

TIME TO SHAPE UP—

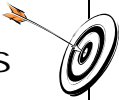


THE GREEDY TRIANGLE

LESSON 3

$E=MC^2$

Big Mathematical Ideas

Students are familiar with classic three- and four-sided shapes, but what happens when shapes have more sides? Do they have names? Students look beyond triangles and learn the names of multi-sided polygons through children's literature.

<p>Lesson Objectives</p> 	<ul style="list-style-type: none"> • Students will be able to determine a shape's name using a given number of sides. • Students will be able to relate the number of sides to the number of angles. • Students will be able to create a story about a figure that changes its shape but DOES NOT change its number of sides.
<p>Materials</p> 	<ul style="list-style-type: none"> • Children's Book—<i>The Greedy Triangle</i> by Marilyn Burns • Student Page—<i>The Greedy Triangle</i> [SMJ page 19] • Student Page—<i>Design Your Own Shape Story</i> [SMJ page 23] <ul style="list-style-type: none"> ○ Make extra copies of the story pages for students who write longer stories. • Student Page—<i>The Annual Shape Party</i> [SMJ page 29]
<p>Mathematical Language</p> 	<ul style="list-style-type: none"> • Polygon: A closed figure formed by three or more line segments. <i>[Students may think of these as shapes; however, it is important to note that round shapes are not polygons.]</i> • Triangle: A polygon with three sides. • Quadrilateral: A polygon with four sides. • Pentagon: A polygon with five sides. • Hexagon: A polygon with six sides. • Heptagon: A polygon with seven sides. • Octagon: A polygon with eight sides. • Nonagon: A polygon with nine sides. • Decagon: A polygon with ten sides.



Lesson Preview

Students explore polygons through children’s literature. They learn the pronunciations and meanings of shapes as classified by the number of sides. This lesson provides an introduction to the relationship between sides and angles of geometric figures.



Initiate

- 1. Pre-assess knowledge of polygon names**
Direct students to *The Greedy Triangle* Student Page.

Direct students to fill in (IN PENCIL) the names of the shapes that they know. Circulate during this activity to determine students’ familiarity with the polygon names. This information will be helpful in determining task readiness in Lesson 4. During the story, students fill in the names of the remaining polygons and make corrections to this work.



Investigate

- 2. *The Greedy Triangle***
Read students the story *The Greedy Triangle*. As you read, direct students to fill in their tables with the name of each shape. Each time the shape is transformed, stop the story and write the new shape name on the board to demonstrate correct spelling. Practice pronouncing the polygon names as a class.
- 3. *The Greedy Triangle* questions**
Direct students to complete *The Greedy Triangle* questions and the *Design Your Own Shape Story* Student Page.



Conclude

- 4. Student stories**
Ask students to share the stories they wrote as part of **Investigate #3**. Focus conversation on how all shapes in their stories are quadrilaterals because they have four sides, but they are different types of quadrilaterals.



Look Ahead

- 5. General vs. specific polygons**
Polygons can have general names, such as *quadrilateral*, as seen in *The Greedy Triangle*, or more specific names, such as *square* and *rectangle*. Now that students are acquainted with polygons as named by the number of sides, they can look more at specific types of quadrilaterals in the following lesson.



Assess

- 6. A quick check on polygon names**

Challenge students to remember as many of the polygon names as they can before the next class. When they come in the next day, determine how much they have learned using questions like, “What do you call a polygon with 5 sides?”

- 7. Extension to number and operation**

Direct students to complete *The Annual Shape Party Student Page*. This lesson focuses on the use of repeated addition for students who have not yet learned to multiply. Students who know basic multiplication tables may be able to complete the assignment more efficiently. Emphasis should be placed on the methods students use to get their answers as different solution methods are possible.

Shape Author: _____

The Greedy Triangle (Burns, 1995)

Directions: Write the names of the shapes you know and then fill in the rest as your teacher reads the story.

Name of Shape	Number of Sides	Number of Angles
	3	
	4	
	5	
	6	
	7	
	8	
	9	
	10	



Directions: Use your table and details from the story to answer each question.

1. What is a shape with 8 sides called? _____

2. How many sides does a pentagon have? _____

3. How many angles does a heptagon have? _____

4. What is true about the number of sides and the number of angles in a shape?

5. Why do you think the book is called *The Greedy Triangle*?

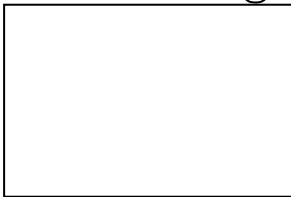
Burns, M. (1995.) *The greedy triangle*. New York: Scholastic Press.



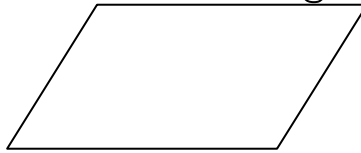
Design Your Own Shape Story



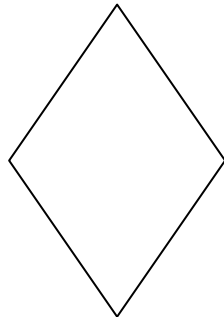
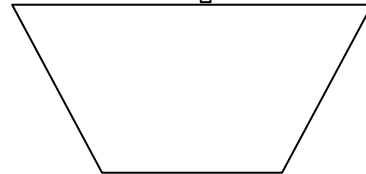
Rectangle



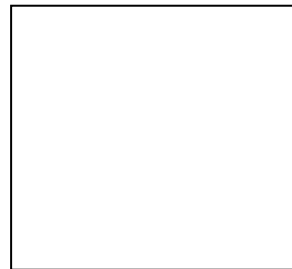
Parallelogram



Trapezoid



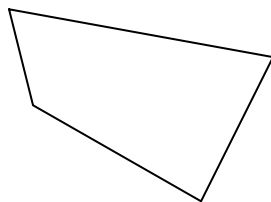
Rhombus



Square

Directions:

