

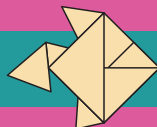


FIVE ESSENTIAL MATH SKILLS

**COMMON CORE
STATE STANDARD
ALIGNED LESSONS
& ACTIVITIES
DESIGNED TO
ENGAGE KIDS
AGES 6+**



WITH ORIGAMI



EDUCATOR & STUDENT GUIDES INCLUDED

- 1. FOLD AN ORIGAMI MODEL**
- 2. APPLY IT TO A MATH-BASED ACTIVITY**
- 3. ENGAGE CRITICAL THINKING IN BOTH INDIVIDUAL AND GROUP DISCUSSION PROMPTS**

WWW.PAPERGIRLS.COM/ESSENTIALSKILLS



Shapes in a Frame

Reason with Shapes & their Attributes

CCSS Standards:

- Distinguish between defining attributes vs. non-defining attributes and build and draw shapes to possess defining attributes. -[CCSS.MATH.CONTENT.1.GA.1 \(1st Grade\)](#)
- Compose two-dimensional shapes or 3D shapes to create a composite shape & compose new shapes. -[CCSS.MATH.CONTENT.1.GA.2 \(1st Grade\)](#)
- Recognize and draw shapes having specified attributes. -[CCSS.MATH.CONTENT.2.GA.1 \(2nd Grade\)](#)

Materials Needed:

- Square sheet of paper
- Shapes worksheets
- Pencil & Crayons

I Can:

- “I can identify and create different shapes by defining their attributes.”



Objectives (space permitting):



- Students will be able to identify triangles, squares and rhombus'/diamonds using their attributes.



Introduction (space permitting):



- Today we will create a picture frame using origami! While we are making our picture frame, think about what shapes you see and how you know what it is.

Directions:

Step	Graphic Examples	Teacher Direction	Student Direction
<p>①</p>		<p>Have students look at their origami paper.</p> <p>Tell students: “Use your 5 senses to observe the paper. What do you notice and wonder?”</p> <p>-Have students share what they see, and write their answers in their worksheets.</p> <p>-Hand each student a square piece of origami paper.</p>	<p>Let’s look at our piece of paper. Before we begin our origami, observe your paper using your 5 senses (except taste!)</p> <p>What do you notice about the paper?</p> <p>What do you wonder about the paper?</p>
<p>②</p>		<p>Depending on student level show the students folding directions to do on their own or go step by step to help students create their picture frame</p>	<p>Follow the directions to create an origami nest.</p> <p>Video here PDF here</p>

Step	Graphic Examples	Teacher Direction	Student Direction
<p style="text-align: center;">3</p>		<p>Observation Time!</p> <p>Give students time to observe their finished picture frame.</p> <p>Ask students: “What do you notice about your paper now that it is folded? How has your paper changed?”</p> <p>Have students write their answers in their worksheets.</p>	<p>Observation Time!</p> <p>Let’s observe our paper now! How has your paper changed? What do you notice about it now?</p>
<p style="text-align: center;">4</p>		<p>Shape Hunt!</p> <p>Have students go on a shape hunt.</p> <p>Ask students: “How many different shapes do you see in your frame? What are the shapes that you see? What attributes tell you what they are?”</p>	<p>Shape Hunt!</p> <p>Let’s go on a shape hunt! Look at your picture frame to help you find as many different shapes as you can!</p> <p>Fill out your worksheet to answer the questions.</p>

Step	Graphic Examples	Teacher Direction	Student Direction
<p>5</p>		<p>Partner Time: Have students share with a partner or a small group their answers.</p>	<p>Partner Time: Share with a partner all of the different shapes you found, and what clues helped you to find them.</p>
<p>6</p>		<p>Counting Time: Have students count how many triangles, rhombuses, and squares they count in their picture frame. Teacher can show class an example of counting shapes on the class example.</p>	<p>Counting Time! Let's count our shapes! Looking at your picture frame... How many triangles do you see? How many rhombuses do you see? How many squares do you see? Write your answers in your worksheet.</p>

