can create any numbe Create an entry for the word digit in your Vocat Vocabulary Notebook Sample: New Word	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).	
digit	The symbols we use to make numbers.	be made from $\frac{1}{2}$ of a
Personal Connection	Drawing	
3,892 is a four digit number.	0, 1, 2, 3, 4, 5, 6, 7, 8, 9	
Act Multiplication Learning the multiplication facts makes it easie this: 3 X This problem is an example of two digits (the 3- problems like this you first multiply the digits the equals 16 and you write the 6 in the ones place number in the ones place is written in the ones the tens place (in this case a 1) will be added to above the 4) and the digit in the tens place. In you must ADD the 1 from the 16, which is addin there are no digits in the hundreds place.	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 <u>x</u> 13 Work through a minimum of 5 problems on the		
through what you are thinking and ask students that the number in the 10s place (from the mult #, not a multiplication number.		
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.

	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 s	ame 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

	••	

	••	•	
•	•	•	•••













Do not use			
Do not use	$ \begin{array}{c} \bullet \\ \bullet \\$		











 $3^{\mbox{\tiny rd}}$ Grade Rolling Along Game Board

Finish 🕹					
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		1		1	



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

Materials:

White boards Crayolas Socks (for erasers) Vocabulary Notebooks dice (6-sided and 12-sided for each pair)

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

ended questions to

the group is thinking.

When possible, engage

students in a "teach to learn" opportunity and have the student become the teacher.

understanding. Ask open-

determine what the rest of



Math Vo Word for Today: divisor Description: The term divisor refers to the nu problem 48 divided by 6, the divisor is 6. This 48 ÷ 6 =. What is the divisor in the following pu Review the entry in your Vocabulary Notebook word and what it means.	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				
New Word	My Description	acting out an equation).			
divisor	Multiplication, product, factor, division, dividend, divisor, quotient	Vocabulary Notebooks can be made from ½ of a composition book.			
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				
Act	Focus on having young				
Division Division is the reciprocal of multiplication. Multi together. Division is about taking a total and p accomplished by repeated subtraction, taking t make another equal group. In a division proble that is divided into the total (the dividend) is cal quotient.	people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.				
Division problems can be written in two ways:					
$15 \div 3 = 5$ Or 5 3 15					
Work several division problems on the board w divide them into different numbers of rows that 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.

C	Closing		
F	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 g	etting 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 个		1			





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

Materials:	
White boards	Vocabulary Notebooks
Crayolas	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						*Activity → Teachable Moment(s) <i>throughout</i>	
You are If you le	You are booking a reservation for a plane trip to San Francisco. You will be gone for 3 weeks. If you leave on the 5^{th} of the month, what day will you come home?					an Francisco. You will be gone for 3 weeks. you come home?	During the lesson check in with students repeatedly.	
S	М	T	W	T	F	S		Check in about what is happening and what they are
	1	2	3	4	5	6		thinking.
7	8	9	10	11	12	13		Take advantage of any
14	15	16	17	18	19	20	4	teachable moments.
21	22	23	24	25	26	27	-	Stop the class and focus on a
28 29 30 student							student's key learning or	
	Fact Practice understanding. Ask open-						understanding. Ask open-	
4	Bump It Up! Add A Zero ended questions to							ended questions to
1.	DIVID	e stude	nts into	pairs				determine what the rest of
2. Give each pair a white board and a deck of cards (without face cards, jokers, or 10s)							the group is thinking.	
3. The object of this fact practice is to sum numbers until you reach 1,000.						When possible, engage		
 Student draws 2 cards, adds the value of the cards together, multiplies by ten and writes the total on the sheet. 						students in a "teach to learn" opportunity and have the		
5.	5. It is not the other person's turn to do the same 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 Vor Word for Today: dividend Description: The term dividend refers to the n dividend represent the total number that you ha groups. In the problem 48 divided by 6, the nur way: 48 ÷ 6 = 8. What is the dividend in these Review the entry for the term "dividend" in the V knowing what this term means could help you in Vocabulary Notebook Sample: New Word dividend	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.				
Personal Connection I have 96 cupcakes that I am dividing between 24 people; each one will get 4. 96 is the dividend in my problem.	Drawing $96 \div 24 = 4$				
Actin Division Division is the reciprocal of multiplication. Multi- together. Division is about taking a total and pu- accomplished by repeated subtraction, taking the make another equal group. In a division proble- that is divided into the total (the dividend) is call- quotient. Division problems can be written in two ways: $15 \div 3 = 5$ Or 5 3 $\boxed{15}$	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 se divide ti student	everal division problems on the board with students. Have the group stand up and nem into different numbers of rows that each have 3, 4, or 5 students. This will help s understand what division is.	
Divide	lt	
Direction	ons:	
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 ↑

Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Math Fun!
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 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	
ay:			
•	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.



teams

S



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Regrouping
Focus:	Addition

Materials:White boardsDecks of cardsDominoes (Double 9)CrayolasVocabulary NotebooksSocksActivity 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) <i>throughout</i>	
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. 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 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.	
Math Vocabulary Word for Today: addend	It is important to review academic math vocabulary	



often throughout the day. **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), Complete the Vocabulary and the tal in that column is ten or more, you must regroup, taking the number in the tens notebook for each word. column to the column to the left and writing the numeral in the ones place underneath the When possible, have column you are adding. students experience the word Review the entry in your Vocabulary Notebook for the term "addend". Share with a friend (Ex. 4 students creating a what the term means. Give an example. right angle, multiple students Vocabulary Notebook Sample: acting out an equation). New Word My Description Vocabulary Notebooks can be made from 1/2 of a composition book. addend the numbers you add together in an addition problem Personal Connection Drawing In the addition problem, 6 + 9 = 15, the 2 + 4 = 16 digits 6 and 9 are the addends Activity Focus on having young people "compete" in pairs or Regrouping small groups. Once a game is mastered you can utilize it Addition in the "When Homework Is When you are adding, sometimes you will need to regroup. This means that the answer or Complete" center. 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.



