

Small Group Center Resource- Differentiated

Math Standard

3.G.1 Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals. Draw examples of quadrilaterals that do not belong to any of these subcategories.

Objectives

Low: By the end of the week, the students will be able to recognize and name quadrilaterals, rectangles, squares, parallelograms, and rhombuses. Students will be able to recognize other shapes that have four sides (i.e. trapezoid and non-categorical quadrilaterals).

On Track: By the end of the week, the students will be able to name, recognize, and categorize quadrilaterals, rectangles, parallelograms, rhombuses, trapezoids, and squares. Students will be able to recognize non-categorical four sided shapes as quadrilaterals.

Above: By the end of the week, the students will be able to name, categorize, and create quadrilaterals or all kinds. They will be able to create quadrilaterals that do not belong to any subcategory.

	Teacher	Alone	Technology	Formative Assessment
Day 1	Pattern blocks	Count the quadrilaterals	Splash Math https://www.splashmath.com/geometry-games-for-3rd-graders	During teacher time
Below	Introduce shapes with four sides. Define quadrilateral.	Count as many 4 sided shapes as you can find.	Students will play the game “Identify Quadrilaterals”	Trace the quadrilaterals
On track	Introduce shapes with four sides. Define quadrilateral.	Count as many 4 sided shapes as you can find.	Students will play the game “Identify Quadrilaterals”	Trace the quadrilaterals

Above	Define quadrilateral. Define square and rectangle.	Count as many 4 sided shapes as you can find.	Students will play the game “Quadrilaterals with different orientations”	Trace the quadrilaterals and color in the square and rectangle
Day 2	Geoboard	Pattern blocks	Google Draw	
Below	Define rectangle	Create the pattern block puzzle using any quadrilateral	Use rectangles to create a pattern block puzzle.	Drawing rectangles
On track	Define square and rectangle.	Create the pattern block puzzle using any quadrilateral	Use squares and rectangles to create a pattern block puzzle.	Drawing squares and rectangles
Above	Define parallelogram	Create the pattern block puzzle using only squares and rectangles.	Use squares, rectangles, and parallelograms to create a pattern block puzzle.	Drawing parallelograms
Day 3		Geoboard	https://www.ixl.com/math/grade-3/identify-rectangles	
Below	Define square	Create squares.	Play “identify rectangles”	321 exit slip
On track	Define parallelogram.	Create squares and rectangles	Play “identify parallelograms”	321 exit slip
Above	Define rhombus.	Create squares, rectangles, and parallelograms.	Play “identify rhombuses”	321 exit slip
Day 4		Play dough	https://www.mathgames.com/skill/3.4-classify-quadrilateral-shapes	
Below	Define parallelogram	Create quadrilaterals	Play “compare sides and corners:	Circle the parallelogram
On track	Define rhombus.	Create quadrilaterals	Play “classify quadrilaterals”	Circle the rhombus
Above	Define trapezoid	Create quadrilaterals	Play “classify quadrilaterals”	Circle the trapezoids
Day 5			Choice of week’s other activities	
Below	Define rhombus and review.	Cut and glue diagram	Students should choose one of the activities to play from earlier this week.	Exit slip
On track	Define trapezoid and review.	Cut and glue diagram	Students should choose one of the activities to play from earlier this week.	Exit slip

Above	Explore quadrilaterals that do not fit these subcategories and review.	Cut and glue diagram	Students should choose one of the activities to play from earlier this week.	Exit slip
-------	--	----------------------	--	-----------

Day 1 Directions:

Below:

- With Teacher: I will show the students pattern blocks that have four sides. I will ask the students to determine what all the shapes have in common (they all have four sides/four points). After making this discovery, I will tell the student that the math term for these shapes is quadrilateral. The students will sort a small bag of pattern blocks into shapes that are quadrilaterals and shapes that are not quadrilaterals. They can use the pile from the beginning as a visual reference. Students will trace the shapes that are quadrilaterals onto a sheet of paper. They will keep this sheet of paper as a reference for the rest of the week. Then, on the sheet, as a small group, I will direct the students in writing the key attributes of all quadrilaterals: four sides, four points. They will keep their reference paper in their math folder.
 - Formative Assessment- Trace the quadrilaterals
- Alone: Use the below group page to count the quadrilaterals (4 sided shapes). The students can use a colored pencil or marker to trace the shapes with 4 sides as they go.
- Technology: The students will play the game “Identify quadrilaterals” on the site <https://www.splashmath.com/geometry-games-for-3rd-graders>

On Track:

- With Teacher: Same activity as below group. In addition, the students will identify classroom objects that are quadrilaterals (side of a block, white board, cupboard door, etc.).
 - Formative Assessment- Trace the quadrilaterals
- Alone: Use the on track group page to count the quadrilaterals (4 sided shapes). The students can use a colored pencil or marker to trace the shapes with 4 sides as they go.