Step	Graphic Examples	Teacher Direction	Student Direction
<p>7</p>		<p>Picture Drawing!</p> <p>Show students an example of a shape person/animal drawing.</p> <p>Tell students: “Now you will make a shape person or animal. Your drawing will go into your picture frame.”</p> <p>Once student’s finish help them slide their picture into the frame.</p>	<p>Picture Drawing!</p> <p>Now we will create a picture for our frame! Draw a shape animal or person using <i>only</i> shapes. You can use new shapes that we haven’t already found in our frame.</p>
<p>8</p>		<p>Gallery Walk!</p> <p>Have students do a gallery walk of their drawings.</p> <p>Tell students: “Look for other shapes you can find in your friend’s artwork.”</p>	<p>Gallery Walk!</p> <p>Check out the art your friends made! While you look at their pictures, what other shapes do you see?</p> <p>Share with your classmates how many shapes you used in your drawing.</p>



Shapes in a Frame

Reason with Shapes and their Attributes

Name: _____

Date: _____

Today we will make an origami picture frame! While you are making your frame, your job is to think about what shapes you see and its attributes.

- ① Before we start folding, observe your paper using your senses. What do you notice about the paper? What do you wonder?

I notice _____
_____ about the paper.

I wonder _____
_____ about the paper.

- ② Create your origami picture frame.

- ③ Examine your picture frame. What do you notice about how your paper has changed? Write or draw notes to show your thinking.



4 Time to identify shapes!

<p>How many different shapes do you see in your frame?</p> <p>I see _____ different shapes in the frame.</p>	<p>What are the names of the shapes you found?</p> <p>The shapes I see in my picture frame are _____, _____, and _____.</p>	<p>What clues helped you to figure out what the shape is?</p> <p>The clues that helped me know what the shape are was _____ and _____.</p>
--------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------

5 Share time! Share with a partner your answers.

6 Time to count shapes.

I see _____ triangles.	I see _____ rhombuses.	I see _____ squares.
------------------------	------------------------	----------------------

7 Now we will make a picture to put in your frame. On a colored paper, draw an animal or person using only shapes. Use this box to sketch out your ideas!



- 8 Share your art with you classmates in a gallery walk. Be sure to show the different shapes that you used, and look for other shapes in your friends drawings. Write down or draw a picture of all the new shapes you see.



Word Problem Robots

Operations & Algebraic Thinking

CCSS Standards:

- Addition and subtraction within 20 to solve word problems & equations.
-CCSS.MATH.CONTENT.1.OA.A.1 (1st Grade)
- Math strategies: counting one, making a friendly 10, decomposing.
-CCSS.MATH.CONTENT.1.OA.C.6 (1st Grade)
- Add and subtract within 100 using place value based strategies.
-CCSS.MATH.CONTENT.2.NBT.A.4 (2nd Grade)

Materials Needed:

- Square sheet of paper
- Pencil
- Robot worksheet

I Can:

- “I can use, create, and solve word problems by practicing my favorite math strategies.”

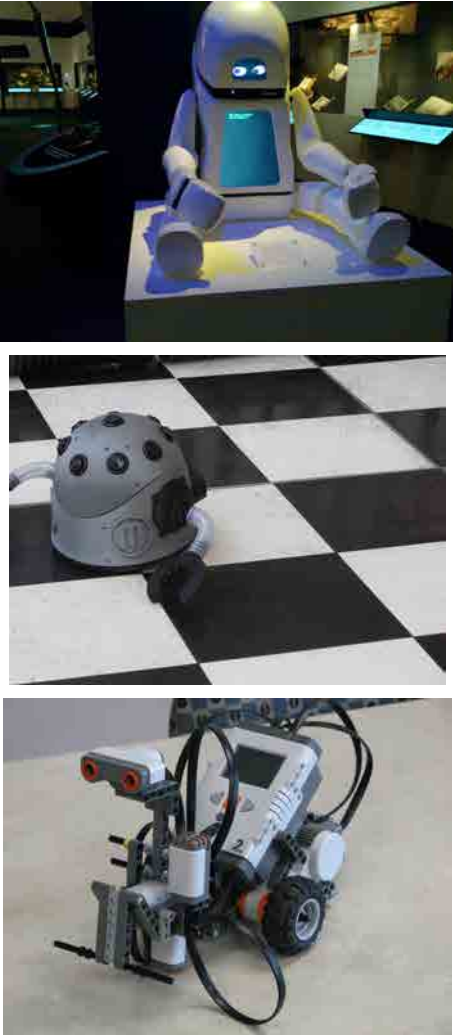
Objectives (space permitting):