1. Write a story about the quadrilateral in the picture below. (Don't forget to give your shape a name!)

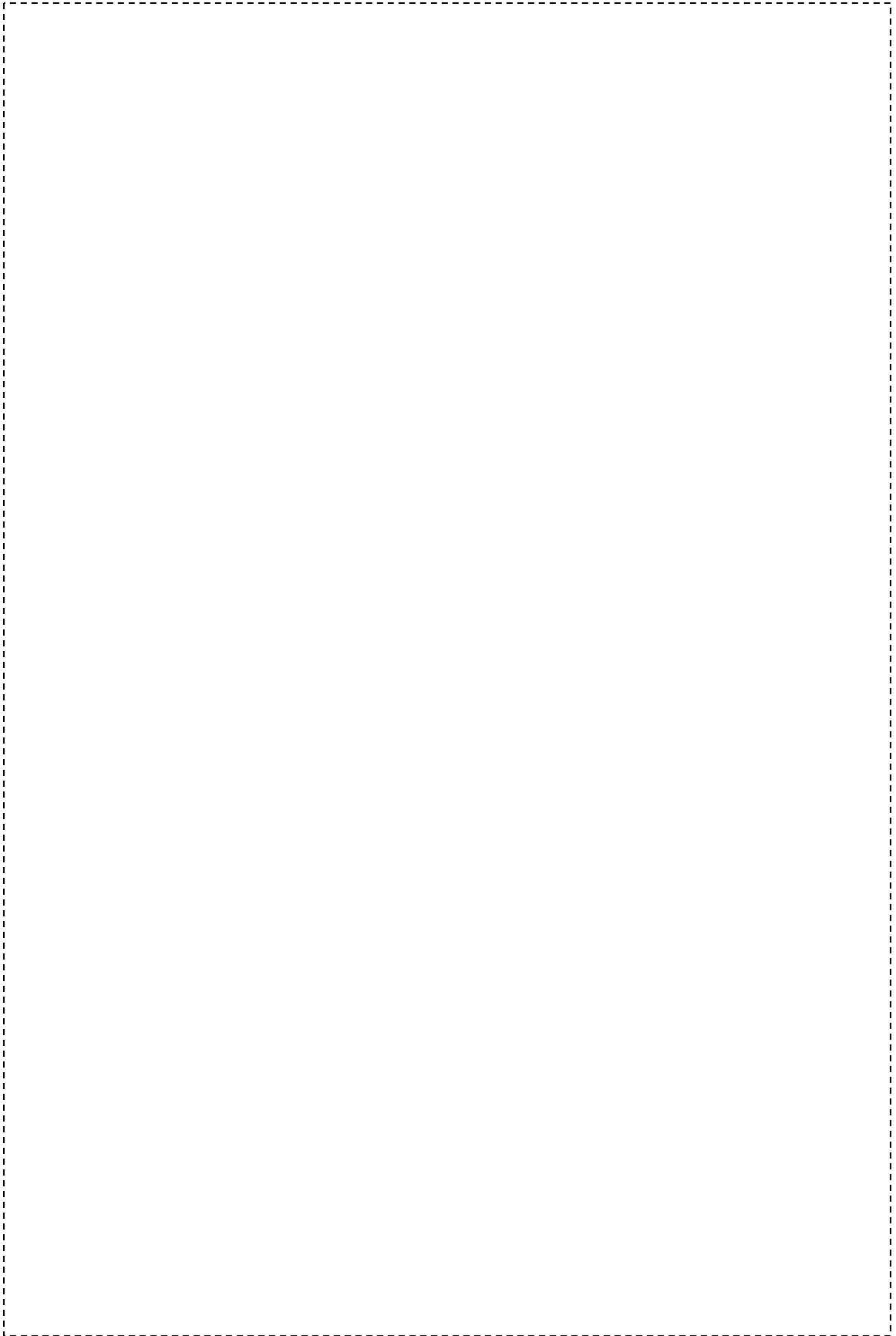


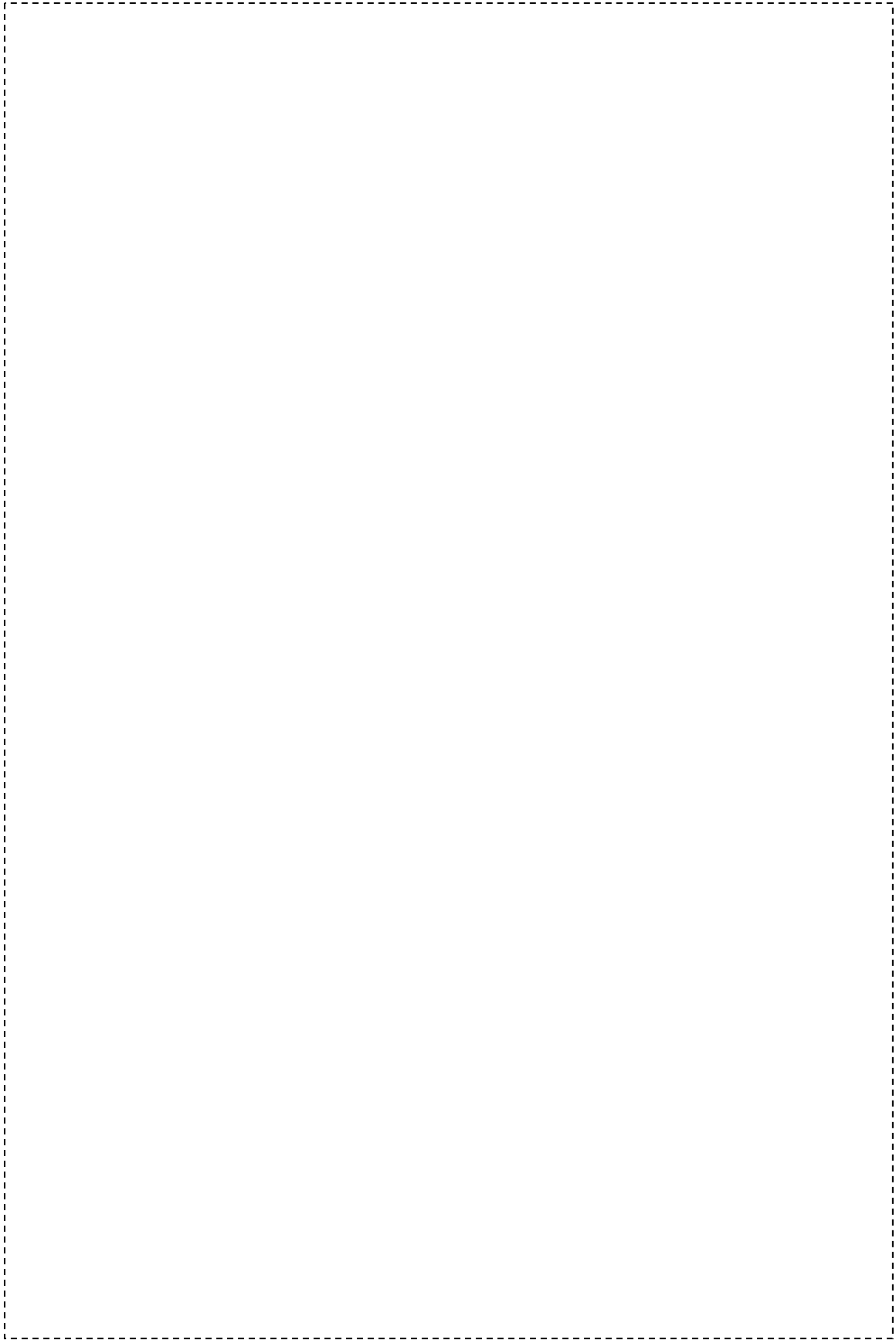
2. In your story the quadrilateral must change into each of the 5 different quadrilaterals at the top of this page.
3. As the quadrilateral changes, tell what makes it similar or different from its previous shape using terms like sides, angles, and vertices.
4. You may cut the pictures out to use in your story, or you may draw your own.
5. In the beginning of your story, tell why the quadrilateral is not happy and wants to change.