- Technology: The students will play the game “Identify quadrilaterals” on the site <https://www.splashmath.com/geometry-games-for-3rd-graders> (More difficult than low group because they will be doing this activity before the mini lesson with the teacher).

Above:

- With Teacher: I will introduce quadrilaterals in a similar way as the below and on track groups. (Use the pattern blocks to make connections). The students will use the pattern blocks that I introduce as a reference as they discuss the quadrilaterals that they see in the room side of a block, white board, cupboard door, etc.). They will draw these shapes on a piece of paper. Then, through discussion, the students will write down the qualities of a quadrilateral: four sides, four points. They will use this sheet for reference throughout the week. I will tell the students that there are different types of quadrilaterals. I will tell the students that today we are going to talk about 2 types: rectangle and square. They will write these on their reference paper. I will show the students a rectangle pattern block and ask the students what makes it unique. We will discuss then the students should write the definition on their reference sheet. (their definitions must be like this: 2 long sides and 2 short sides, sides of equal length are opposite of each other. All the corners are the same size). I will do the same process for the term square (all sides and all corners are the same size). Through discussion, I will guide the students to understanding that a square is always a rectangle, but a rectangle is not always a square
 - Formative Assessment- Trace the quadrilaterals and color the rectangle and square
- Alone: Use the above group page to count the quadrilaterals (4 sided shapes). The students can use a colored pencil or marker to trace the shapes with 4 sides as they go.
- Technology: The students will play the game “Quadrilaterals with different orientations” on the site <https://www.splashmath.com/geometry-games-for-3rd-graders>

Resources:

Reference page for teacher small group:

Quadrilaterals

Definition: _____

Draw or trace quadrilaterals in this box:



Definition: _____



Definition: _____



Definition: _____



Definition: _____

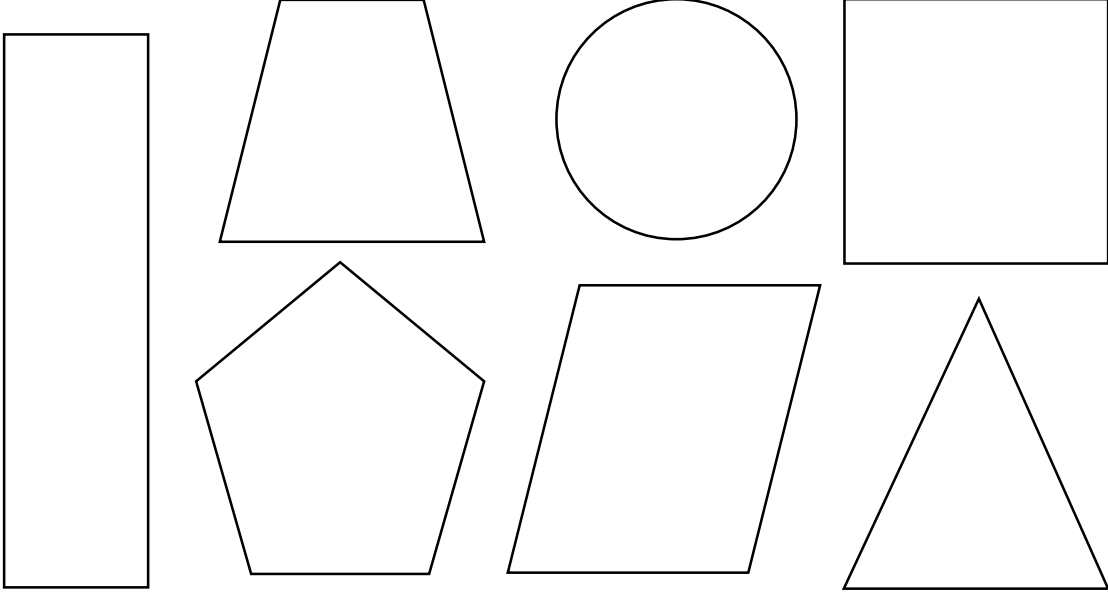


_____ (*Only for on track and above*)

Definition: _____

Formative Assessment for below and on track groups:

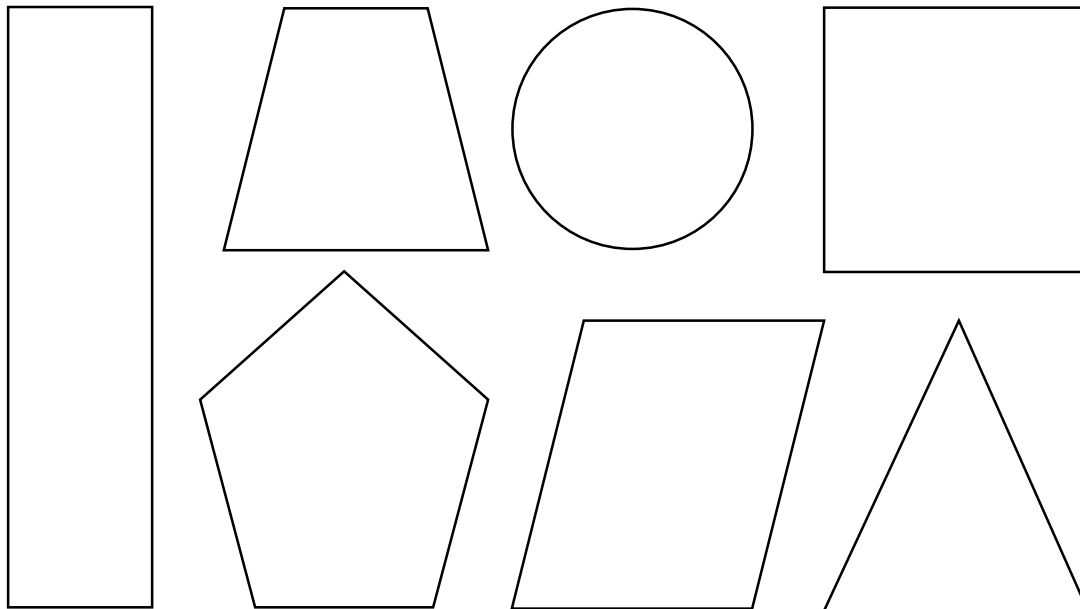
Outline the shapes that are quadrilaterals with a marker.



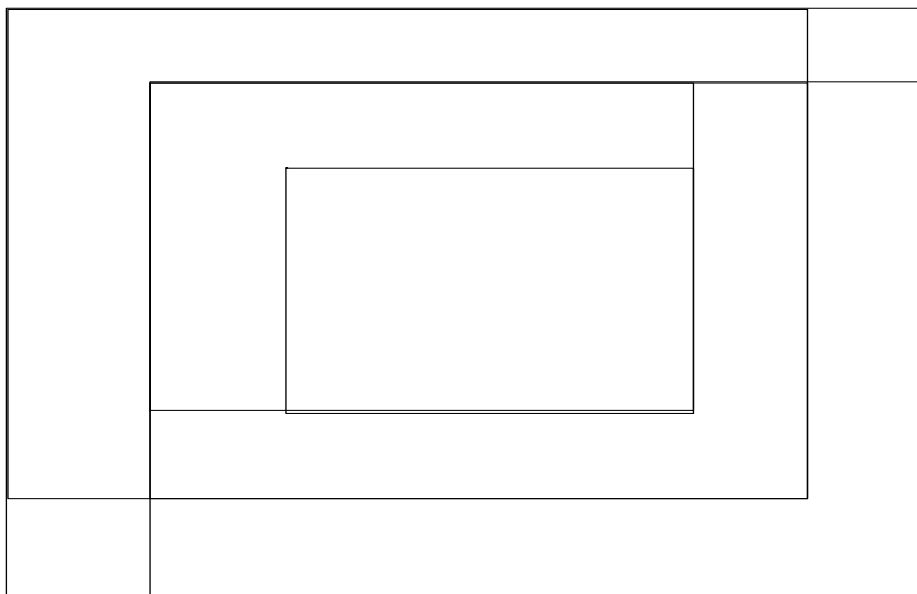
The image shows a collection of geometric shapes arranged in two rows. The top row contains four shapes: a vertical rectangle, a trapezoid, a circle, and a square. The bottom row contains three shapes: a pentagon, a parallelogram, and a triangle. The instruction above the shapes asks the student to outline the quadrilaterals with a marker.