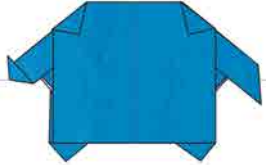
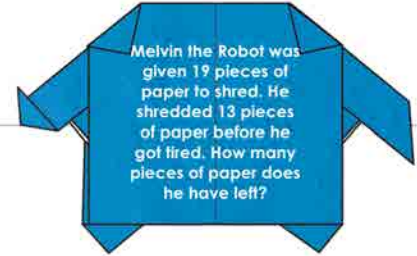
- Students will be able to use math strategies to solve word problems.

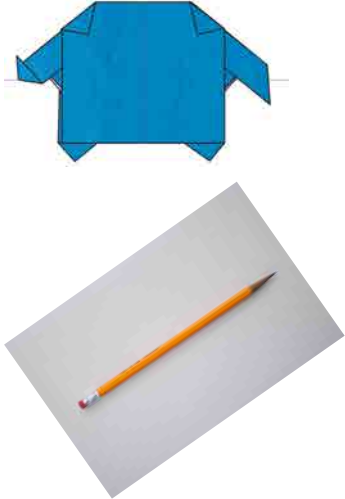

Introduction (space permitting):



- Today we will fold our very own math robot to help us create and solve word problems! We will share our word problems with a friend and see how minds solve problems differently.

Directions:

Step	Graphic Examples	Teacher Direction	Student Direction
<p>1</p>		<p>Show students a few pictures of different robots.</p> <p>Tell students: “We have robots to help us with different tasks.:</p> <p>Ask students: “How do robots help people? What do you notice and what do you wonder about the robots?”</p> <p>Hand each student a square piece of origami or printer paper.</p>	<p>Think about a robot.</p> <p>If you were to create your own robot, what would it do?</p> <p>How would it help people?</p>

Step	Graphic Examples	Teacher Direction	Student Direction
<p>②</p>		<p>Depending on student level show the students folding directions to do on their own or go step by step to help students create their origami robot.</p>	<p>Follow the directions to create an origami robot.</p> <p>Video here PDF here</p>
<p>③</p>	 <p>Melvin the Robot was given 19 pieces of paper to shred. He shredded 13 pieces of paper before he got tired. How many pieces of paper does he have left?</p>	<p>Once everyone has finished their robots tell students: “We will be writing our own word problems: Before you begin, show example and ask them to solve on their worksheets to practice.</p> <p>Teacher Example Options to use with Students:</p> <ul style="list-style-type: none"> • Subtraction: Melvin the Robot was given 19 sheets of paper. He shredded 13 sheets of paper before he got tired. How many pieces does Melvin have left? • Addition: Melvin washed 8 plates and 6 bowls. How many dishes did Melvin wash in all? 	<p>Time to solve a class word problem!</p> <p>Options:</p> <ul style="list-style-type: none"> • Subtraction: Melvin the Robot was given 19 sheets of paper. He shredded 13 sheets of paper before he got tired. How many pieces does Melvin have left? • Addition: Melvin washed 8 plates and 6 bowls. How many dishes did Melvin wash in all? <p>Be sure to show your work and strategy you used to solve the problem.</p>

Step	Graphic Examples	Teacher Direction	Student Direction
<p>4</p>		<p>Students begin creating their own word problems about their robot.</p> <p>Pair students up and ask them to think about a word problem to write on their robots using addition or subtraction within 20 (1st grade), or within 100 (2nd-3rd grade).</p>	<p>Time to create your own robot word problem with a partner using addition or subtraction.</p> <p>Remember: Write <i>only</i> the problem, <i>not</i> the answer.</p> <p>1st Grade: Write a word problem that equals less than 20.</p> <p>2nd-3rd Grade: Write a word problem that equals less than 100.</p>
<p>5</p>		<p>Time to Solve!</p> <p>On the worksheet, have students solve their word problem using their favorite strategy.</p>	<p>Time to Solve!</p> <p>Solve your own word problem by showing your work and using your favorite strategy.</p>