Use the lined pages to write your story and the blank pages for illustrations. Staple your pages together.

A large rectangular area enclosed by a dashed border, containing 20 horizontal lines for writing. The lines are evenly spaced and extend across most of the width of the dashed box.

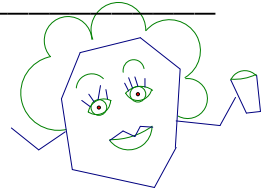
A large rectangular area with a dashed border, containing 20 horizontal lines for writing. The lines are evenly spaced and extend across most of the width of the dashed box.





Angle Accountant: _____

The Annual Shape Party



At the annual shape party, shapes gather to have fun. This year's host, Helena Heptagon, has offered a prize to the first person who figures out how many angles are in the room. No guessing!! Helena wants to see how you got your answer.

The guests include:

2 circles, 4 triangles, 3 quadrilaterals, 7 pentagons, 1 hexagon, 2 heptagons (including Helena), and 3 octagons

Use the space below to calculate the total number of angles in the room. You may draw pictures to help you.

There are _____ angles in the room all together.

The Greedy Triangle (Burns, 1995) **ANSWER KEY**

Directions: Write the names of the shapes you know and then fill in the rest as your teacher reads the story.

Name of Shape	Number of Sides	Number of Angles
TRIANGLE	3	3
QUADRILATERAL	4	4
PENTAGON	5	5
HEXAGON	6	6
HEPTAGON	7	7
OCTAGON	8	8
NONAGON	9	9
DECAGON	10	10



Directions: Use your table and details from the story to answer each question.

1. What is a shape with 8 sides called? OCTAGON
2. How many sides does a pentagon have? 5 SIDES
3. How many angles does a heptagon have? 7 ANGLES

4. What is true about the number of sides and the number of angles in a shape?

SAMPLE ANSWER: THE NUMBER OF SIDES AND THE NUMBER OF ANGLES ARE EQUAL.

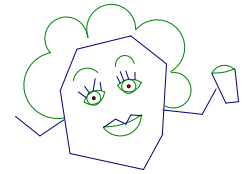
5. Why do you think the book is called *The Greedy Triangle* (Burns, 1995)?

SAMPLE ANSWER: THE BOOK IS CALLED THE GREEDY TRIANGLE BECAUSE THE SHAPE ALWAYS WANTS MORE SIDES AND GREEDY MEANS TO WANT MORE.

Burns, M. 1995. *The Greedy Triangle*. Scholastic Press: New York.

The Annual Shape Party

ANSWER KEY



At the annual shape party, shapes gather to have fun. This year's host, Helena Heptagon, has offered a prize to the first person who figures out how many angles are in the room. No guessing!! Helena wants to see how you got your answer.

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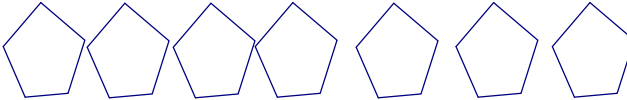
Use the space below to calculate the total number of angles in the room. You may draw pictures to help you.


SAMPLE ANSWER:

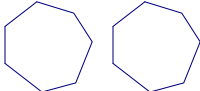
2 CIRCLES:  0 ANGLES

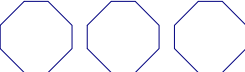
4 TRIANGLES:  $3 + 3 + 3 + 3 = 12$ ANGLES

3 QUADRILATERALS:  $4 + 4 + 4 = 12$ ANGLES

7 PENTAGONS: 
 $5 + 5 + 5 + 5 + 5 + 5 + 5 = 35$ ANGLES

1 HEXAGON:  6 ANGLES

2 HEPTAGONS:  $7 + 7 = 14$ ANGLES

3 OCTAGONS:  $8 + 8 + 8 = 24$ ANGLES

TOTAL ANGLES = $0 + 12 + 12 + 35 + 6 + 14 + 24 = 103$ ANGLES

There are 103 angles in the room all together.




TIME TO SHAPE UP— THE RECTANGLES ONLY CLUB!

LESSON 4

$E=MC^2$

Big Mathematical Ideas

It is difficult to talk about shapes because they can be named very generally, such as *quadrilateral*, or very specifically, such as *rhombus*. One of the most difficult relationships for students to understand is that of square and rectangle. Many students believe that a rectangle must have sides of different lengths. By definition, however, rectangles have four sides and four right angles, a definition that also includes squares.

<p>Lesson Objectives</p> 	<ul style="list-style-type: none"> Students will be able to define attributes and distinguishing properties of squares, rectangles, and rhombuses.
<p>Materials</p> 	<ul style="list-style-type: none"> Student Page—<i>Play: The Rectangles Only Club!</i> [SMJ page 31] Student Page—<i>The Rectangles Only Club!</i> (Hypatia and Euclid versions) [SMJ pages 33-35] Student Page—<i>More Shapes, More Sides</i> [SMJ page 37]
<p>Mathematical Language</p> 	<ul style="list-style-type: none"> ✓ Revisit the definition of quadrilateral from previous lesson. ✓ Revisit the concept of right angle, especially in the context of a shape. • Congruent sides: Sides of equal length. • Rhombus: A quadrilateral with four sides of equal length. • Rectangle: A quadrilateral with four equal angles. • Square: A quadrilateral with four sides of equal length and four right angles.



Lesson Preview

Students grapple with the idea that a square is always a rectangle because it has four sides and four right angles. They discover that the converse is not true. A rectangle is only a square if it has four congruent sides.



Initiate

1.

Is it more than a rectangle?

Draw a rectangle (that is not a square) on the board. Use the following questions to develop a temporary definition. Instruct students to use the table from the previous lesson. Do not give the “true” definition of rectangle yet.

- What is the name of this shape? (*Quadrilateral, Rectangle*)
- Does it have any other names? (*Quadrilateral, Parallelogram*)
- How do you know it is that shape? (*Four sides, four right angles, opposite sides equal length*)
- Can you define it?
 - *Use student suggestions. Definition can be modified as students’ ideas develop throughout the lesson.*

Students’ responses during this initiation can help designate task assignments. Students who recall other names for the figure and its properties should be directed to the Euclid version of the Student Page. Students whose knowledge is limited to “rectangle” should work on the Hypatia version of the Student Page.



Investigate

2.

A rectangle play

Read *The Rectangles Only Club* play with students. If students have never read a play before, go over the directions that precede the play. Students reading the roles can hold “shape puppets” from Lesson 1 to indicate whether they are playing the role of a square or a rectangle.