Formative assessment for above group:

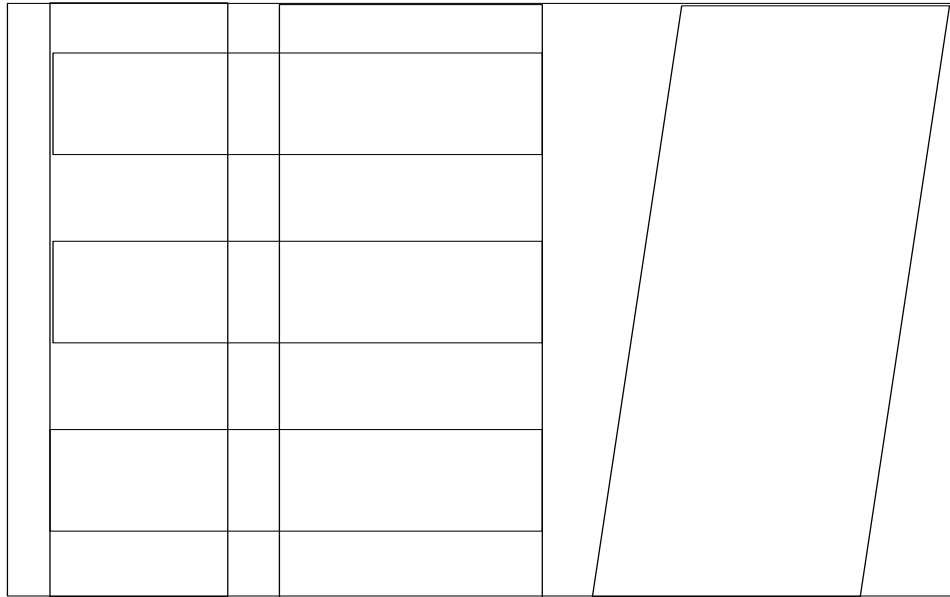
Outline the shapes that are quadrilaterals with a marker.
Color any squares orange and any rectangles blue.



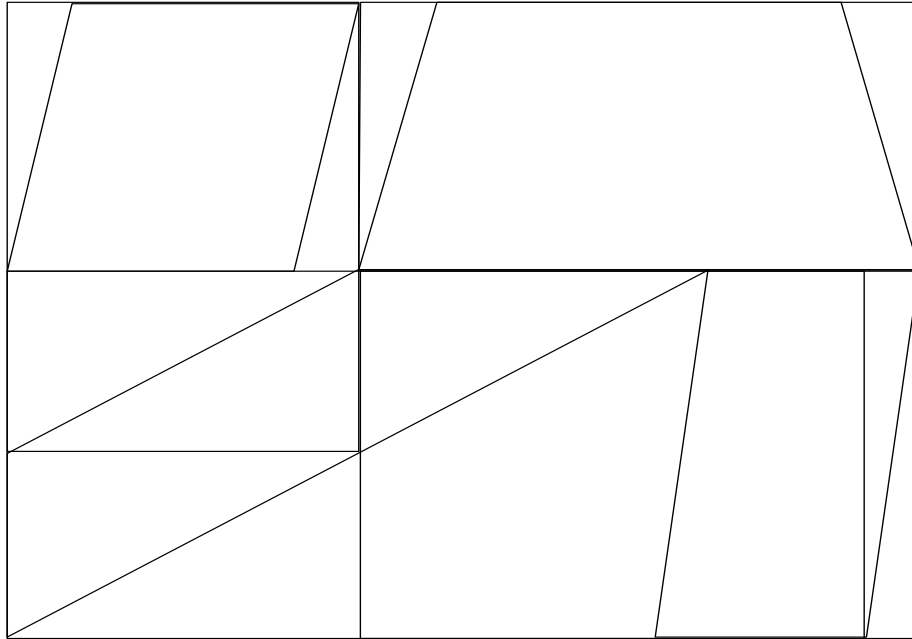
Below group: count the quadrilaterals:



On track group: count the quadrilaterals:



Above group: count the quadrilaterals:



Day 2 Directions:

Below:

- With Teacher: Using the geoboard and rubber bands, I will show the students different rectangles. The students should think in their brain and make a prediction as to what they think is the definition of a rectangle. Some question that I will use to prompt their thinking include: What do these quadrilaterals have in common? How are they different from other kinds of quadrilaterals? I will use the geoboard as a guide to show equal lengths on opposite sides. After reflection and discussion, the students will write their own definition on their reference sheet. (their definitions must be like this: 2 long sides and 2 short sides, sides of equal length are opposite of each other. All the corners are the same size). The students will practice drawing rectangles on a scratch sheet of paper. I will be constantly checking and providing support for students as they draw (clarifying questions, challenging drawings, etc.).
 - Formative Assessment- drawing rectangles
- Alone: The students will use rectangles to complete the puzzle. They will be given the exact combination of pattern blocks that they should use.

- Technology: Use google draw to create pattern block puzzles that use rectangles.