Step	Graphic Examples	Teacher Direction	Student Direction
<p>6</p>		<p>Time to Pass our Robots:</p> <p>Have students pass their robot to another pair. Students will then solve the new robot problem on their worksheet with their partner.</p> <ul style="list-style-type: none"> • Students will repeat this step 4 times (time permitting) 	<p>Time to Pass our Robots:</p> <p>Pass your robot word problem to another group. Now you can solve your classmates word problem.</p> <p>Be sure to show your work and thinking on your worksheet.</p> <p>When you finish solving, pass the robot to a new group and solve a new word problem!</p>
<p>7</p>		<p>Share time!</p> <p>Choose a few pairs to share with the class how they solved their word problems.</p> <p>Encourage students to ask each other questions.</p>	<p>Share time!</p> <p>Choose your favorite problem to solve and the strategy you used to solve the problem.</p> <p>Listen to how your friends solved their problem to learn a new strategy!</p>



Step	Graphic Examples	Teacher Direction	Student Direction
8		<p>Closure:</p> <p>Tell students: "Today we practiced solving word problems using robots and our favorite math strategies."</p> <p>Ask students to share with the class: "Think about a word problem you or a friend solved. What strategy was the most helpful for you?"</p>	<p>Today we practiced solving word problems using robots and our favorite math strategies.</p> <p>Think about a word problem you or a friend solved. Share with a partner or the class the strategy that was the most helpful for you.</p>



Word Problem Robots Worksheet

Operations & Algebraic Thinking

Name: _____

Date: _____

Today you will make an origami robot! You will get to create your own robot word problems and see how your friends solve the problems.

- ① Robots are made to help us do things. If you made your own robot, what would it do to help people?

My robot would help people by _____

- ② Solve your class word problem. Be sure to show your thinking.

- ③ With a partner, create your own robot word problem. It can be an addition or subtraction problem. Write your problem below and on your robot.



- ④ Time to solve! Solve your word problem and show your work.

- ⑤ Pass your robot and solve a new robot problem. Be sure to show your work.

- ⑥ Pass your robot and solve a new robot problem. Be sure to show your work.



- 7 Pass your robot and solve a new robot problem. Be sure to show your work.

- 8 Share time! Share your favorite word problem and how you solved it with your classmates.
- 9 Today we practiced solving word problems using our favorite math strategies. Think about a problem you or a friend solved. Draw a picture or write about one strategy you learned today.

One new strategy I learned about today is _____



Out of This World Math Facts

Math Fact Automaticity

CCSS Standards:

- Add and subtract within 20 using *mental math*. -CCSS.MATH.CONTENT.2.OA.B.2 (2nd Grade)

Materials Needed:

- Square sheet of paper
- Pencil
- Basket
- Whiteboards
- Dry Erase Marker

I Can:

- “I can use mental math fact strategies to help me solve addition and subtraction problems.”


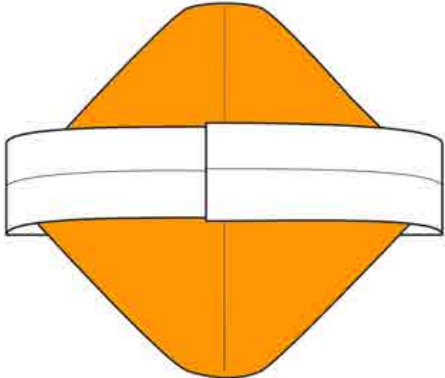
Objectives (space permitting):

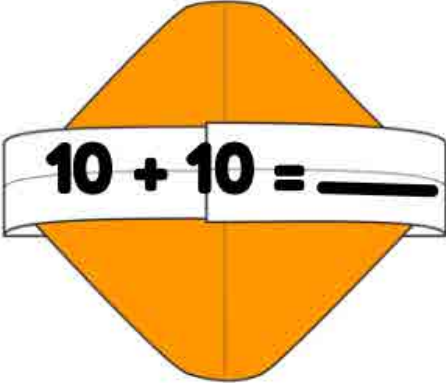
- Students will be able to use math fact strategies to automaticity in adding and subtracting within 20.



Introduction (space permitting):

- Today we will create out of this world origami planets to practice math facts! We will play a game to see which team can solve their math facts the fastest.