3.

Comparing characteristics

Once students have read the play, introduce the definitions of rectangle, rhombus, and square. Have students practice drawing rectangles and rhombuses. Be sure the definitions are posted clearly so students can refer to them as they answer the questions. Organize students into Hypatia and Euclid groups. Use student performance on the initiation and previous two lessons to designate group assignments.

- Have students answer questions on *The Rectangles Only Club* Student Page in their groups.
- Discuss students’ responses by circulating around the room and talking to individual groups. Look for students to challenge each other’s thinking during this discussion and try to develop the understanding that a square is both a rhombus and a rectangle.

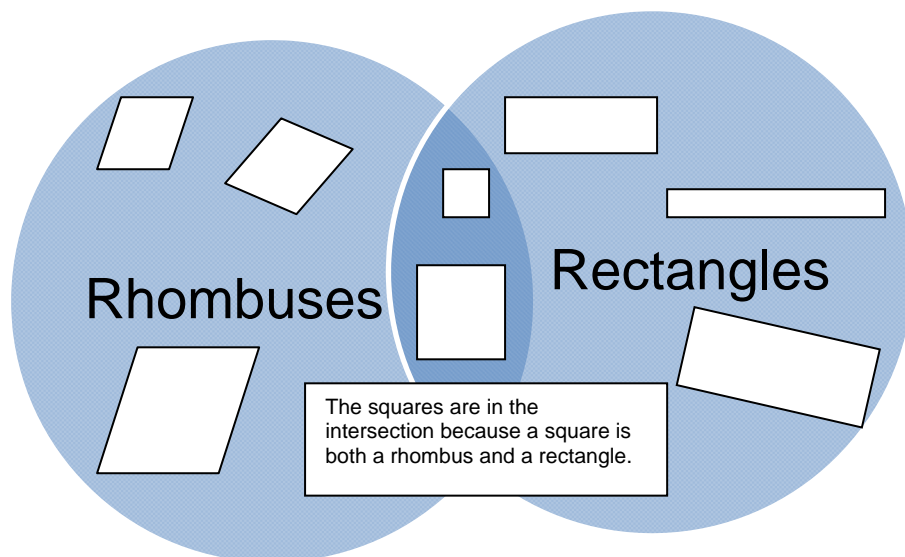


Conclude

4.

The truth about squares

Do a final wrap-up to emphasize that squares are always rectangles and rhombuses, but the reverse is not true. Rectangles and rhombuses DO NOT have to be squares. A simple Venn diagram might help visual learners.



- Challenge students to determine why the squares are in the intersection of the Venn diagram and why the other shapes are not.



Assess

5.

Square, rectangle, rhombus

Distribute paper. Ask students to perform the following tasks:

- Draw a rectangle that is not a square.
- Draw a rectangle that is also a rhombus. (*This should be a square.*)

Questions to scaffold for student understanding:

- *What does it mean to be a rectangle?*
- *What does it mean to be a rhombus?*
- *What does it mean to be both? What characteristics must be present?*
- Draw a rhombus that is not a square.
- Draw a square that is not a rhombus. (*This is impossible but reinforces the concepts of today's lesson. Allow students to try this and discuss reasons why this is impossible.*)

6.

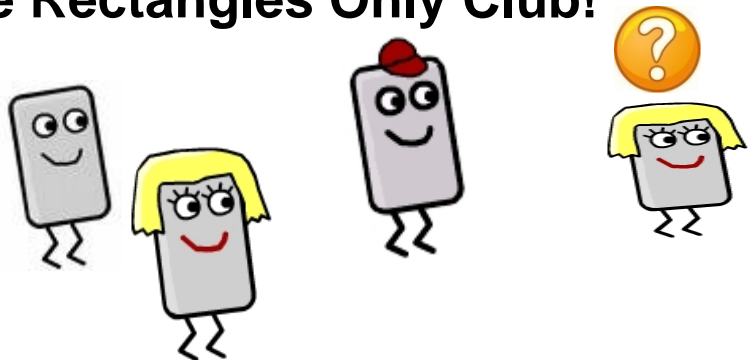
Extension to number and operation

Students complete the *More Shapes, More Sides* Student Page. This exercise gets students thinking about the efficiency of multiplication. It also requires some “backwards thinking,” the basis for inverse operations.

Play: The Rectangles Only Club!

Characters:

Rosie Rectangle
Robert Rectangle
Rashawn Rectangle
Sally Square



How to Read a Play:

- 1) The name in front of the colon tells who should read the line.
EXAMPLE—Rosie would read this line without reading her name:
Rosie: I'm bored.
- 2) The *italicized* words ARE NOT read out loud! They tell the reader WHAT to do.

Play: The Rectangles Only Club!

Rosie: I'm bored. School is over and I have nothing to do. Being a rectangle is so boring. Maybe I'll call Robert.
(Holds up pretend phone and calls Robert)

Robert: Hello.
(Holds up pretend phone.)

Rosie: Hi, Robert. I'm just calling because I'm bored. What should rectangles like us do on such an afternoon?

Robert: I'm bored, too. Let me call Rashawn, and we can all meet at my house to decide what to do.

Rosie: Good idea. I'll see you there.
(Robert calls Rashawn)

Rashawn: Hello.
(Holds up pretend phone.)

Robert: Hi, Rashawn. Rosie is coming over and we want you to come, too. That way, we'll have three rectangles together, and we can find something to do.

Rashawn: Good idea. I'll be right over.

(The three rectangles meet at Robert's house.)

Rosie: So, what should we do?

Rashawn: How about building a clubhouse?

Robert: Yeah! What should we call it?

Rosie: How about the Rectangles Only Club?

Robert: That's a great name!

(The 3 rectangles begin building their clubhouse. Sally Square walks by.)

Sally: Hey, what are you doing?

Rashawn: We're building a Rectangles Only Club. Do you want to help?

Sally: Wow, that sounds fun, but I'm just a square.

Rosie: You're not just a square! You're a rectangle, too!

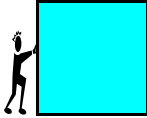
Sally: What do you mean? My sides are all the same length and yours are different.

Robert: Yeah, but to be a rectangle, all you need are 4 sides and 4 right angles!

Sally: Wow! Does that mean you are squares?

Quadrilateral Judge: _____

The Rectangles Only Club!



1.) How should Robert answer Sally at the end of the play? Why?

2.) The Rectangles and the Rhombuses have decided to have their own baseball teams. The rules for joining are:

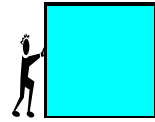
- To be on the Rectangle team, you must fit the definition of Rectangle.
Rectangle—A quadrilateral with 4 right angles
- To be on the Rhombus team, you must fit the definition of a Rhombus.
Rhombus—A quadrilateral with 4 sides the same length.