 Player 2 continues in the same way. Play is complete when all cards have been used. 	
$\bullet \bullet \bullet \bullet \bullet \bullet$	
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
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 *Activity \rightarrow Teachable Last year the Little League Baseball Team raised \$3,450 for rebuilding the team dugout. Moment(s) *throughout* This year they raised \$4,275 for rebuilding the opposing team's dugout. If the price has During the lesson check in remained the same, how much do they have left for trophies? with students repeatedly. Fact Practice Check in about what is Fore-header happening and what they are thinking. 1. Divide students into trios. Give each trio a deck of cards without face cards and jokers. Take advantage of any 2. Shuffle the deck and give all of the cards to the referee who will be "judging" the contest teachable moments. 3. On go, players are each handed a card by the referee and WITHOUT looking, put the card Stop the class and focus on a face out on his/her forehead student's key learning or 4. The referee adds the two numbers together and states the answer understanding. Ask open-5. Each player looks at the other person's exposed number and names his/her own number ended auestions to 6. Person who wins (accuracy and time), collects both cards determine what the rest of 7. Play continues until all cards are gone. the group is thinking. 8. Players can repeat play (if there is another time) with each other so each has an When possible, engage opportunity to be both a player and referee 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

right angle, multiple students acting out an equation).

notebook for each word.

(Ex. 4 students creating a

When possible, have

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:

	I Vocabulary Notebooks can	
New Word regroup	My Description when the total is ten or higher, you regroup to finish addition	be made from ½ of a composition book.
Personal Connection	Drawing	
27 + 18 requires that you regroup to get the correct sum of 45.	48 <u>+9</u> 57	
Acti	Focus on having young	
Addition When you are adding, sometimes you will nee sum of two numbers is more than ten. For example, and the source of the s	people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.	

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:

64 <i>1</i>
+396

- 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	*Activity → Teachable Moment(s) <i>throughout</i>	
lf the s two nu	um of two numbers is 138, and one number is 32 more than the other, what are the mbers?	During the lesson check in with students repeatedly.	
? + ? = 138		Check in about what is happening and what they are	
	Fact Practice	thinking.	
Spokes on a Wheel		Take advantage of any teachable moments.	
2.	On a white board, student draws a small circle with 9 spokes coming out of it (should look like a bicycle tire)	Stop the class and focus on a student's key learning or	
3.	Have students choose to put a 6, 7 or 8 in the center circle	understanding. Ask open-	
4.	Student rolls two dice and adds the pips (dots)	determine what the rest of	
5.	Taking this total, student writes a math problem on one of the spokes (eg. 7 is in	the group is thinking.	
	the circle and students rolls a 3 and 5 which totals 8. The spoke equation would look like 7 + 8 = 15	When possible, engage students in a "teach to learn"	
6.	Process continues until all spokes have an equation	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

right angle, multiple students

notebook for each word.

(Ex. 4 students creating a

When possible, have

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:	ry Notebook Sample:		
New Word subtraction	My Description minus or take away	Vocabulary Notebooks can be made from ½ of a composition book	
Personal Connection	Drawing		
Subtraction reduces a number by another number.	52 <u>-37</u> 15		
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.		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	
i or example.	678 - <u>325</u>		
You would begin by subtracting 5 from 8, ge 2 from 7, so now you are at 53. Finally you v difference of 353. Work several problems on the board with stu When you are pleased with the results, then	ting a difference of 3. You would then subtract vill subtract the 3 from the 6, making the dents. Be sure to talk through each program. give the students a game to play.		
 Connect the Dots #1 <u>Directions:</u> Give each pair of students a Connect the game board, laminate it or place Working together, students complete problem to the correct answer. Students will be able to see a pattern When pair is finished have them share 	et the Dots game Board. If you want to keep it in a sheet protector. If the subtracting problem and connect the In emerge. In emerge.		



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:	3 rd Grade
Lesson Title:	Connect the Dots #2
Focus:	Subtraction

Materials:

White boardsVocabulary NotebooksCrayolasdiceSocks (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	*Activity → Teachable Moment(s) <i>throughout</i>		
numbers to use.	During the lesson check in with students repeatedly.		
In Out Out Fact Practice	Check in about what is happening and what they are thinking.		
Addition Ladder1. Give each student a white board (include marker or crayola)	Take advantage of any teachable moments.		
2. Student should draw a ladder like the one below	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.		
3. Have student roll 2 dice, total the pips and then add that number to each of the			



It is important to review academic math vocabulary

often throughout the day.

Complete the Vocabulary

students experience the word

right angle, multiple students

Vocabulary Notebooks can

notebook for each word.

(Ex. 4 students creating a

acting out an equation).

When possible, have

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	be made from ½ of a composition book.
subtraction	minus or take away	
Personal Connection	Drawing	
Subtraction reduces a number by another number.	52 <u>-37</u> 15	
Ac Subt	tivity raction	Focus on having young people "compete" in pairs or
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.		small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.
·	678 - <u>325</u>	
You would begin by subtracting 5 from 8, get 2 from 7, so now you are at 53. Finally you v difference of 353. Work several problems on the board with stu When you are pleased with the results, then	ting a difference of 3. You would then subtract vill subtract the 3 from the 6, making the dents. Be sure to talk through each program. give the students a game to play.	
Connect the Dots #2 <u>Directions:</u> 1. Give each pair of students a Connect the game board, laminate it or place 2. Working together, students complete problem to the correct answer. 3. Students will be able to see a pattern	et the Dots game Board. If you want to keep it in a sheet protector. If the subtracting problem and connect the	

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 #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 less	on plan Socks (use as e	rasers)

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			*Activity → Teachable Moment(s) <i>throughout</i>
Look at the bus schedule below. Does it take longer to get to LA or San Francisco?			During the lesson check in with students repeatedly.
To Depart	ts Arrives		Check in about what is
Los Angeles 8:00 a.	.m. 12:30 p.m.		happening and what they are
San Francisco 9:00 a.	.m. 3:00 p.m.		thinking.
Fresno 8:30 a.	.m. 11:30 a.m.		Take advantage of any
Fact Practice			teachable moments.
 Target 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 Turn up a 10th card which will be to the side and becomes the target number (aces count as 1) 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. Each card may be used only one time in the equation 		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.	



