

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 mathematics that has to do with lines, space, and shapes, both plane (two-dimensional) and solid (three dimensional). Plane geometry is about lines, squares, and triangles to name a few. Solid geometry is about cubes, cylinders, and prisms. Enter the term Geometry in your Vocabulary Notebook. Share with a friend what the term means. Give an example. Vocabulary Notebook Sample: New Word My Description geometry lines, shapes and space Personal Connection Drawing I like geometric designs on books. Drawing		Complete the Vocabulary notebook for each word. When possible, have students experience the word (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 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.		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 angles. Explain that a right angle is in the shape of a capital L. Ask them to identify objects in the room that have right angles. Explain that angles can also be smaller or closer together than a right angle or larger or further apart than a right angle. Ask them to look at the hands of an analog clock. When it is 1:00 the hands form an angle smaller than a right angle. When it is 5:00, the angle is larger than a right angle. What hour times on the clock would be a right angle? Ask children to share what shape doesn't have angles or sides at all (circle).		
Today students are going to look at several shapes and identify the attributes of the shapes in term of sides, angles, and right angles.		
 Attributes of Shapes Directions: 1. Divide students into pairs. 2. Give each pair a set of shape cards and an Attribute Board. 3. Shuffle the cards and place them face down in between the students. 4. Working together, pair draws a card, identifies the shape and then examines based on the attributes listed. 5. When students finish they need to locate 10 objects in the classroom and the attributes of those items, using the chart. 6. When finished, pair should share the information with another pair. 		



Closing
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	Math Vocabulary		
Word for Today: geometry Description: Geometry is a type of mathematics that has to do with lines, space, and shapes, both plane (two-dimensional) and solid (three dimensional). Plane geometry is about lines, squares, and triangles to name a few. Solid geometry is about cubes, cylinders, and prisms. Enter the term Geometry in your Vocabulary Notebook. Share with a friend what the term means. Give an example. Vocabulary Notebook Sample: New Word My Description		academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation). Vocabulary Notebooks can be made from ½ of a	
geometry Personal Connection I like geometric designs on books.	Drawing	composition book.	
Act Geon 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 Talk with students about the different types of shape of a capital L. Ask them to identify obje Explain that angles can also be smaller or clo further apart than a right angle. Ask them to I is 1:00 the hands form an angle smaller than 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 sl in term of sides, angles, and right angles. Attributes of Shapes <u>Directions:</u> 1. Divide students into pairs. 2. Give each pair a set of shape cards a 3. Shuffle the cards and place them face 4. Working together, pair draws a card, on the attributes listed. 5. When students finish they need to loo attributes of those items, using the ch 6. When finished, pair should share the	ivity metry son, it is a descriptor, something you can say talk about attributes of geometric shapes we a, as well as size and color attributes. Fangles. Explain that a right angle is in the ects in the room that have right angles. ser together than a right angle or larger or ook at the hands of an analog clock. When it a right angle. When it is 5:00, the angle is the clock would be a right angle? Ask gles or sides at all (circle). hapes and identify the attributes of the shapes and an Attribute Board. e down in between the students. identifies the shape and then examines based cate 10 objects in the classroom and the nart. information with another pair.	Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.	



Closing
Review
Say:
Please recap what we did today.
Did we achieve our objectives?
Debrief
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:	Roll a Rectangle
Focus:	Geometry

Materials:		
White boards	Vocabulary Notebooks	Dice
Crayolas	Socks (erasers for white board)	
Cards	Activity at the end of the lesson plan	

Opening

State the objective

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

Gain prior knowledge by asking students the following questions

What do you know about finding the perimeter? What is the perimeter? What operation do you utilize when you are finding the perimeter of an object? If you were to have a school yard that measured 15 yards by 10 yards, and it was a perfect rectangle, what would the perimeter of the yard be? Make several rectangles on the white board or chart paper. Label the sides. Ask students to find the perimeter.