Samuel Square would like to join one of the teams. Which team can he join? Explain your answer.

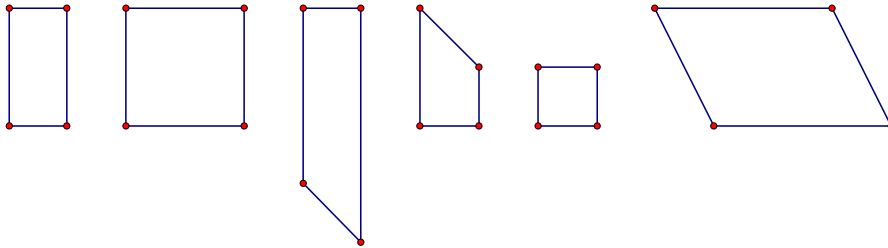


Quadrilateral Judge: _____

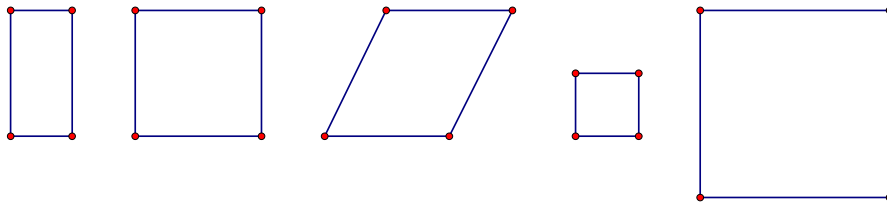
The Rectangles Only Club!



1.) A rectangle has to have 4 sides and 4 right angles. Circle all of the rectangles you see.



2.) A square has to have 4 sides that are the SAME LENGTH and 4 right angles. Circle all of the squares you see.



3.) Is it possible to draw a square that is not a rectangle?

Yes No

4.) Is it possible to draw a square that is not a rhombus?

Yes No

5.) Is it possible to draw a rectangle that is not a square?

Yes No

6.) How should Robert answer Sally at the end of the play? Why?

Side Searcher: _____

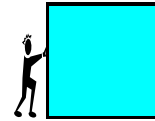
More Shapes, More Sides

Directions: Fill in the columns below so that the number of triangles matches the total number of sides.		Directions: Fill in the columns below so that the number of quadrilaterals matches the total number of sides.	
Number of Triangles	Total Number of Sides	Number of Quadrilaterals	Total Number of Sides
2	6	7	28
5	15	3	12
7		5	
9		1	
1		12	
10		8	
14		15	
	9		8
	12		16
	18		24

Explain why you cannot have a group of quadrilaterals with a total of 13 sides.

The Rectangles Only Club!

ANSWER KEY



1.) How should Robert answer Sally at the end of the play? Why?

Sample Answer: The definition of rectangle states that you have to be a quadrilateral with four right angles. That means you are a rectangle. Squares are special. They have to have four sides the same length while ours are different. That means we can't be squares.

2.) The Rectangles and the Rhombuses have decided to have their own baseball teams. The rules for joining are:

- To be on the Rectangle team, you must fit the definition of Rectangle.

Rectangle—A quadrilateral with 4 right angles

- To be on the Rhombus team, you must fit the definition of a Rhombus.

Rhombus—A quadrilateral with 4 sides the same length.

Samuel Square would like to join one of the teams. Which team can he join? Explain your answer.

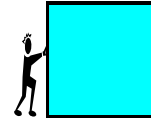


Sample Answer: Samuel Square can join either team. Therefore, acceptable answers include rectangle, rhombus, or either. Look for the following justifications:

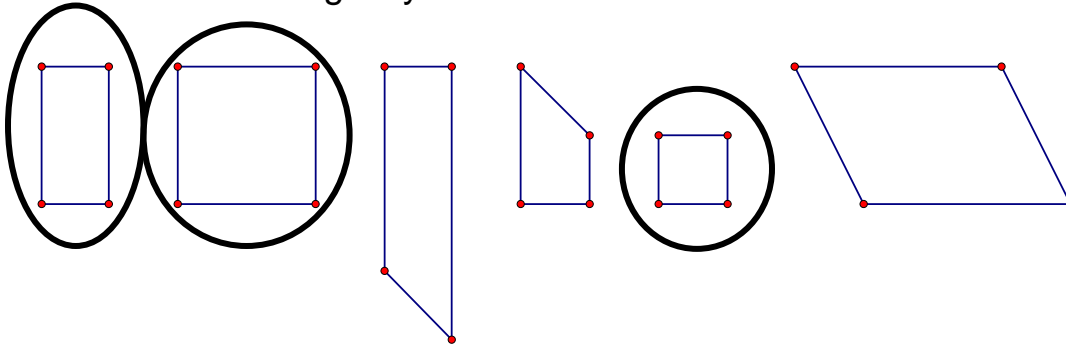
- Samuel Square can join the rectangle team because a square is a quadrilateral with 4 right angles.
- Samuel Square can join the rhombus team because a square is a quadrilateral with 4 sides the same length.
- Samuel Square can join either team because a square is a quadrilateral and has 4 right angles like a rectangle and 4 sides the same length like a rhombus.

The Rectangles Only Club!

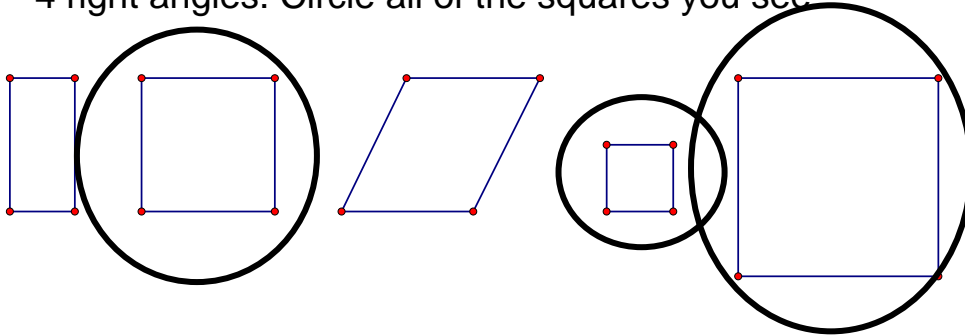
ANSWER KEY



1.) A rectangle has to have 4 sides and 4 right angles. Circle all of the rectangles you see.



2.) A square has to have 4 sides that are the SAME LENGTH and 4 right angles. Circle all of the squares you see.



3.) Is it possible to draw a square that is not a rectangle?

Yes No

4.) Is it possible to draw a square that is not a rhombus?

Yes No

5.) Is it possible to draw a rectangle that is not a square?

Yes No

6.) How should Robert answer Sally at the end of the play? Why?

Sample Answer: The definition of rectangle states that you have to be a quadrilateral with four right angles. That means you are a rectangle. Squares are special. They have to have four sides the same length while ours are different. That means we can't be squares.