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		It is important to review
Word for today: regrouping		academic math vocabulary
Description: Regrouping is a mathematical term that describes what you do when you have		often throughout the day.
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		notebook for each word.
allows you to translate tens into ones (like dimes into pennies), and hundreds into tens.		When possible, have
Review your Vocabulary Notebook for the term regrouping. Discuss this process with your		students experience the word
friend. Vessehulery Netsback Sempley		(Ex. 4 students creating a
Vocabulary Notebook Sample:	ew Word My Description acting out an equation).	
		Vocabulary Notebooks can
regroup	Getting digits in a math problem to be in the	be made from ½ of a
	place value column correctly	composition book.
Personal Connection	Drawing	
When you subtract 81- 37, you must	81	
regroup making the units 11 and the tens /	$\frac{-37}{44}$	
Activity		Focus on having young
Subtraction		people "compete" in pairs or
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		small groups. Once a game
the tens, and instead of keeping the ten items as a group you separate them into ones. For		in the "When Homework Is
example, if you needed 8 items and you only ha	ad a package of 10, you would need to open up	Complete" center.
the package of ten so you could take out 8 of the single units. As another example, if you		
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		
Domino Subtraction		
<u>Directions:</u>		
 Give each pair a set of Double 9 dominoes and white boards. 		
3. Player 1 draws 2 dominoes and create		




	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:	Domino Subtraction
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?

Content (the "Meat")						
Problem of the Day	*Activity → Teachable Moment(s) <i>throughout</i>					
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.	During the lesson check in with students repeatedly.					
Fact Practice Fact Practice Number Hunt 1 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.	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					



It is important to review academic math vocabulary

often throughout the day.

Complete the Vocabulary

students experience the word

right angle, multiple students

(Ex. 4 students creating a

notebook for each word.

When possible, have

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:	acting out an equation).		
New Word regroup	Vocabulary Notebooks can be made from ½ of a composition book.		
Personal Connection	Drawing		
When you subtract 81- 37, you must regroup making the units 11 and the tens 7 before you subtract.	81 <u>-37</u> 44		
Act Subtraction Subtraction When you are subtracting, you begin with the of greater than the top digit, you will need to regreate the tens, and instead of keeping the ten items a example, if you needed 8 items and you only has the package of ten so you could take out 8 of th needed 8 single items and you only had four, you separated, you would have the ten you separate have a total of 10 units plus 4 units from which would have 6 units left over. Work several 2 digit subtract subtraction proble board with the group. Use metacognition to she you solve the problem. Domino Subtraction Directions: 1. Divide student into pairs. 2. Give each pair a set of Double 9 domin 3. Player 1 draws 2 dominoes and create	ivity action ones or units column first. If the bottom digit is oup. Regrouping means that you take one of as a group you separate them into ones. For ad a package of 10, you would need to open up he single units. As another example, if you ou would still need to break apart a ten. Once red + the 4 you already had, so you would now you would subtract the 8 you needed, so you ems that require the student to regroup on the are with the student what you are thinking as noes and white boards. s a subtraction problem:	Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.	





	Closing			
	Review			
Sav:				
ody.				
 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:	Math Magic
Focus:	Addition and Subtraction

Materials:			
White boards	Vocabulary Notebooks	dice	
Crayolas	deck of cards, no face cards or joker	rs for math fact prac	tice
Activity at the end of the lesso	on plan Socks (use as erase	ers)	

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?	*Activity → Teachable Moment(s) <i>throughout</i> During the lesson check in					
Fact Practice	with students repeatedly.					
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. Shuffle the deck 	Take advantage of any teachable moments.					
 Online 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 open- ended questions to determine what the rest of the group is thinking. When possible, engage students in a "teach to learn"					
	student become the teacher.					



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Math Vo Word for Today: reciprocal operations Description: The term "reciprocal operations" each other such as completing one operation to Addition and subtraction are reciprocal operation subtraction you start with a total and then find to Enter the term "reciprocal operations" in your V what this term means to you. Vocabulary Notebook Sample: New Word reciprocal operations	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.	
Personal Connection	Drawing	
Addition is a reciprocal operation to subtraction		
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. 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 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 asy 3 - 2 = 1 + 6		people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

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 s	ame thing in the "real world"?
What advice would you give to a "new" studen	t 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.





3 rd Gi	rade Math Magi	C			
	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



Grade Level: 3 rd Grade	
Lesson Title: Math Magic	
Focus: Addition and Subtra	ction

Materia	ls:		
White b	oards	Vocabulary Notebooks	dic
Crayola	S	Double 9 Dominoes	
Activity	at the end of this lesso	on 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 x 3 = 15 5 x 9 = 45 7 x 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

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*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.

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Addition: 2 + 3 = 5		
Math Vo Math term: reciprocal operations Description: The term "reciprocal operations" each other such as completing one operation to Addition and subtraction are reciprocal operation subtraction you start with a total and then find t Enter the term "reciprocal operations" in your V what this term means to you. Create an entry for the word digit in your Vocab Vocabulary Notebook Sample: New Word	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.	
reciprocal operations addition – subtraction, multiplication - division		
Personal Connection Addition is a reciprocal operation to subtraction		
Act Addition and Addition and Subtraction Addition and Subtraction are reciprocal mathen for a total of two or more groups; in subtraction take a portion of the total. Being able to go bac comfortably is important. To find if you have correctly done an addition p subtrahend, subtracting one of the addends, ar subtraction, you will add the difference and the Today we are going to practice moving betwee numbers. Math Magic <u>Directions:</u> 1. Divide students into groups of 3. 2. Give each group of 3 a Math Magic gas students a white board and game token student a small piece of different colore they tear off a small piece when they n	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.	



have to keep track of small pieces.)

- 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 s	ame thing in the "real world"?
What advice would you give to a "new" studen	t 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

White boards Vocal	oulary 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.	*Activity → Teachable Moment(s) <i>throughout</i> During the lesson check in		
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	with students repeatedly. Check in about what is happening and what they are thinking. Take advantage of any		
members: 9 + 4 = 13 4 + 9 = 13 13 - 9 = 4 13 - 4 = 9 Students should roll 2 dice and create a Eact Family by writing the members of the family on	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 white board. Student should roll a total of 5 times, creating 5 Fact Families	the group is thinking. When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.		