Directions:

Step	Graphic Examples	Teacher Direction	Student Direction
<p>①</p>		<p>Show students a picture of kids in a race.</p> <p>Ask students: “When was a time that you were in a race? What helped you to do your best?”</p> <p>Hand each student a square sheet of origami paper.</p>	<p>Think about a time that you were in a race. What helped you to do your best?</p>
<p>②</p>		<p>Depending on student level show the students folding directions to do on their own or go step by step to help students create their origami ringed planet.</p>	<p>Follow the directions to create an origami robot.</p> <p>Video here PDF here</p>

Step	Graphic Examples	Teacher Direction	Student Direction
<p style="text-align: center;">3</p>		<p>Once everyone has finished their origami ringed planet, students will write an addition or subtraction problem within 20 on the ring.</p> <p>Collect each planet and put them into a basket.</p> <p>(Teacher choice- teacher's may choose to give students pre-made problems, or let them come up with their own.</p> <p>Examples: $10 + 10$ $20 - 3$ $12 + 8$ $17 - 10$ $11 + 9$ $5 - 1$ $3 + 5$ $10 - 7$</p>	<p>Time to think of an addition or subtraction problem within 20.</p> <p>Write <u>only</u> the equation, <u>not</u> the answer.</p> <p>Example: $10 + 10 = \underline{\hspace{2cm}}$</p> <p>Give your teacher your planet and begin the game!</p>

Step	Graphic Examples	Teacher Direction	Student Direction
<p>4</p>		<p>Game Time! Separate students into two teams. Each team will need one whiteboard and dry erase marker.</p> <p>Have each team get into a line.</p>	<p>Game Time! Get into a line to play the game!</p>
<p>5</p>		<p>How to Play: Each student in line will come to the front of the room and play against the person on the other team in the front of the line. A student or teacher will grab 1 planet from the basket.</p> <p>Using mental math, students will try to be the first to solve the problem. If students need help they can phone a team member to come up and help them.</p> <p>The first to solve the problem gets a point for their team.</p>	<p>How to Play: Be the first to solve the math fact on the planet chosen.</p> <p>Whoever solved the problem first gets a point for their team.</p> <p>-If you need help you can phone a team member to help you find the answer.</p> <p>Keep playing until all planets are solved!</p>



Step	Graphic Examples	Teacher Direction	Student Direction
6		<p>Closure:</p> <p>Have students think about a problem they or a friend solved.</p> <p>Ask students: "What strategy was most helpful to you when trying to solve your math fact quickly?"</p> <p>Allow students to come to the board to show what they did in their heads.</p>	<p>Today we practiced solving math facts using out of this world mental math strategies!</p> <p>Think about a math fact you or a friend solved. Share with the class the strategy that was the most helpful to you.</p> <p>What is a strategy you learned?</p>



Out of This World Math Facts Worksheet

Math Fact Automaticity

Name: _____

Date: _____

Today we will create out of this world origami planets to practice math facts! We will play a game to see which team can solve their math facts the fastest.

- ① Think about a time you were in a race. What helped you to do your best?

What helped me to do my best in a race was _____

- ② Create your origami ringed planet. Draw a picture of the planet.

- ③ Game time!

- ④ Today we practiced solving math facts using our out-of-this world brains! Think about a problem you or a friend solved. Write or draw a picture on the back of the paper to tell what you did in your head to solve the problem.



Splash! Place Value

Number & Operations in Base 10

CCSS Standards:

- Understanding that the two digits of a two-digit number represent amounts of tens and ones. -[CCSS.MATH.CONTENT.1.NBT.B.2](#) (2nd Grade)
- Understand that the three digits of a three-digit number represent the amounts of hundreds, tens, and ones. -[CCSS.MATH.CONTENT.2.NBT.A.A.1](#) (2nd Grade)

Materials Needed:

- Square sheet of paper
- Anchor chart paper with place value map (see example in step 4)
- Student worksheet

I Can:

- “I can use place value to help me identify a two or three digit number.”



Objectives (space permitting):


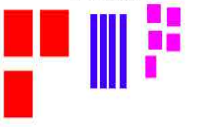
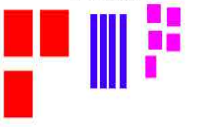
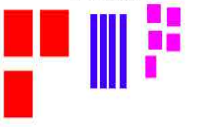
- Students will be able to use place value to identify two or three-digit numbers.



Introduction (space permitting):

- Today we will create our very own fish to find strategies to count bigger numbers!