More Shapes, More Sides

ANSWER KEY

Directions: Fill in the columns below so that the number of triangles matches the total number of sides.		Directions: Fill in the columns below so that the number of quadrilaterals matches the total number of sides.	
Number of Triangles	Total Number of Sides	Number of Quadrilaterals	Total Number of Sides
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5	15	3	12
7	21	5	20
9	27	1	4
1	3	12	48
10	30	8	32
14	42	15	60
3	9	2	8
4	12	4	16
6	18	6	24


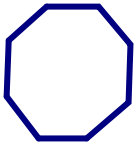
Explain why you cannot have a group of quadrilaterals with a total of 13 sides.

Sample Answer: You cannot have a group of quadrilaterals with a total of 13 sides because 1 quadrilateral has 4 sides, 2 quadrilaterals have 8 sides, 3 quadrilaterals have 12 sides, and 4 quadrilaterals have 16 sides. Since there cannot be more than 3 and fewer than 4 quadrilaterals, there is no way to make 13 sides.

Name: _____ Date: _____

Check Up 1

Fill in the missing parts of the table.

Name of Shape	Number of Sides	Number of Angles	Drawing of Shape
Triangle			
Quadrilateral			
	5		
			
			





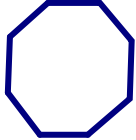
Draw an example of each type of angle.

Acute	Obtuse	Right

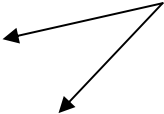
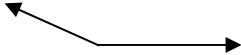

Check Up 1

ANSWER KEY

Fill in the missing parts of the table.

Name of Shape	Number of Sides	Number of Angles	Drawing of Shape
Triangle	<u>3</u>	<u>3</u>	 <u>Drawings will vary</u>
Quadrilateral	<u>4</u>	<u>4</u>	 <u>Drawings will vary</u>
<u>Pentagon</u>	<u>5</u>	<u>5</u>	 <u>Drawings will vary</u>
<u>Hexagon</u>	<u>6</u>	<u>6</u>	
<u>Octagon</u>	<u>8</u>	<u>8</u>	

Draw an example of each type of angle.

Acute	Obtuse	Right
 <u>Drawings will vary</u>	 <u>Drawings will vary</u>	 <u>Drawings will vary</u>

LESSON 1: WELCOME TO POETRY!



NOTE: For some groups of students, this lesson might take longer than the time allocated for a typical reading lesson. Because the lesson is made up of a series of activities, it can easily be broken into two separate, shorter lessons.

MATERIALS:

- Student workbooks
- Copy of *The Fish* by Elizabeth Bishop

OBJECTIVES:



Students understand that poets use concrete language and sensory detail to communicate abstract ideas, emotions and truths.

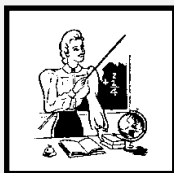
- Students develop ideas for writing.
- Students learn and use the first step in the writing process.
- Students participate as knowledgeable, reflective, creative and critical members of a literary community.

Important Vocabulary:

- Imagery
- Abstract and concrete language (antonyms: abstract-concrete)

SEQUENCE:

TEACHER NOTES:



Introductory Activity...

1. Invite students to lie down, close their eyes, and relax by taking deep breaths (continue instructing students to breathe deeply until the room is quiet). Say to students: “I am going to say a word. I want you to concentrate on the first image or picture that comes into your mind when I say the word. Try to notice as many details as you can about the picture or scene that comes into your mind. I will say the word, and then give you 30 seconds to quietly get a clear picture with lots of detail in your mind. Ready. The word is: ‘beauty.’” Time students for 30 seconds.



2. After the 30 seconds are up, ask students to write (and draw), in their workbooks, some words, phrases, and pictures that describe what they imagined. Let students know that they only have a couple of minutes to get down as much detail as they can.

This activity can also be done with students sitting at their desks with eyes closed, but the opportunity to lie down is likely to catch students’ attention and help them feel ‘looser’ for free imagining.

Make sure students have

3. Repeat steps 1 & 2 using a different abstract noun instead of 'beauty.' You might try one of these: truth; love; fear; rage; excitement. If time permits, you might repeat steps 1 & 2 with a third word.

their workbooks and something to write with already out on their desks or next to them on the floor to make the transition as smooth as possible.

Make sure students know that they will have a chance to share what they imagined with the group, but NOT YET. Their job at this stage is to get the details down quickly in their own notebooks ready for the next task.

Class discussion...



1. Gather the whole group back together. Give each student a chance to share *one* of the images they experienced. Students should share what they imagined, and some of the words they wrote down in their workbooks.

2. Ask students, "What did you notice about the responses?" Students might need some prompting, but will probably notice that everyone came up with a different image (they might also notice that people used a lot of detail, or that people used different senses in their descriptions). This observation is important, since it can lead you to introduce a big idea about poetry: i.e. Poets describe **specific** experiences using lots of **sensory detail** to communicate their ideas about something **abstract** like beauty or truth. That is, we don't experience beauty as a general category, but as we interact with specific people, events, and objects. This is the secret to writing good poetry – being able to communicate a very general, universal (abstract) idea using concrete words and images. Let students



For some groups, the teacher might need to spend a moment having students recall what makes a good listener. It might also be necessary to limit students by asking them to share "three things" about

know that they will be exploring this very important secret known by the best poets as they read and write lots of great poems over the next few weeks.

what they saw, if some are having trouble limiting their response to the main points.



3. Write the **vocabulary words** (imagery, concrete, and abstract) on the blackboard or whiteboard and explain what they mean in terms of the discussion you just had (see definitions and suggestions below). Students do not need to write these down – they will be seeing these words again later in the unit, and this is just an introduction.



Introducing vocabulary words:

- **Imagery** in poetry is the expression of sensory detail (sight, sound, smell, touch, taste). This word originates from Latin and has the same root as words such as “image”; “imagine”; “imagination”; and “imitate”, which are all concerned with creating a picture, impression, or copy of something. A good way to introduce this term would be to ask students to suggest as many words as they know that might be related to “imagery”, to list these on the board, and then to have students think about what meaning these words have in common.

After identifying that all the words have something to do with creating a picture or impression of something, introduce the meaning of “imagery” in poetry, which is what poets create by using details that connect readers to the poem through all of their senses (although mainly sight). Explain to students that in the earlier activity, when they created a picture in their minds of the word you gave them, they were using their *imaginations* to form *images*. When poets describe these images in detail, we call this *imagery*.