Math Vo Word for Today: minuend Description: The term minuend refers to the r number that an amount will be taken from. The the subtrahend and the difference will be small Review the entry in your Vocabulary Notebook about this word and what it means. Vocabulary Notebook Sample: New Word minuend Personal Connection	cabulary number in a subtraction problem that is the e minuend if the largest of the 3 numbers. Both er. for the term subtrahend. Talk with a peer My Description 614 – 326 = Drawing	It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation). Vocabulary Notebooks can be made from ½ of a composition book.
In the problem 58 – 23, the 58 is the minuend.	16 – 8 = 8	
Act Addition and Subtraction Addition and Subtraction are reciprocal mathem for a total of two or more groups; in subtraction take a portion of the total. Being able to go bac comfortably is important. To find if you have correctly done an addition p subtrahend, subtracting one of the addends, ar subtraction, you will add the difference and the Today we are going to practice moving betwee numbers.	Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.	
 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:
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 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:	+ or -
Focus:	Addition and Subtraction

Materials:	
White boards	Vocabulary Notebooks
Crayolas	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	*Activity → Teachable Moment(s) <i>throughout</i>	
Look at the table below.Is the rule, "multiply by two?"How do you know?In45678	During the lesson check in with students repeatedly.	
Out 16 20 24 28 32	Check in about what is	
Fact Practice Bump It Up! Add A Zero	thinking.	
 Divide students into pairs Give each pair a white board and a deck of cards (without face cards jokers or 10s) 	Take advantage of any teachable moments.	
 The object of this fact practice is to sum numbers until you reach 1,000. Student draws 2 cards, adds the value of the cards together, multiplies by ten and writes the total on the sheet. 	Stop the class and focus on a student's key learning or understanding. Ask open-	
 It is not the other person's turn to do the same When play returns to the first player, the process is repeated, although this time, the totals are added together. 	ended questions to determine what the rest of the group is thinking.	
 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 	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		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)
minuend	614 − 326 =	Vocabulary Notebooks can be made from ½ of a composition book.
Personal Connection In the problem 58 – 23, the 58 is the minuend.	Drawing ↓ 16 – 8 = 8	
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.		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.
 Addition or Subtracting <u>Directions:</u> Divide students into pairs. Give each pair a deck of cards, remove the face cards, tens, and jokers, and a white board and 1 6-sided die. Shuffle the cards and place them face down in between the students. Player one draws six cards. 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 <u>-396</u>	

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 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 Fun!
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 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?

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.



teams



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) <i>throughout</i>	
Look at the table below. What is the rule?	During the lesson check in with students repeatedly.	
In 4 5 6 7 8 Out 12 15 18 21 24	Check in about what is happening and what they are	
 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 	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"	
 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 	opportunity and have the student become the teacher.	
Math Vocabulary Word for Today: geometry	It is important to review academic math vocabulary often throughout the day.	



Description: Geometry is a type of mathemal shapes, both plane (two-dimensional) and sol about lines, squares, and triangles to name a cylinders, and prisms. Enter the term Geometry in your Vocabulary N means. Give an example. Vocabulary Notebook Sample: New Word geometry 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.	
Act Geor	ivity netry	Focus on having young people "compete" in pairs or
Geometry Attributes are a property of an object or a pers it has such as size, shape or color. When we can also talk about angles, sides, right angles	small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.	
Talk with students about the different types of shape of a capital L. Ask them to identify object Explain that angles can also be smaller or close further apart than a right angle. Ask them to be is 1:00 the hands form an angle smaller than a larger than a right angle. What hour times on children to share what shape doesn't have an		
Today students are going to look at several sh in term of sides, angles, and right angles.		
 Attributes of Shapes <u>Directions:</u> Divide students into pairs. Give each pair a set of shape cards a Shuffle the cards and place them face Working together, pair draws a card, if on the attributes listed. When students finish they need to loc attributes of those items, using the ch When finished, pair should share the 		



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

- Ask them to comment 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





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?	*Activity → Teachable Moment(s) <i>throughout</i>		
Fact Practice	with students repeatedly.		
 Fore-header 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 referee who will be "judging" the contest On go, players are each handed a card by the referee and WITHOUT looking, put the card face out on his/her forehead The referee adds the two numbers together and states the answer Each player looks at the other person's exposed number and names his/her own number Person who wins (accuracy and time), collects both cards 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 	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.		



Math Vo	cabulary	It is important to review
Word for Today: geometry Description: Geometry is a type of mathema shapes, both plane (two-dimensional) and sol about lines, squares, and triangles to name a cylinders, and prisms. Enter the term Geometry in your Vocabulary I means. Give an example. Vocabulary Notebook Sample: New Word	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	
geometry Personal Connection I like geometric designs on books.	Drawing	composition book.
Activity Geometry Geometry Activity 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		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
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.
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





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:	Perimeter
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	*Activity → Teachable Moment(s) <i>throughout</i>
Write a probler	multiplication problem that has a product of 36. Then write a story that matches the n you have written.	During the lesson check in with students repeatedly.
	? x ? = 36	Check in about what is happening and what they are
	Fact Practice	umrking. Taka advantasa af any
Fore-h	eader	teachable moments.
1. 2	Divide students into trios. Give each trio a deck of cards without face cards and jokers.	Stop the class and focus on a
۲. ۲	Shuffle the deck and give all of the cards to the referee and WITHOUT looking, but the card	student's key learning or
0.	face out on his/her forehead	understanding. Ask open-
4.	The referee adds the two numbers together and states the answer	determine what the rest of
5.	Each player looks at the other person's exposed number and names his/her own number	the group is thinking.
6.	Person who wins (accuracy and time), collects both cards	When possible, engage
7.	Play continues until all cards are gone.	students in a "teach to learn"
8.	Players can repeat play (if there is another time) with each other so each has an	opportunity and have the
	opportunity to be both a player and referee	student become the teacher.