On Track:

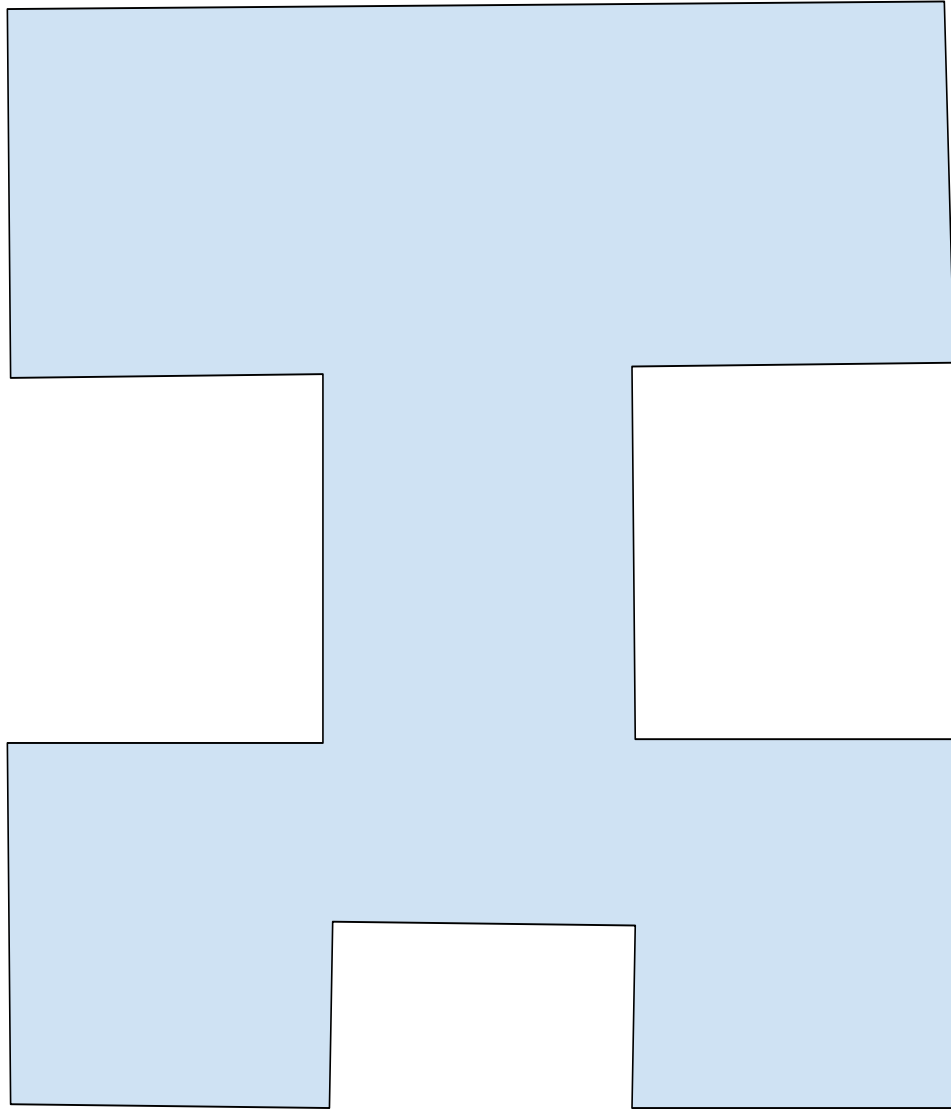
- With Teacher: Same activity as below. In addition, I will follow the same process of reflection and discussion to add the definition of square to the reference sheet. (All sides and all corners are the same size). I will ask the students if a square is a rectangle and if a rectangle is a square? Through discussion, I will guide the students to understanding that a square is always a rectangle, but a rectangle is not always a square. The students will practice drawing squares and rectangles with teacher support and guidance.
 - Formative Assessment- drawing squares and rectangles
- Alone: The students will use only rectangle and square pattern block to fill the pattern block puzzle mat. They should try to do it a different way after completing it the first time.
- Technology: Use google draw to create pattern block puzzles that use rectangles and squares.

Above:

- With Teacher: I will use the geoboard to show the students parallelograms. I will ask the students what is different about this quadrilateral from squares and rectangles. Through reflection and discussion, I will guide them to the conclusion that not all the corners or points or angles (vocab) are equal. In a parallelogram, opposite corners (angles) are equal. They will write this definition on their reference sheet. The students will practice drawing parallelograms on a piece of paper with teacher guidance and support. Through discussion, the students will explore that a square and a rectangle are a parallelogram, but a parallelogram is not always a square or rectangle.
 - Formative assessment- Drawing parallelograms
- Alone: The students will use squares, rectangles, and parallelograms to complete the pattern block puzzle mat. They will be given a baggie of many different pattern blocks, so they will need to use critical thinking to decide which ones to use.
- Technology: Use google draw to create pattern block puzzles that use rectangles, squares, and parallelograms.