	Content (the "Meat")					
	Problem of the Day	*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	unniking. Taka advantara af anv				
Forehe	eader	teachable moments.				
1.	Divide students into trios. Give each trio a deck of cards without face cards and jokers.	Stop the class and focus on a				
2.	Shuffle the deck and give all of the cards to the referee who will be "judging" the contest	student's key learning or				
5.	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 Ve	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 war perimeter of a circle you would call it the circle	Complete the Vocabulary notebook for each word.				
Create an entry for the term "perimeter" in yo Vocabulary Notebook Sample:	When possible, have students experience the wor				
New Word	(Ex. 4 students creating a				
perimeter	the distance around a flat shape	acting out an equation) Vocabulary Notebooks can			
Personal Connection	Drawing	be made from ½ of a composition book			
What is the perimeter of your yard?					
Ac	tivity	Focus on having young			
Peri	neters	people "compete" in pairs or			
Perimeters The perimeter of a geometric shape is the dis spot (corner) and then add all the measurem	stance around the shape. You start at one ents together. For example:	is mastered you can utilize it in the "When Homework Is Complete" center			
4 ft.					
2 ft. 2 ft.					
4 ft. So, if you started at the black dot you would Draw several different shapes on the board, the perimeters of each of the items. Have ch understanding at the board.	create this problem: 4 + 2 + 4 + 2 = 12 feet. abeling the sides (don't draw a circle), and find ildren help by coming up and demonstrating				
Show students how to roll the sides of a rectare roll them. It the dice rolled are a 3 and a 4, y 3 squares by 4 squares.	angle 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 s + $3 + 4 + 3 = 14$ squares. Students will want 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 h 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.

Reflection (Confirm, Tweak, Aha!)

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



3rd Grade Roll a Rectangle Grid Paper



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Roll a Rectangle 2
Focus:	Geometry
	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 V Word for Today: perimeter Description: The term perimeter refers to t You start at one spot and measure all the way 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					
perimeter	the distance around a flat shape	right angle, multiple students acting out an equation). Vocabulary Notebooks can				
Personal Connection What is the perimeter of your yard?	Drawing	be made from ½ of a composition book.				
Perimeters The perimeter of a geometric shape is the d spot (corner) and then add all the measurem 4 ft. 2 ft. 2 ft. 2 ft. 3 ft. So, if you started at the black dot you would Draw several different shapes on the board, the perimeters of each of the items. Have c understanding at the board. Show students how to roll the sides of a rect roll them. It the dice rolled are a 3 and a 4, y 3 squares by 4 squares. If you started at the corner and counted the + 3 + 4 + 3 = 14 squares. Students will wan number sentence to show the addition of ea for each rectangle. Roll A Rectangle	create this problem: 4 + 2 + 4 + 2 = 12 feet. labeling the sides (don't draw a circle), and find hildren help by coming up and demonstrating tangle or a square. Take two 6-sided dice and you will create a rectangle on grid paper that is squares you would create a problem that was 4 t to roll the dimension of the rectangle, create a ch 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.				

Directions:

- 1. Divide students into pairs.
- 2. Give each pair a sheet of graph paper (attached to this lesson plan), and two 6-sided dice.
- 3. Working together, students roll the dice draw a rectangle that reflects the information on the dice.
- 4. Pair creates the perimeter equation and writes the perimeter in total number of squares.
- 5. Activity is over when the grid paper is full.

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





3rd Grade Roll a Rectangle Grid Paper



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Area
Focus:	How Many Squares?

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

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:1234567891234567891234567891234567891234999123499123456789999	Focus on having 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?

Reflection (Confirm, Tweak, Aha!)

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



3rd Grade How Many Squares? #1





Component	Math
Grade Level:	3 rd Grade
Lesson Title:	How Many Squares?
Focus:	Geometry

Materials:		
White boards	Vocabulary Notebooks	Materials at end of lesson plan
Crayolas	12-sided dice for each pair	Deck of Card for every 2 students
Number Hunt Work Sheet	Socks (for erasers)	Dominoes

Opening

State the objective

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

Gain prior knowledge by asking students the following questions

What do you know about finding the area of a two-dimensional geometric shape? What mathematical operation would you apply in order to find the area? What are you counting when you calculate area? (square units) Area is the space inside of a lined out area. When would you need to know how to calculate area? Draw several shapes on the board and have students calculate area.

Content (the "Meat")					
Problem of the Day	*Activity → Teachable Moment(s) <i>throughout</i>				
How are multiplication and addition alike? When would you use multiplication rather than addition? Explain your thinking.	During the lesson check in with students repeatedly.				
Fact Practice Number Hunt	Check in about what is happening and what they are thinking.				
 Divide students into pairs Each pair needs a Number Hunt sheet (attached to this lesson plans) 	Take advantage of any teachable moments.				
 Player rolls two, 12-sided dice. Player adds or subtracts the two numbers. If the number is not yet covered, then player may cover the number. Next player repeats steps 1-3. Winner is determined by who has the most numbers covered. 	Stop the class and focus on a student's key learning or understanding. Ask 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	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?