Math Vo	cabulary	It is important to review
Word for Today: perimeter	academic math vocabulary	
Description: The term perimeter refers to the You start at one spot and measure all the way perimeter of a circle you would call it the circu	Complete the Vocabulary notebook for each word.	
Create an entry for the term "perimeter" in you Vocabulary Notebook Sample:	r Vocabulary Notebook. Share with a peer.	When possible, have students experience the word
New Word perimeter	My Description the distance around a flat shape	(Ex. 4 students creating a right angle, multiple students acting out an equation)
Personal Connection	Drawing	be made from $\frac{1}{2}$ of a composition book
What is the perimeter of your yard?		
Act	ivity	Focus on having young
Perin Perimeters The perimeter of a geometric shape is the dis spot (corner) and then add all the measureme	neters tance around the shape. You start at one ents together. 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
4 ft.		
2 ft. 2 ft.		
So, if you started at the black dot you would c Draw several different shapes on the board, la the perimeters of each of the items. Have chi understanding at the board.	reate this problem: $4 + 2 + 4 + 2 = 12$ feet. abeling the sides (don't draw a circle), and find ldren help by coming up and demonstrating	
Show students how to roll the sides of a recta roll them. It the dice rolled are a 3 and a 4, yo 3 squares by 4 squares.	ngle or a square. Take two 6-sided dice and ou will create a rectangle on grid paper that is	
If you started at the corner and counted the so $+ 3 + 4 + 3 = 14$ squares. Students will want to number sentence to show the addition of each for each rectangle.	quares you would create a problem that was 4 to roll the dimension of the rectangle, create a n of the sides, and then record the perimeter	
Roll A Rectangle <u>Directions:</u> 1. Divide students into pairs.		



- 2. Give each pair a sheet of graph paper (attached to this lesson plan), and two 6sided 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.

- 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:	Perimeter
Focus:	Geometry

Materials:

White boardsVocabulary NotebooksCrayolasdiceSocks (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	*Activity → Teachable Moment(s) <i>throughout</i>
session, how much money does the skating rink earn? How do you know you are right?	During the lesson check in with students repeatedly.
 Addition Ladder 1. Give each student a white board (include marker or crayola) 2. Student should draw a ladder like the one below 	Check in about what is happening and what they are thinking. Take advantage of any
	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.
 2 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 	When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.

Γ



Math Ve Word for Today: perimeter Description: The term perimeter refers to the You start at one spot and measure all the war perimeter of a circle you would call it the circle Create an entry for the term "perimeter" in you Vocabulary Notebook Sample: New Word	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).				
Personal Connection What is the perimeter of your yard?	Drawing	Vocabulary Notebooks can be made from ½ of a composition book.			
Ac Perimeters The perimeter of a geometric shape is the dis spot (corner) and then add all the measurem 4 ft. 2 ft. 4 ft. So, if you started at the black dot you would a Draw several different shapes on the board, the perimeters of each of the items. Have ch understanding at the board. Show students how to roll the sides of a rectar roll them. It the dice rolled are a 3 and a 4, yr 3 squares by 4 squares. If you started at the corner and counted the st + 3 + 4 + 3 = 14 squares. Students will want number sentence to show the addition of each for each rectangle.	tivity meters stance around the shape. You start at one ents together. For example: create this problem: 4 + 2 + 4 + 2 = 12 feet. labeling the sides (don't draw a circle), and find ildren help by coming up and demonstrating angle or a square. Take two 6-sided dice and ou will create a rectangle on grid paper that is equares you would create a problem that was 4 to roll the dimension of the rectangle, create a sch of the sides, and then record the perimeter	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.			
Roll A Rectangle					

Directions:

- 1. Divide students into pairs.
- 2. Give each pair a sheet of graph paper (attached to this lesson plan), and two 6sided 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 s	ame thing in the "real world"?
What advice would you give to a "new" student	t 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 Roll a Rectangle Grid Paper



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Area
Focus:	Geometry

White boardsVocabulary NotebooksDominoesCrayolasDeck of Cards for each pairActivity at the end of this lesson planSocks (use as erasers)	Materials:							
Crayolas Deck of Cards for each pair Activity at the end of this lesson plan Socks (use as erasers)	White boards	Vocabulary	/ocabulary Notebooks					
Activity at the end of this lesson plan Socks (use as erasers)	Crayolas	Deck of Car	ds for each pair					
	Activity at the end of this lesso	n plan	Socks (use as erasers	6)				

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	*Activity → Teachable Moment(s) <i>throughout</i>
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?	During the lesson check in with students repeatedly.
Fact Practice	happening and what they are thinking.
Target 1. Divide students into trios	Take advantage of any teachable moments.
 Each trio needs a deck of cards without face cards and jokers Place the cards face up in a TicTac Toe Grid 	Stop the class and focus on a student's key learning or
4. Turn up a 10 ^{uii} card which will be to the side and becomes the target number (aces count as 1)	ended questions to
 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. 	the group is thinking.
 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 4. 	students in a "teach to learn" opportunity and have the student become the teacher.
 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 e	nd of the game win	
Math 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 These two shapes have the same area of 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.	
Enter the term area into your Vocabulary N	otebook. Discuss your entry with your friend.	
Vocabulary Notebook Sample:	My Description	
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	
AreaArea tells you the size of a surface. It defin flat, 2-dimensional object such as a rectang Look at the following shapes:12345678912345678912345678912345678912349912349912345678999	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:	
• F	Please recap what we did today.
• [Did we achieve our objectives?
	Debrief
Three V	Vhats
Ask the f	ollowing 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 Many Squares? #1





Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Area
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 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.



Math	It is important to review	
Word for today: area	academic math vocabulary	
Description: Area is a mathematical term t	Complete the Veesbulary	
You count area in square units.	notebook for each word	
	When possible, have	
4 5 6		students experience the word
7 8 9		(Ex. 4 students creating a
		right angle, multiple students
7		acting out an equation).
1 3 5 8		Vocabulary Notebooks can
2 4 6 9		composition book
These two shapes have the same area of 9	even though they do not look the same.	
Revisit the term area into your Vocabulary N	Notebook. Discuss your entry with your friend.	
Vocabulary Notebook Sample:		
New Word	My Description	
0700	the number of equare units on a surface	
alea		
Personal Connection	Drawing	
	2	
What is the area of the yard?	1 2 3	
	4 5 6	
	7 8 9	
	Activity	Focus on having young
	Area	people "compete" in pairs or
Area	7104	small groups. Once a game
Area tells you the size of a surface. It define	es the amount of space inside the boundary of a	is mastered you can utilize it
flat, 2-dimensional object such as a rectang	le or a square.	In the "When Homework Is
Look at the following shapes:		Complete Center.
]	
1 2 3		
4 5 6		
7 8 9		
1 2 3 4		
5 6 7 8		
9		



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.

c	Closing
F	Review
Say:	
Please recap what we did today.	
 Did we achieve our objectives? 	
C C	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 san	ne thing in the "real world"?
What advice would you give to a "new" student g	etting 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 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	or math fact practice
Activity at the end of the lesso	on 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) <i>throughout</i>		
$\Box \div \Delta = 12$	During the lesson check in with students repeatedly.		
O x 9 = □	Check in about what is happening and what they are thinking.		
Fact Practice	Take advantage of any		
Draw!	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. 	Stop the class and focus on a student's key learning or understanding. Ask open-		
3. Shuffle the deck.	determine what the rest of		
4. Decide who will go first.	the group is thinking.		
5. First player unaws two cards. 6. Student adds or subtracts the cards	When possible, engage		
7. Student writes his/her problem on the white board, writing a complete number sentence.	students in a "teach to learn" opportunity and have the student become the teacher		
8. Students take turns drawing cards and creating problems.			