When discussing words related to “imagery”, some students might suggest words like “impossible” or “immature.” These are words in which the prefix “im-” (meaning “not” or the negative form of) changes the meaning of the base word. These words do not share the same root as “imagery.” It will be important to

▪ **Abstract and concrete nouns/ language:**

Concrete originates from the Latin *concretus*, from *com-* (“together”) and *crescere* (“to grow”). Originally it meant “to grow together”, or to combine, as in the building substance, concrete, which was used as far back as in Ancient Rome (although the art was “lost” for many years after that) and was made by combining water, gravel, sand, and some cement. When these ingredients are mixed together, they turn into a hard, rigid solid. Thus, when we use “concrete” as an adjective, especially when talking about language, it can mean *representing an actual substance or thing*, as opposed to **abstract** (*expressing a quality or characteristic apart from any specific object or instance*).

After explaining the origins and meaning of the word concrete and the meaning of the word abstract to students, ask them to identify what type of ‘-nym’ is represented by this pair of words (antonyms=opposite in meaning). You might also ask students to suggest synonyms (similar in meaning) for concrete (examples might include: solid, specific, actual, real, material, tangible).

Explain to or remind students that a **noun** (a “naming” word) is the name of a person, place, or thing. Explain that during this poetry unit, they will be interested in two special kinds of nouns:

Some nouns are the names of things or people that you can point to, see, or touch: e.g. chair, pickle, book, bus, elephant, doctor.

These are called **concrete nouns**.

- Some nouns refer to qualities and conditions we cannot point to or see or touch: e.g. anger, intelligence, fear.

These are called **abstract nouns**.

Based on your earlier discussion, ask students to suggest which kind of noun poets use most to create imagery (Concrete nouns).

Note: Students will have opportunities to reinforce their understanding of these terms throughout the unit, so it is fine if they do not seem to be entirely clear at this stage.

clarify this distinction for students to avoid confusion. You might do this by generating 2 lists with students; one for words sharing the same root as imagery, and another for words in which the prefix im- is at work.



Historical Context:

The type of poetry students will study in this unit is related to a movement in early 20th century Anglo-American poetry known as “Imagism.”

Imagism emphasized precise imagery, and clear, specific language (the poet Ezra Pound famously described this in terms of “luminous

details”) to connect readers to bigger ideas. This approach was a significant shift from Romantic and Victorian poetry, which favored abstract, sentimental language over concrete details grounded in the physical world.

Poetry for appreciation...



Explain to students that each lesson for the next few weeks will begin with a poetry reading, where their job is to listen and appreciate what they hear. For today’s poem, encourage students to listen for as many details as they can – not just visual details, but also those where the poet taps into the reader’s other senses to create imagery.

Read *The Fish* by Elizabeth Bishop aloud.

Afterwards, have students turn to the person next to them and share one image or phrase that stuck in their minds while listening to the poem. If time permits, you might like to read this poem twice, since there is so much great detail involved.

LOOKING AHEAD:

Either directly following Lesson 1 or at a convenient time prior to Lesson 2, use the “Exit Card” described below to assess students’ emerging understanding of concrete vs. abstract nouns. An exit card is a simple strategy whereby you can ‘keep track’ of students’ understanding throughout a unit of study, rather than making assumptions about what students have understood. Exit Card 1 will help you determine students’ readiness for a task in Lesson 2, and therefore help you determine which version of the task to assign to each student.

EXIT CARD 1:

Provide each student with a large index card or a sheet of paper.

Ask students to copy the word “CONCRETE” at the top of one side of the index card or sheet. Have students turn the card or sheet over, and copy the word “ABSTRACT” at the top of that side.

Now ask students to write AT LEAST TWO examples of nouns that fit the category on each side of the card or sheet.

You should allow only a few minutes for this task (the goal is to check understanding of the terms, not to see how many examples each student can generate).

In this case, use the information gathered from having student complete the exit card to sort students into 3 readiness groups, as follows:

GROUP A: Students were able to demonstrate their understanding of concrete and abstract nouns by writing down multiple accurate examples of each category, including those not provided as examples during the lesson.

GROUP B: Students correctly identified one or two examples from the class discussion, but could not identify their own examples and might have included a couple of non-examples.

GROUP C: Students had trouble completing the task. They asked for significant help from the teacher, did not know the definitions of each term, or perhaps did not remember the definition of a noun.

Note: Keep in mind that the three readiness groups are suggested or potential groups, but for a given class of students, not all might be applicable. For example, all of your students might fall into Groups B&C, or all might fall into Groups A&B, etc. In that case, in Lesson 2 you may not need to use all three versions of the task.

LESSON 2: CONCRETE vs. ABSTRACT

MATERIALS:

- Student workbooks
- Teacher’s copy of *Baby Tortoise* by D. H. Lawrence (this poem is also available on the website of the American Academy of Poets: www.poets.org)
- Copies of prompt sheets for Concrete vs. Abstract activity (3 versions are provided to cater for different readiness levels)
- Copies (for each student) of *The Red Wheelbarrow* by William Carlos Williams (if possible, also write out this very short poem on sentence strips and place in a pocket chart).
- Copies (for each student) of *The Red Wheelbarrow* Ideas Sheet

OBJECTIVES:



Students understand that poets use concrete language and sensory detail to communicate abstract ideas, emotions and truths.

Poetry helps readers see the extraordinary in the ordinary.

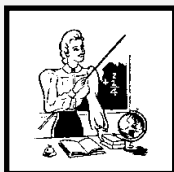
- Students build a sight word vocabulary
- Students identify and use various parts of speech (concrete and abstract nouns; adjectives)
- Students develop ideas for writing
- Students identify the author’s purpose in a simple text
- Students participate as knowledgeable, reflective, creative and critical members of a literary community

Important Vocabulary:

- Abstract and concrete nouns
- Adjectives
- Imagery

SEQUENCE:

Poetry for Appreciation...



Invite students to find a comfortable place for listening (this could be at their desks or lying or sitting on the carpet with their eyes closed). Remind students that one very important purpose of reading is for personal enjoyment. Their job during this time is to listen to and enjoy the way the poem sounds, and they might also listen for some of the imagery and details used by the poet.

Read *Baby Tortoise* by D. H. Lawrence aloud.

TEACHER NOTES:



Aren’t these poems too difficult for my students to understand?

The goal of ‘Poetry for Appreciation’ is simply to expose students to the sounds and rhythms of good

Afterwards, have students turn to the person next to them and share one image or phrase that stuck in their minds while listening to the poem. See if students can recall any of the specific words used in the poem.

As you finish reading the “poetry for appreciation” poem each day, you might invite a student to come forward and pin or tape a copy of the poem to a class poetry wall or board, so that students can see the collection building over time and also look at these more closely if they wish. Some students might have favorite poems of their own that they wish to bring in and add to the poetry wall.

poetry, which many students might not have encountered before. The poems selected are deliberately above the comprehension and independent reading level of most elementary school students, to allow students to concentrate on how the poems sound rather than analyzing every aspect of their meanings, as they will do with other poems used in the lesson activities. The poems have also been carefully selected because they each contain a lot of sensory detail, and are therefore consistent with the imagist movement which forms the basis for the big ideas about poetry that are explored through this unit.