Directions:

Step	Graphic Examples	Teacher Direction	Student Direction
<p>①</p>		<p>Show students pictures of fish in the ocean.</p> <p>Ask students: “What do you notice about the fish? What do you wonder about the picture?”</p> <p>Ask students: “How many fish do you estimate are in the picture?”</p> <p>Hand each student a square sheet of origami paper</p>	<p>Check out these awesome pictures of fish in the ocean!</p> <p>What do you notice about the fish?</p> <p>What do you wonder about the picture?</p> <p>How many fish do you think are in picture #1?</p>
<p>②</p>		<p>Depending on student level show the students folding directions to do on their own or go step by step to help students create their origami fish.</p> <p>Let students decorate their fish when finished.</p>	<p>Follow the directions to create an origami fish.</p> <p>Video here</p> <p>PDF here</p>

Step	Graphic Examples	Teacher Direction	Student Direction										
<div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">3</div>	<div style="display: flex; justify-content: space-around; margin-bottom: 5px;"> <div style="border: 1px solid purple; padding: 2px; font-size: 8px;">Hundreds Ocean</div> <div style="border: 1px solid purple; padding: 2px; font-size: 8px;">Tens River</div> <div style="border: 1px solid purple; padding: 2px; font-size: 8px;">Ones Creek</div> </div>  <p style="font-size: 8px; margin-top: 5px;">How many fish did you find? Fill in the chart to show your findings. What is your number in standard form? <u>3</u> <u>4</u> <u>5</u></p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: 8px;"> <tr> <td style="width: 50%; padding: 2px;"> Picture Form:  </td> <td style="width: 50%; padding: 2px;"> Expanded Form: $300 + 40 + 5 = 345$ </td> </tr> <tr> <td style="padding: 2px;"> Hundreds, Tens, and Ones Form: <table style="margin-left: 20px; border-collapse: collapse;"> <tr><td style="text-align: right; padding-right: 5px;">3</td><td>Hundreds</td></tr> <tr><td style="text-align: right; padding-right: 5px;">4</td><td>Tens</td></tr> <tr><td style="text-align: right; padding-right: 5px;">5</td><td>ones</td></tr> </table> </td> <td style="padding: 2px;"> Word Form: <u>Three hundred and forty five</u> _____ _____ </td> </tr> </table>	Picture Form: 	Expanded Form: $300 + 40 + 5 = 345$	Hundreds, Tens, and Ones Form: <table style="margin-left: 20px; border-collapse: collapse;"> <tr><td style="text-align: right; padding-right: 5px;">3</td><td>Hundreds</td></tr> <tr><td style="text-align: right; padding-right: 5px;">4</td><td>Tens</td></tr> <tr><td style="text-align: right; padding-right: 5px;">5</td><td>ones</td></tr> </table>	3	Hundreds	4	Tens	5	ones	Word Form: <u>Three hundred and forty five</u> _____ _____	<p>Before students begin the game, play one round as a class. Show the worksheet and fill in question #3 as a class.</p> <p>Teacher Note- If <i>not</i> learning regrouping, tell student to be sure there is no more than 9 fish per row.</p> <p>Game Directions:</p> <ol style="list-style-type: none"> 1. Students will all gently toss their fish onto a big place value mat (on anchor chart/butcher paper). 2. Once all fish are on the mat, students will work together to count how many fish are in each row. 3. On student worksheets, students will record their findings. 	<p>Game Time!</p> <p>Directions:</p> <ol style="list-style-type: none"> 1. Everyone will gently toss their fish into a body of water (hundreds, tens, or ones). 2. As a team, count how many fish are in the hundreds ocean. 3. Count how many fish are in the tens place river. 4. Count how many fish are in the ones place creek. 5. Record your answers and fill out your place value chart. 6. Collect your fish and play again!
Picture Form: 	Expanded Form: $300 + 40 + 5 = 345$												
Hundreds, Tens, and Ones Form: <table style="margin-left: 20px; border-collapse: collapse;"> <tr><td style="text-align: right; padding-right: 5px;">3</td><td>Hundreds</td></tr> <tr><td style="text-align: right; padding-right: 5px;">4</td><td>Tens</td></tr> <tr><td style="text-align: right; padding-right: 5px;">5</td><td>ones</td></tr> </table>	3	Hundreds	4	Tens	5	ones	Word Form: <u>Three hundred and forty five</u> _____ _____						
3	Hundreds												
4	Tens												
5	ones												