Reflection (Confirm, Tweak, Aha!)

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



Number Hunt

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

Number Hunt

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



3rd Grade How Many Squares #2

Component	Math
Grade Level:	3 rd Grade
Lesson Title:	What Seems Likely?
Focus:	Measurement

Materials:		
White boards	Vocabulary Notebooks	dice
Crayolas	deck of cards, no face cards or jokers for	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	What opportunities might you have to do this same thing in the "real world"?						
What advice would you give to a "new" student	getting ready to do this activity?						

Reflection (Confirm, Tweak, Aha!)

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



3rd Grade What Seems Likely?

Item	Customary	Metric
your finger		
a city block		
a highway		
a baby		
a road between two cities		
a car		
a pencil		
a railroad track between two stations		
a 4 story building		
a football field		
the Daytona 500 (car race)		
an eraser		
the distance to Hawaii from Los Angeles		
your height		
a book		
a fork		
your front door		
a tree		
distance to the moon		



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	What Seems Likes? 2
Focus:	Measurement

Materials:			
White boards	Vocabulary N	lotebooks	dice
Crayolas	Double 9 Dor	ninoes	
Activity at the end o	f this lesson plan	Socks (use	for erasers)

Opening

State the objective

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

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What do you know about measurement? What are some of the common units of measurement? (Think in terms of distance, liquid, and time.) What are some of the tools that we use to measure items?

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.
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.
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 Image: Image	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.

Г



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 .		
Act Measu Measurement It is important when we measure things that stu measurement should be used. For example, if Los Angeles, it would not make sense to meas to measure that distance in miles or kilometers customary system of measurement (inches, fee (centimeters, meters, or kilometers. Discuss different items that you could measure measures would be the most reasonable for bo When looking at the metric system, there are 1 longer than a yard, so this means that there are 2.54 centimeters is equal to an inch. If you are approximately 30 centimeters. "Centi" is a prefi- centimeter is cm. A meter is just longer than a yard stick. A yard long. A kilometer is 1,000 meters long. Compared to What Seems Likely? <u>Directions:</u>	ivity irement idents have an idea of what unit of I 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. I looking 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.	Focus on having 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 "rea	l 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

	••	













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:	Round 'Em
Focus:	Number Properties

Materials:	
White boards	Vocabulary Notebooks
Crayolas	dice (6-sided and 12-sided for each pair)
Socks (for erasers)	deck of card (one for every 2 players)

Opening

State the objective

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

Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What do you know about rounding numbers? Why would you want to round a number? When do you round a number up? When do you leave a number as it is? What do you do when you round a number to hundreds with the numbers in the tens and ones place.

Content (the "Meat")	
Problem of the Day The tables in the outdoor eating area at the school each hold 6 people. If there are 72 children who are there to eat, how many tables will you need?	*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 th4. 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?
?	

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

1 <u>2</u> 9	1 87	4 <u>0</u> 8	3 <u>7</u> 2
<u>1</u> 50	<u>8</u> 35	<u>2</u> 90	<u>3</u> 8
4 <u>6</u> 4	<u>5</u> 5	<u>5</u> 18	<u>8</u> 50
4 <u>2</u> 3	<u>6</u> 75	9 <u>4</u> 9	<u>7</u> 64
<u>6</u> 4	<u>3</u> 02	<u>2</u> 88	1, <u>5</u> 87
2, <u>4</u> 08	5, <u>3</u> 72	4, <u>8</u> 50	8, <u>9</u> 35
2, <u>5</u> 40	8 <u>4</u> 3	3, <u>9</u> 39	1, <u>9</u> 44
6,5 <u>2</u> 1	<u>4</u> 64	1, <u>0</u> 92	7, <u>6</u> 84



Component	Math
Grade Level:	3 rd Grade
Lesson Title:	Round 'Em 2
Focus:	Number Properties

Materials:	
White boards	Vocabulary Notebooks
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

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 represented	ards and a white board to keep score on. ne students. number on the card. st digit the player wants to keep. e steps above. int. eaches 15 points.	

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 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 '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:	Student Activity Choice
Focus:	Review

Materials:

Game Boards and materials from this week.

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

Opening

State the objective

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

Content (the "Meat")

Activity

Today 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