Parts of speech: Abstract and Concrete Nouns



In this independent activity, students will work with word lists appropriate to their readiness levels as they practice identifying the distinction between concrete and abstract nouns. Some of the nouns students work with during this activity will be incorporated into a subsequent poetry-writing activity.



1. Introducing the task: Ask students to think back to the previous day’s lesson. Remind them that they were introduced to some new vocabulary words and see if any students can recall the words (imagery, abstract, concrete). Write the terms on the board and redefine these with input from students. Remind students about how important the distinction between concrete and abstract language is to expert poets. Explain that for the next task, students will be working on different activities, but that they will all be working on recognizing the difference between concrete and abstract nouns to prepare them to write



Ideally, students will be working with some words that are familiar to them, and with vocabulary words they have been working with elsewhere and which you wish them to practice. For this reason, if you can adjust one or more of the word lists to include current vocabulary, or if you can alert students to current vocabulary words in the text of the poem used in the task, you are encouraged to do so.

some of their own poems later in the lesson.

2. Assigning the task: Students will be assigned one of three versions of the task, based on their readiness as assessed through Exit Card 1:

- Students in Group A will each be provided with an excerpt from Elizabeth Bishop’s poem *The Fish* that was read aloud in Lesson 1. Their job will be to find as many concrete nouns and as many abstract nouns as they can in the excerpt. They should mark each kind of noun to keep track (e.g. by using two different colored pencils to underline, by using colored highlighters, or through another effective system). Then, they should write 2 lists of the nouns they identified; one for each category of noun, in their own notebooks. Students will reflect on which type of noun was used most in the excerpt, and what that might tell us about the poet. If they come across any words they do not know, they should look up the definitions.
- Students in Group B will be provided with a set of vocabulary cards (made by cutting out the words in the attached list) and two blank columns, one headed “concrete” and one “abstract.” Students will sort the words from their list into the two columns. Then they will copy the lists into their own notebooks. If they come across any words they do not know, they should look up the definitions.
- Students in Group C will be given a set of vocabulary cards and a list similar to the one provided to Group B. In this case though, each column includes a definition and several examples to help students sort their words. Again, students will copy the lists into their own notebooks and look up the definitions of any unfamiliar words.

As students finish, they can compare notes with a peer who has also completed the same task. At the end of the lesson, collect students’ notebooks so that you can address any ongoing misunderstandings before the next lesson.



The Red Wheelbarrow

Gather students together somewhere where they can all see the pocket chart.

Before showing and reading to students *The Red Wheelbarrow* by William Carlos Williams, take a quick poll (by show of hands), asking: (1) “Does a poem have to rhyme?” and (2) “Could a poem be only one sentence long?” Inform students that the poem you are going to share is a quite famous poem written in 1923 by a well-known poet from New York. Invite students to close their eyes and try to create a picture in their minds of the scene the poem describes.

Read *The Red Wheelbarrow* aloud:

so much depends
upon

a red wheel
barrow

glazed with rain
water

beside the white
chickens





Give students a chance to share their initial impressions of the poem. Use the following questions to guide a discussion about the poem:

- Did you form a clear, vivid picture in your mind as you listened to the poem? (Some students might like to describe in more detail what they visualized)
- How did the poet help his readers create a clear, vivid picture?
- What questions are you left with after hearing this poem? (E.g. *Why* does so much depend...? *Why* did he choose something so ordinary and specific to write about?)
- What do you notice about the punctuation in this poem? *Why* do you think the poet arranged the words in this way?



Link to Big Ideas

There are different accounts of how and why Williams wrote ‘The Red Wheelbarrow.’ It has been commonly reported that the poet, who was a physician, saw the wheel barrow scene when he looked out the window of a hospital room, in which he was sitting by the bedside of a seriously ill child who he was treating. The intense emotion of the moment made the specific details of the scene extraordinarily vivid. One interpretation is that “so much depends” on the specifics of time, place, and people, because that is what matters to us as we experience life. It is not “loss” as a general, abstract category that we experience, but the loss of an intensely personal nature. In considering the imagism movement that Williams belonged to, this poem is also interpreted as highlighting what is important in poetry – not the general, abstract sentiments of the Romantic and Victorian poets, but the vivid imagery of actual experience, conveyed by clear, specific language as in this deliberately spare text. Williams uses language

<p>(You might rearrange the words in the pocket chart or write them out on the board so that they form a conventional sentence and ask students to reflect on which they like better. In this poem, the <i>structure</i> helps to create a sense of suspense, or a feeling that the poet is walking you through the scene).</p> <p>Now offer some background information about the poem to students. You might talk about where Williams was (supposedly) when he saw the red wheelbarrow in the poem. Explain to students that Williams was a master of detail, and that some people interpret his poem to mean that so much depends on <i>specific details</i> (or the concrete rather than the abstract), both in poetry and in life. At important moments in our lives, it is the specific details that we remember (exactly who was there, where did it take place, what did you see, hear, smell, feel, taste). In poetry, it is the specific details, like concrete nouns and adjectives that describe them, that helps the reader connect to the imagery of the poem.</p> <p>Now examine the poem again with students and ask them to identify the concrete nouns (wheel barrow, water, chickens). How many abstract nouns are in the poem? (None). Ask students if they can identify what kind of word comes right before each concrete noun (adjective). You might need to remind students that an adjective is a part of speech that describes a noun.</p>	<p><i>in a way that makes the ordinary seem extraordinary to the reader. In this way, helping students connect with, question, and analyze this short poem can help them engage with some of the big ideas of this unit.</i></p>
<p style="text-align: center;">Concrete Poem Starters</p> <div style="display: flex; flex-direction: column;"> <div style="display: flex; align-items: flex-start; margin-bottom: 10px;">  <div style="flex-grow: 1;"> <p>During this final activity, students will work in small groups of about 2-3, and will use the Red Wheelbarrow prompt sheets to generate ideas for poems they will work on in a subsequent lesson modeled on Williams’ poem.</p> </div> </div> <div style="display: flex; align-items: flex-start;">  <div style="flex-grow: 1;"> <p>To use the sheet, students should <i>first</i> select a concrete noun from the list they generated in the earlier independent work task, and write that in the <i>second</i> box, which is labeled ‘concrete noun.’ As a group, they should then decide on an interesting adjective that could be used to describe that noun, and write that in the first box, which is labeled ‘adjective.’ Groups can generate two poem starters per prompt sheet, and can generate as many good</p> </div> </div> </div>	<p><i>To group students for this activity, it will probably be most productive to have students work with others who completed the same version of the earlier concrete vs. abstract task. Students who completed the same task will have a common list of nouns to choose from.</i></p>

ideas as they can during the time allotted.	
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The Red Wheelbarrow

By William Carlos Williams

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barrow

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water

beside the white
chickens

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