Step	Graphic Examples	Teacher Direction	Student Direction
<p>4</p>		<p>Game Time!</p> <p>While students are playing, check for understanding with each group.</p>	<p>Game Time!</p> <p>Time to play the game. Be sure to record your answers on your worksheet.</p>
<p>5</p>		<p>Share Time:</p> <p>Choose a few students to share their place value maps & thinking.</p> <p>Encourage students to ask each other questions.</p>	<p>Share Time:</p> <p>Choose your favorite number that you found! Share with your classmates how you found the number using different strategies.</p>
<p>6</p>		<p>Closure</p> <p>Tell students: “Today we played a game to find two and three digit numbers.”</p> <p>Ask students to share: “Think about a big number. How does place value strategies help you to know what the number is?”</p>	<p>Today we played a game to find two and three digit numbers.</p> <p>Think about a big number. How does place value strategies help you to know what the number is?</p>



Splash! Place Value Worksheet

Numbers & Operations in Base 10

Name: _____

Date: _____

Today you will create your own origami fish! We will then use our fish to play a fun place value game.

① There are so many different fish in the ocean. Looking at the picture, make a best-guess estimate of how many fish there are.
I think there are _____ fish in the picture.

② Game time! To play the game follow the directions and fill out the place value charts to show your answers.

③ How many fish did you find? Fill out the chart to show your answer. What is your number in standard form? _____.

Picture Form:	Expanded Form: _____ + _____ + _____ = _____
Hundreds Tens & Ones Form _____ Hundreds _____ Tens _____ Ones	Word Form _____ _____ _____



4 How many fish did you find? Fill out the chart to show your answer. What is your number in standard form? ____ ____ ____.

Picture Form:	Expanded Form: ____ + ____ + ____ = _____
Hundreds Tens & Ones Form ____ Hundreds ____ Tens ____ Ones	Word Form _____ _____ _____

6 How many fish did you find? Fill out the chart to show your answer. What is your number in standard form? ____ ____ ____.

Picture Form:	Expanded Form: ____ + ____ + ____ = _____
Hundreds Tens & Ones Form ____ Hundreds ____ Tens ____ Ones	Word Form _____ _____ _____



- 7 Share time! Choose your favorite number that you solved. Share with your classmates how you found your number using different strategies.
- 8 Today we practiced finding numbers with place value. Think about a super big number. How can place value strategies help you know what a number represents?

Place value strategies help me know a number by _____



Skip Counting Nest

Number Operations & Base 10

CCSS Standards:

- Skip counting by 10s - adding and subtracting multiples of 10 -[CCSS.MATH.CONTENT.1.NBT.C.5](#) (1st Grade)
- Skip counting by 5s, 10s, and 100s up to 1,000* -[CCSS.MATH.CONTENT.2.NBT.A.2](#) (2nd Grade)

Materials Needed:

- Square sheet of paper
- Student worksheets
- Natural materials from outside- twigs, stems, pebbles, etc.

I Can:

- “I can skip count to help me count how many.”



Objectives (space permitting):



- Students will be able to use skip counting by 2s, 5s, and 10s to help them count larger numbers.



Introduction (space permitting):



- Today we will create our own bird's nest! We will then collect items in our nest, and use skip counting to see how many items we found.

Directions:

Step	Graphic Examples	Teacher Direction	Student Direction
<p>①</p>		<p>Show students a few pictures of a bird's nest.</p> <p>Ask students: "What do you notice and what do you wonder about the nest?"</p> <p>Ask students: "What do you think a bird would put in it's nest?"</p> <p>Hand each student a square piece of paper.</p>	<p>Check out this bird's nest.</p> <p>What do you notice about the pictures?</p> <p>What do you wonder about the nest? Share as a class/group.</p> <p>What do you think birds put in their nest?</p>
<p>②</p>		<p>Depending on student level show the students folding directions to do on their own or go step by step to help students create their bird's nest.</p> <p>If student's finish early, let them decorate their nest.</p>	<p>Follow the directions to create an origami nest.</p> <p>Video here PDF here</p> <p>You can decorate your nest using crayons or colored pencils while waiting for everyone to finish.</p>