Resources:

Pattern block puzzle mat



Day 3 Directions:

Below:

- With Teacher: I will introduce the term square. I will use the geoboard to show the students the difference between a rectangle and a square. I will show the students that a square is a shape in which all the angles and the sides are the same (equal). A square is always a rectangle but a rectangle is not always a square. Students will use the geoboards

to manipulate the rubber bands to form squares out of existing rectangles. Students will add the definition of square to their reference sheet.

- Formative Assessment- The students should write a 321 exit slip.
- Alone: Using the geoboard and rubber bands, the students will create rubber quadrilaterals that they have learned about in small groups with teacher on previous days. They should use different colored rubber band for the different shapes. The students can use their reference page to see which quadrilaterals are which. (Rectangles)
- Technology: <https://www.ixl.com/math/grade-3> Play “identify rectangles.” Students should use their reference sheet as a tool to help them as they complete the activities.

On Track:

- With Teacher: Introduce the term parallelogram. I will tell the students that a parallelogram is another type of quadrilateral. In this type of quadrilateral, opposite sides and opposite angles are equal. I will ask the students to make connections in their brain between this type of quadrilateral and the others that they know. Is a square a parallelogram? Is a rectangle a parallelogram? How do you know? The students should add their own definition of parallelogram to their reference sheet.
 - Formative Assessment- The students should write a 321 exit slip.
- Alone: Using the geoboard and rubber bands, the students will create rubber quadrilaterals that they have learned about in small groups with teacher on previous days. They should use different colored rubber band for the different shapes. (Rectangles, squares).
- Technology: <https://www.ixl.com/math/grade-3> Play “identify parallelograms.” Students should use their reference sheet as a tool to help them as they complete the activities.

Above:

- With Teacher: Introduce the term rhombus. I will tell the students that a rhombus is another type of quadrilateral. In this type of quadrilateral, opposite angles are equal and all sides are equal. I will ask the students to make connections in their brain between this type of quadrilateral and the others that they know. Is a square a rhombus? Is a rectangle a rhombus? Is a rhombus a parallelogram? How do you know? The students should add their own definition of parallelogram to their reference sheet.
 - Formative Assessment- The students should write a 321 exit slip

- Alone: Using the geoboard and rubber bands, the students will create rubber quadrilaterals that they have learned about in small groups with teacher on previous days. They should use different colored rubber band for the different shapes. (Rectangles, squares, parallelograms).
- Technology: <https://www.ixl.com/math/grade-3> Play “identify rhombuses.” Students should use their reference sheet as a tool to help them as they complete the activities

Resources:

Formative Assessment

Name: _____

Three things I learned are... _____

Two things I found interesting are... _____

One question I have is... _____

Day 4 Directions:

Below:

- With Teacher: I will show the students a parallelogram as I tell them that this is another type of quadrilateral. I will tell the students that a parallelogram is a type of quadrilateral that the opposite sides and angles are equal. They will write their definition on their

reference sheet. I will show the students that rectangles and squares are parallelograms because they fit the definition.

- Formative Assessment- Circle all the parallelograms on the assessment.
- Alone: Students will use the examples of quadrilaterals that they have learned so far on their reference sheet to create the shapes out of play dough. Each color of play dough should represent a different type of quadrilateral. The students should record their creations on a piece of paper.
- Technology: <https://www.mathgames.com/skill/3.4-classify-quadrilateral-shapes> The students will play the game “compare sides and corners.”

On Track:

- With Teacher: I will show the students a rhombus as I tell them that this is another type of quadrilateral. I will tell the students that a rhombus is a type of quadrilateral that the all sides and opposite angles are equal. They will write their definition on their reference sheet. I will show the students that some parallelograms and squares are parallelograms because they fit the definition.
 - Formative Assessment- Circle all the rhombuses on the assessment.
- Alone: Students will use the examples of quadrilaterals that they have learned so far on their reference sheet to create the shapes out of play dough. Each color of play dough should represent a different type of quadrilateral. The students should record their creations on a piece of paper.
- Technology: <https://www.mathgames.com/skill/3.4-classify-quadrilateral-shapes> the students will play “classify quadrilaterals” and should use their reference sheet as a tool.