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 years. Enter the term "customary measurement" in your Vocabulary Notebook. Talk with a peer about what this term means to you. Vocabulary Notebook Sample:		
My Description	Vocabulary Notebooks can	
way to calculate time, length, and liquid	composition book.	
Drawing		
 Idents have an idea of what unit of want to know the distance from San Diego to ure that in inches or feet. It would make sense Students need to be familiar with both the et, yards, miles) and the metric system and have students determine which of the oth the customary and the metric system. 00 centimeters in a meter. A meter is just e approximately 100 centimeters in a yard. Iooking at a 12 inch ruler, you are looking at fix that means 100. The abbreviation of is 36 inches long and a meter is 1.093 yards a mile, a kilometer is just about .62 miles. 	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.	
	cabulary ent" refers to the measurement tools we use in ance we speak in terms of inches, feet, yards, is of ounces, cups, pints, quarts and gallons. s, minutes, hours, days, weeks, months and ur Vocabulary Notebook. Talk with a peer My Description way to calculate time, length, and liquid Drawing ivity ive that in inches of feet. It would make sense . Students need to be familiar with both the et, yards, miles) and the metric system and have students determine which of the the the customary and the metric system. 00 centimeters in a meter. A meter is just a approximately 100 centimeters in a yard. clooking at a 12 inch ruler, you are looking at fix that means 100. The abbreviation of is 36 inches long and a meter is 1.093 yards o a mile, a kilometer is just about .62 miles.	



- 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 s	ame 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 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?
Focus:	Measurement

Materials:			
White boards	Vocabulary I	Notebooks	dice
Crayolas	Double 9 Do	ominoes	
Activity at the end of t	his 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.	*Activity → Teachable Moment(s) <i>throughout</i>		
63 ÷ 9 =	During the lesson check in with students repeatedly.		
Fact Practice	Check in about what is happening and what they are thinking.		
Spots and Dots There is a master of Double 9 Dominos attached to this lesson plan. You will need 1 full set	Take advantage of any teachable moments.		
and if possible, laminate for use again in the future.	Stop the class and focus on a student's key learning or		
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	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.		
Addition: 2 + 3 = 5			

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Math Vo Word for Today: metric measurement Description: The term "metric measurement" world-wide. To measure length and distance w kilometers. To measure liquid we speak in terr measure time we speak in terms of seconds, m Enter the term "metric measurement" in your V what this term means to you. Vocabulary Notebook Sample: New Word metric measurement Personal Connection	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.	
He was given a 2 milliliter cup .		
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.		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?	

- 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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•	•	•	•••













Do not use			
Do not use	$\begin{array}{c}\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\\bullet\\$		











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:	Rounding Numbers
Focus:	Number Properties

White boards Vo	ocabulary Notebooks
Crayolas did	ice (6-sided and 12-sided for each pair)
Socks (for erasers) de	eck 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?	*Activity → Teachable Moment(s) <i>throughout</i> During the lesson check in
Fact Practice Fact Family	with students repeatedly. Check in about what is happening and what they are
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	Take advantage of any teachable moments.
$ \begin{array}{l} 4 + 9 = 13 \\ 13 - 9 = 4 \\ 13 - 4 = 9 \end{array} $	student's key learning or understanding. Ask open- ended questions to determine what the rest of
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	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.		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
New Word	My Description	be made from ½ of a composition book.
rounding	<u>7</u> ,852 = rounds to 8.000	
Personal Connection	Drawing	
What do you get when you round the number?	Round	
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.		Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.
Round 'EmDirections:1. Divide students into pairs.2. Give each pair a deck of Round 'Em ca3. Shuffle the cards and place between the4. Player 1 draws a card and looks at the5. The number that is underlined is the la6. Player rounds the number following the7. If player is correct, he/she gets one point	ards and a white board to keep score on. ne students. number on the card. ist digit the player wants to keep. e steps above. int.	

- 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 sa	me 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:	Rounding
Focus:	Number Properties

Materials:	
White boards	Vocabulary Notebooks
Crayolas	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.
- 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

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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.



Math Vo Word for Today: rounding Description: The term rounding refers to a pro- many of something there are. Rounding is not easier way to think about a number. The gener you want to keep, you look at the number to the round the digit you want to keep to the next dig leave the digit alone. Then you add zeros to th Review the entry in your Vocabulary Notebook about this word and what it means. 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	
rounding	<u>7</u> ,852 = rounds to 8.000	be made from ½ of a composition book.
Personal Connection What do you get when you round the number?	Drawing	
Act Rounding Numbers Rounding a number means reducing the digits the number close to its original value. When you about but it is less accurate. For example, if a nearest ten, you would have 440 (3 over the acc the nearest hundred, you would round to 400 (3) The most common method for rounding a numb Decide which is the last digit you want to keep, Increase the digit by 1 if the digit next to it to the Leave the digit as it is if the digit next to it to the Work through several examples with the studer nearest hundred. Practice applying the guideling demonstrate. Bring students up to practice.	Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.	
Round 'EmDirections:1. Divide students into pairs.2. Give each pair a deck of Round 'Em ca3. Shuffle the cards and place between th4. Player 1 draws a card and looks at the5. The number that is underlined is the late6. Player rounds the number following the7. If player is correct, he/she gets one poil8. Player 2 continues.9. Play is over when one of the players representation		
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 Round 'Em

г

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:	Math Fun!	
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 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?