Step	Graphic Examples	Teacher Direction	Student Direction
<p>3</p>		<p>Collection Time!</p> <p>Take students outside to collect twigs, plants, and little rocks. Allow students to collect as many items as they can fit in their nest for counting.</p> <p>(If going outside is not available collect small items to allow students to collect and put in their nests (paper shreds, paperclips, marker caps, pom poms, etc.)</p>	<p>Collection Time!</p> <p>Go outside and collect small items that you may see in a bird's nest. You can collect as many as you can fit in your nest. Be ready to count them!</p>
<p>4</p>		<p>Counting Time!</p> <p>Tell students you will now practice skip counting.</p> <p>Ask students: "How does skip counting help you when counting many items?"</p>	<p>Counting time!</p> <p>Let's see how many items you collected using skip counting.</p> <p>How does skip counting help you when counting many items?</p>

Step	Graphic Examples	Teacher Direction	Student Direction
<p style="text-align: center;">5</p>		<p>Class Practice: As a class, show your own pile of items. Show students making groups of 2 of each item until every item is in its group.</p> <p>Have students help you to skip count how many items you have.</p>	<p>Class Practice: How many items does your teacher have in their pile?</p> <p>How many items were in each group? (2 or 5)</p>
<p style="text-align: center;">6</p>		<p>Independent Practice: Have students practice skip counting their own items- using 2s, 5s, and 10s.</p>	<p>Counting Time! Break your items up into piles of 2. -How many items did you count? -How many groups of 2 were there? Put all of your items back in the nest. Break your items up into piles of 5. -How many items did you count? -How many groups of 5 were there? Put all of your items back in the nest. Break your items up into piles of 10. -How many items did you count? -How many groups of 10 were there?</p>

Step	Graphic Examples	Teacher Direction	Student Direction
<p style="text-align: center;">7</p>		<p>Share time!</p> <p>Choose a few students to share their skip counting out loud with the class. Have students share out how many groups there were, and how it helped them to count.</p> <p>Encourage students to ask each other questions.</p>	<p>Share time!</p> <p>Share with the class how you skip counted! Choose if you want to skip count for your classmates by 2s, 5s, or 10s.</p> <p>What is one question you have for your classmate?</p>
<p style="text-align: center;">8</p>		<p>Closure:</p> <p>Tell students: "Today we collected items for our birds nests and counted how many we found using 2s, 5s, and 10s."</p> <p>Ask students: "Think about how many birds you see in the sky. How does skip counting help you to count a big number?"</p>	<p>Today we collected items for our birds nests and counted how many using 2s, 5s, and 10s.</p> <p>Think about how many birds you see in the sky. How does skip counting help you to count a big number?</p>



Skip Counting Birds' Nest Worksheet

Number Operations & Base 10

Name: _____

Date: _____

Today we will create our own bird's nest! We will then collect items in our nest, and use skip counting to see how many items we found.

- ① Bird's nests are made up of many twigs and other items found outdoors. What do you think birds put in their nest?

I think birds put _____
_____ in their nests.

- ② Collection time! Go outside and collect small items to put in your bird's nest. You can collect as many items that you can fit in your nest. Be ready to count them!

- ③ How many items did your teacher have in their nest? How many groups of 2 did they have?

My teacher has _____ items in their nest. There were _____ groups of 2.

- ④ Your turn! Break your items into groups of 2. How many items did you have in your nest? How many groups of 2 did you count?

I have _____ items in my nest. There were _____ groups of 2.



- 5 Put all of your items back in your nest. Now break your items into groups of 5. How many items did you have in your nest? How many groups of 5 did you count?

I have _____ items in my nest. There were _____ groups of 5.

- 6 Put all of your items back in your nest. Now break your items into groups of 10. How many items did you have in your nest? How many groups of 10 did you count?

I have _____ items in my nest. There were _____ groups of 10.

- 7 Share time! Show your classmates how you skip counted using 2s, 5s or 10s. What is one question you have for a classmate who shared?

Question:

?

- 8 Today we collected items for our birds nests and counted how many using 2s, 5s and 10s. Think about how many birds you see in the sky. How does skip counting help you to count a big number? Write or draw your answer.

Skip counting helps me to count big number because