Above:

- With Teacher: I will show the students a trapezoid as I tell them that this is another type of quadrilateral. I will tell the students that a trapezoid is a type of quadrilateral that has 2 parallel sides (parallel means going in the same direction). They will write their definition on their reference sheet. I will draw pictures of various trapezoids to demonstrate what it is.
 - Formative Assessment- Circle all the trapezoids on the assessment.
- Alone: Students will use the examples of quadrilaterals that they have learned so far on their reference sheet to create the shapes out of play dough. Each color of play dough

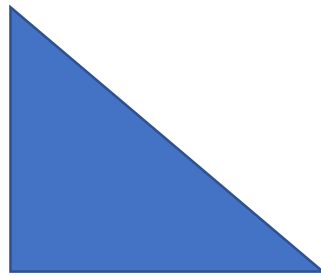
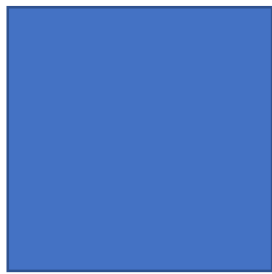
should represent a different type of quadrilateral. The students should record their creations on a piece of paper.

- Technology: <https://www.mathgames.com/skill/3.4-classify-quadrilateral-shapes> the students will play “classify quadrilaterals” and should challenge themselves to complete the activities without their reference sheet.

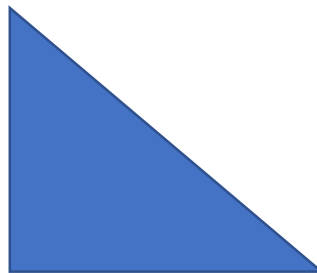
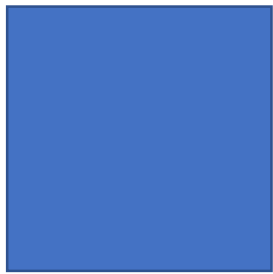
Resources:

Formative Assessments:

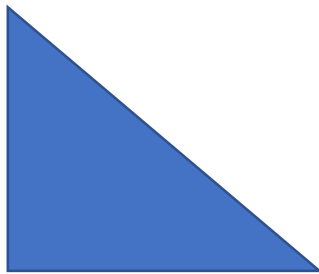
Circle all the parallelograms:



Circle all the rhombuses:



Circle all the trapezoids:



Day 5 Directions:

Below:

- With Teacher: First, I will introduce the shape “rhombus.” I will show the students that a rhombus is a parallelogram that has equal length of all sides. I will ask the students to make connections to what they’ve seen in real life that looks like a rhombus (diamond, kite, etc.) I will ask the students if any other shape that we have previously talked about this week can be classified as a rhombus (square). The students should add the definition of a rhombus to their reference sheet. I will create an anchor chart as I have a conversation with the students. An example of the anchor chart form is in the resources.

- Formative Assessment- Using their reference sheet and the anchor chart, the students will complete the exit slip.
- Alone: The students will cut out the shapes and definitions and glue them onto the correct spot on the diagram.
- Technology: Students have the choice of any of the games/ activities they've done already this week.

On Track:

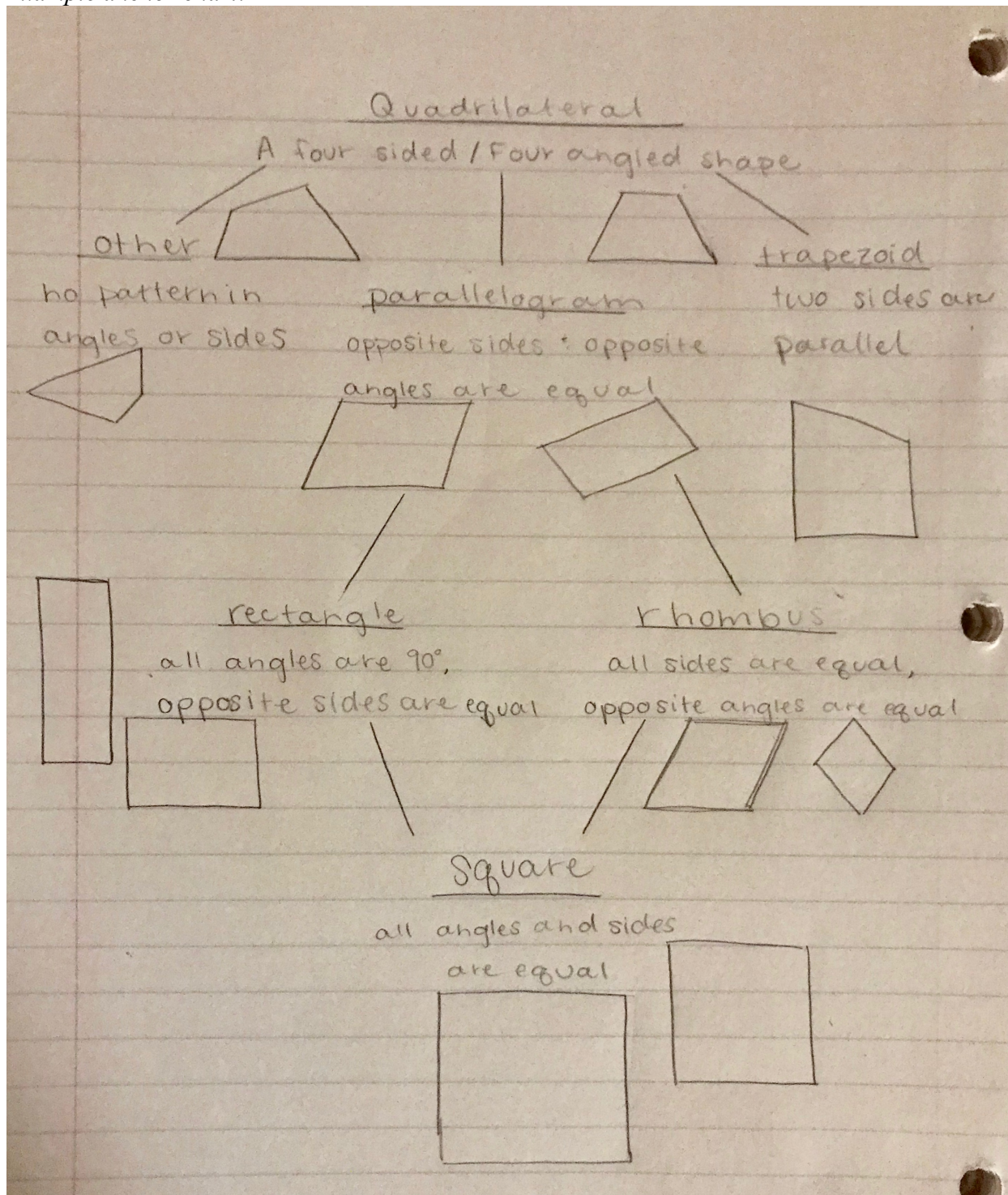
- With Teacher: First, I will introduce the shape "trapezoid." I will show the students that trapezoid is a shape that has two parallel sides (parallel is going in the same direction). The students should add the definition of a trapezoid to their reference sheet. I will create an anchor chart as I have a conversation with the students. An example of the anchor chart form is in the resources.
 - Formative Assessment- Using their reference sheet and the anchor chart, the students will complete the exit slip.
- Alone: Students will cut out the shapes and definitions and glue them onto the correct spot on the diagram. The student will draw other examples of each category.
- Technology: Students have the choice of any of the games/ activities they've done already this week.

Above:

- With Teacher: I will review the different types of quadrilaterals that we have learned this week. I will create an anchor chart as I have a conversation with the students. An example of the anchor chart form is in the resources. I will extend the learning by asking the students if they can think of a quadrilateral that does not fit any of these categories? I will support the students as they draw them.
 - Formative Assessment- Using their reference sheet and the anchor chart, the students will complete the exit slip.
- Alone: Students will cut out the shapes and definitions and glue them onto the correct spot on the diagram. The student will draw another example of each category. The students will also draw other shapes that do not fit these categories.
- Technology: Students have the choice of any of the games/ activities they've done already this week.

Resources:

Example anchor chart:



For below- only quadrilateral, parallelogram, rectangle, rhombus, and square.

For on track and above- all

Alone activity.

Name: _____

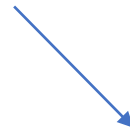
Quadrilateral



Parallelogram



Rectangle



Rhombus



Square



A four sided and four angled shape	Opposite sides and opposite angles are equal
All sides and all angles are equal	All sides are equal and opposite angles are equal
Opposite sides are equal, all angles are equal	




Formative assessment: Below

Circle True or False: Name: _____

1. Squares, rhombuses, rectangles, and parallelograms are examples of quadrilaterals.


True False

2. This shape can be called a rectangle and a parallelogram.



True False

3. All these shapes are quadrilaterals.



True False


Formative assessment: On Track

Circle True or False: Name: _____

1. Squares, rhombuses, rectangles, and parallelograms, and trapezoids are examples of quadrilaterals.


True False

2. This shape can be called a rectangle and a parallelogram.



True False

3. All these shapes are quadrilaterals.



True False

Circle True or False:

Name: _____

1. Squares, rhombuses, rectangles, and parallelograms are examples of quadrilaterals.

True

False

2. This shape can be called a rectangle and a parallelogram.



True

False

3. A rhombus is always a square. A square is not always a rhombus.

True

False