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.



teams



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) <i>throughout</i>	
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. 	Check in about what is happening and what they are thinking. Take advantage of any teachable moments.	
 Snuffle 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 open- ended 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: converting time	It is important to review 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 WordMy Description week = 7 days = 168 hours		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.
Personal Connection I can convert weeks into hours	Drawing 3:37	
Ac Ti Converting Units of Time We measure things in a variety of ways. One can measure this in seconds, minutes, hours centuries. Being able to convert between the to plan and organize our time. Sometimes we will be busy thinking in days, a time. Then we discover if we were thinking in Today we are going to work on making conver- weeks. It is important to understand that there every day, 7 days in every week. Knowing the units of measure. It is also important to know which one of the to It is interesting that when a baby is first born we progress to "weeks", then "months" and fil before you leave the ½ off of your age in year are all familiar with the practice. Practice several conversions on the board 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 3. Shuffle the cards and place them fact there are any remaining cards, place 4. Player 1 turns over 2 cards. If they a two cards and they can be replaced	tivity ime e of the things that we measure is time. We days, weeks, months, years, decades and use difference measures makes it easier for us and will be very frustrated trying to schedule to weeks, it would be much more effective. ersions between minutes, hours, days, and re are 60 minutes in every hour, 24 hours in is will allow you to convert time among these ime measures makes the most sense to use. we talk about "days old", and as time goes by nally "years". How old do you need to be rs? There is no particular right answer, but we th students. When they are comfortable with	Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



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.

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 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:	3 rd Grade
Lesson Title:	Converting 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	*Activity → Teachable Moment(s) <i>throughout</i>	
buy a sweater that cost \$16.75. Does Joey have enough money? How do you know?	During the lesson check in with students repeatedly	
 Fore-header 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 referee who will be "judging" the contest On go, players are each handed a card by the referee and WITHOUT looking, put the card face out on his/her forehead The referee adds the two numbers together and states the answer Each player looks at the other person's exposed number and names his/her own number Person who wins (accuracy and time), collects both cards 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 	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.	

Γ



Math Vo Word for Today: converting time Description: Converting time is important so you are comparing time, start with the smalles convert to that unit. For example if you are we convert to days (you can always back up to w days, convert to hours and then work your wa Enter the term converting time in your Vocabu term means. Give an example. 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).	
New Word converting time	My Description week = 7 days = 168 hours	Vocabulary Notebooks can be made from ½ of a composition book.
I can convert weeks into hours	3:37	
I can convert weeks into hours 3:37 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 ½ 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?		Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.



3.	Shuffle the cards 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	sk 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 Much Time?

	n		1
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:	2 nd 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	*Activity → Teachable Moment(s) <i>throughout</i>		
If you have coins that total \$2.43, and you don't have any silver dollars or $\frac{1}{2}$ dollars, what is the smallest number of coins that you can have?	During the lesson check in with students repeatedly.		
 Fact Practice Fore-header 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 referee who will be "judging" the contest On go, players are each handed a card by the referee and WITHOUT looking, put the card face out on his/her forehead The referee adds the two numbers together and states the answer Each player looks at the other person's exposed number and names his/her own number Person who wins (accuracy and time), collects both cards 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 	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.		



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.		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
New Word customary measurement	My Description inches, feet, yards	be made from ½ of a composition book
A football field is 300 feet long.	Brawing B	
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. Came is a work when ell answer method.		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 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	eet 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 inches



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
Focus:	Measurement

Materials:

White boards

Vocabulary Notebooks dice

Crayolas 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?





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).

Vocabulary Notebooks can

people "compete" in pairs or

small groups. Once a game is mastered you can utilize it

in the "When Homework Is

Complete" center.

notebook for each word.

When possible, have

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	be made from ½ of a composition book.
	Personal Connection	Drawing	
	A football field is 300 feet long.	B TT 2 13	
Activity			Focus on having young

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?	
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 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 inches



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	Vocabular	y Notebooks	Dominoes
Crayolas	Deck of C	ards for each pair	
Activity at the end of this lesse	on plan	Socks (use as erase	rs)

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	*Activity → Teachable Moment(s) <i>throughout</i>	
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?	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.	
 Place the cards face up in a TicTac Toe Grid 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-	
 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. 	ended questions to determine what the rest of the group is thinking.	
 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 4. 	When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.	
 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		It is important to review
Word for today: rounding numbers		academic math vocabulary
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.		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
your friend.		acting out an equation).
Vocabulary Notebook Sample:		Vocabulary Notebooks can
New Word	My Description	be made from ½ of a
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	
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.		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.
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 pla leave the 3 alone. I would be thinking that 324		
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! <u>Directions:</u> Divide students into pairs. 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?

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 Round Me Off

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<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





Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Round Me Off
Focus:	Rounding Numbers

materiales		
White boards Voc	cabulary Notebooks	Materials at end of lesson plan
Crayolas 12-s	sided dice for each pair	Deck of Card for every 2 students
Number Hunt Work Sheet So	cks (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) <i>throughout</i>	
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 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.	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.	
Math Vocabulary	It is important to review	
word for today: rounding numbers	academic math vocabulary	



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: My Description rounding numbers 5 or more go ↑, 4 or less leave alone		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.
Personal Connection	Drawing	
Can you round that number off?	<u>3</u> 56 rounds to 400	
Image:		Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.
 Round Me Off! <u>Directions:</u> Divide students into pairs. 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. Shuffle the cards and place face down between the pair and next to the game board. 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. Game is over when one player gets to the finish line.

C	losing
R	leview
Say:	
 Please recap what we did today. 	
 Did we achieve our objectives? 	
U	lebrief
Three Whats	
Ask the following three what questions:	
What was your key learning for the day?	
What opportunities might you have to do this sam	ne thing in the "real world"?
What advice would you give to a "new" student ge	etting 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 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



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

CONSULT

Materials:			
White boards	Vocabulary Notebooks	dice	
Crayolas	deck of cards, no face c	ards or jokers for math fact practice	
Activity at the end of the lesso	on plan Socks (i	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) <i>throughout</i>			
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.			
 Kentove the face calds and jokers from the deck of calds. 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 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.			
Math Vocabulary	It is important to review			



Word for Today: operations		academic math vocabulary			
Description: The term "operations" refers to	Description: The term "operations" refers to such mathematical activities as addition				
subtraction, multiplication, and division. Add	Complete the Vocabulary				
like multiplication and division are reciprocal	. The operations of addition and subtraction have	notebook for each word.			
a "recipe" of steps that you follow to complet	e the process correctly.	When possible have			
Enter the term "operations" in your Vocabula	ry Notebook. Talk with a peer about what this	students experience the word			
term means to you.		(Ex. 4 students creating a			
Vocabulary Notebook Sample:		right angle, multiple students			
New Word	My Description	acting out an equation).			
		Vocabulary Notebooks can			
operations	begin adding and subtracting with the units	be made from $\frac{1}{2}$ of a			
·	place	composition book.			
Personal Connection	Drawing				
Linew how to odd and subtract					
I know now to add and subtract.					
A	Focus on having young				
Addition a	people "compete" in pairs or small groups. Once a game				
		is mastered vou can utilize it			
Addition and Subtraction	dition and subtraction. Come of the addition and	in the "When Homework Is			
subtraction will require regrouping others will	Complete" center.				
subtraction will require regrouping others will					
Addition and Subtraction					
Directions:					
1. Divide the students into pairs.					
2. Give each pair two decks of cards w					
6-sided die.					
3. Shuffle the cards and place betweer					
4. Player 1 draws 4-6 cards.					
5. Player 1 rolls the dice and if the nun					
problem, if the number is even, he/s					
6 Player creates and solves the proble					
	em and earns 1 point.				
7. Player 2 continues in the same way	em and earns 1 point.				



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:	3 rd Grade
Lesson Title:	Adding and Subtracting
Focus:	Addition and Subtraction

Materials:			
White boards	Vocabulary Notebooks	dice	
Crayolas	Double 9 Dominoes		
Activity at the end of this less	on 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	*Activity → Teachable Moment(s) <i>throughout</i>			
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?	During the lesson check in with students repeatedly.			
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	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.			


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:		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)
New Word My Description operations begin adding and subtracting with the units place		Vocabulary Notebooks can be made from ½ of a composition book.
Personal Connection I know how to add and subtract.	Drawing	
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 <u>Directions:</u>		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.
 Divide the students into pairs. Give each pair two decks of cards with face cards, tens, and jokers removed, and one 6-sided die. Shuffle the cards and place between the students. Player 1 draws 4-6 cards. 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. Player creates and solves the problem and earns 1 point. Player 2 continues in the same way. Game is over when one player 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? 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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Do not use			
Do not use	$ \begin{array}{c} \bullet \\ \bullet \\$		











Component Ma	lath
Grade Level: 3rd	rd Grade
Lesson Title: Th	he Four Operations
Focus: Op	perations

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 subtraction? 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 multiplication problem? What do you know about division? What are the steps to completing a multiplication problem? What do you know about division? What are the steps to completing a multiplication problem?

Content (the "Meat")			
Problem of the Day Select one of the following three shapes and then write three clues so a classmate would	*Activity → Teachable Moment(s) <i>throughout</i>		
know which shape you are talking about.	During the lesson check in with students repeatedly.		
	Check in about what is happening and what they are		
Fact Practice	thinking.		
Fact Family 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 open- ended 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: 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:		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
New Word	My Description	acting out an equation).
operations	begin adding, subtracting, multiplying and dividing with the units place	Vocabulary Notebooks can be made from ½ of a composition book.
Personal Connection	Drawing	
I know how to do all four operations.	+, -, X, /	
Addition Subtracti	Activity	Focus on having young
Addition, Subtraction, Multiplication, Division The Four Operations During third grade students learn to add, subtract, multiply and divide.		people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.
Directions:		
 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. 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. Play is over when team has found a way to mark out every number. 		



	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 s	ame thing in the "real world"?
What advice would you give to a "new" student	t 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:	3 rd Grade
Lesson Title:	The Four Operations
Focus:	Operations

Materials:	
White boards	Vocabulary Notebooks
Crayolas	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 subtraction? 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 multiplication problem? What do you know about division? What are the steps to completing a multiplication problem? What do you know about division? What are the steps to completing a multiplication problem? What do you know about division? What are the steps to completing a multiplication problem? What do you know about division? What are the steps to completing a multiplication problem? What do you know about division? What are the steps to completing a multiplication problem?

Content (the "Meat")		
Problem of the Day	*Activity → Teachable Moment(s) <i>throughout</i>	
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?	During the lesson check in with students repeatedly.	
Fact Practice Bump It Up! Add A Zero 1. Divide students into pairs	Check in about what is happening and what they are thinking.	
 Give each pair a white board and a deck of cards (without face cards, jokers, or 10s) The object of this fact practice is to sum numbers until you reach 1,000. 	Take advantage of any teachable moments.	
 Student draws 2 cards, adds the value of the cards together, multiplies by ten and writes the total on the sheet. 	Stop the class and focus on a student's key learning or	
5. It is not the other person's turn to do the same	ended questions to	
6. When play returns to the first player, the process is repeated, although this time, the totals are added together.	determine what the rest of the group is thinking.	
7. First person to 1,000 wins.	When possible, engage	
 Example: Player draws a 7 and a 4. Total is 11. Multiply by 10 (add the zero) equal 110. Next turn, player draws a 3 and a 2 which totals 5. Multiply by 10 and I now add 	 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: 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, subtracting, multiplying 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
Personal Connection I know how to do all four operations.	Drawing	composition book.
Addition, Subtraction The Four Operations During third grade students learn to add, su Four Operations Directions: 1. Make a list of the numbers between Challenge the students to use the r to equal the numbers between 10 a be rolled again. All dice must be use 2. For example, if I rolled a 3, 4, 5, 2, also say 3 + 4 - 5 + 2 - 1 = 3 and I is not within the range of 10 -25. 3. Play is over when team has found a	Activity on, Multiplication, Division btract, multiply and divide. to 10 and 25. Take five 6-sided dice and roll them. numbers rolled, and add, subtract, multiply or divide and 25. Once the dice have been rolled, they can't sed in each problem. and 1, I would say $3 + 4 + 5 + 2 + 1 = 15$. I could would not be able to use that equation because 3 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:
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:	3 rd Grade
Lesson Title:	Math Fun!
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 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

Closing
Review
ap what we did today.
ap 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.



teams