

# learning focus:

- ✓ classify triangles, quadrilaterals, polygons in graphic organizers
- ✓ solve problems related to perimeter and area
- ✓ calculate conversions within the metric and customary measurement system

# GEOMETRY AND MEASUREMENT UNIT

**5<sup>th</sup>**  
GRADE

12 DAY CCSS-ALIGNED UNIT

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A MANEUVERING THE MIDDLE® RESOURCE

# GEOMETRY AND MEASUREMENT



a 12 day CCSS-aligned unit

CCSS: 5.G.3, 5.G.4, 5.MD.1, 5.NBT.7, 5.NF.4A

ready-to-go, scaffolded  
student materials

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## student friendly + real-world application

**UNDERSTANDING GRAPHIC ORGANIZERS**  
STUDENT HANDOUT

Name \_\_\_\_\_  
Date \_\_\_\_\_ Pd \_\_\_\_\_

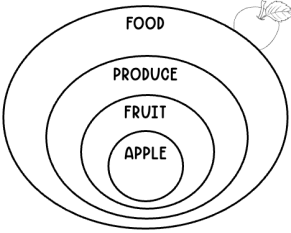
Graphic organizers can be used to classify items into groups based on characteristics of the items. Using the graphic organizer below, place the items in the category you think it best belongs.

A. GALA APPLE      D. CHIPS  
B. CARROT          E. ENVY APPLE  
C. BLUEBERRIES    F. COOKIES

• Are all apples a fruit? Explain how the graphic organizer supports your thinking.

• Are all food items a fruit? Explain how the graphic organizer supports your thinking.

• If an item is placed in the "apple" category, what other categories can you assume it belongs to?



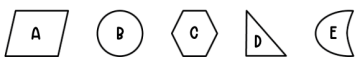
The categories in this graphic organizer represent a \_\_\_\_\_. A category inside a set is a \_\_\_\_\_. A subset has all the characteristics of the set, as we can see all apples are considered a fruit.

Graphic organizers can be useful to classify geometric figures. Different figures have characteristics called \_\_\_\_\_. The box below describes the properties of a \_\_\_\_\_.

**POLYGON**

- A \_\_\_\_\_ two-dimensional figure with \_\_\_\_\_ sides.
- Polygons are named by their number of \_\_\_\_\_.
- Ex: 3-sided figure: \_\_\_\_\_ 4-sided figure: \_\_\_\_\_

1. Use the properties of a polygon to place the letter of each shape in the appropriate category on the graphic organizer. Then answer questions a and b.



a. Reese knows that all two-dimensional figures are flat shapes. Will all polygons be flat shapes? Explain your thinking.

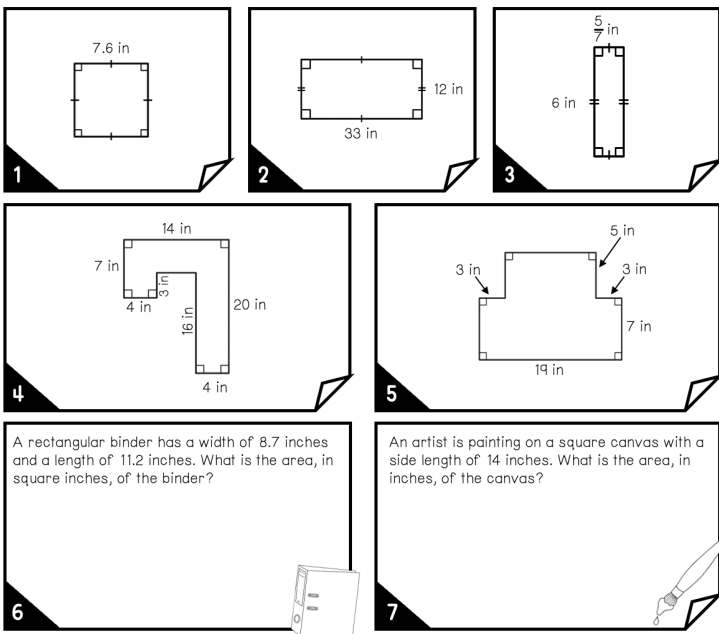
b. Use the graphic organizer to complete the sentence below:  
All \_\_\_\_\_ are \_\_\_\_\_ but not all \_\_\_\_\_ are \_\_\_\_\_.

scaffolded concepts

**AREA OF POLYGONS**  
INDEPENDENT PRACTICE

Name \_\_\_\_\_  
Date \_\_\_\_\_ Pd \_\_\_\_\_

Find the area of each figure below. Match your answers in the table to solve the riddle.



|                        |                                     |                          |                        |                                    |                         |
|------------------------|-------------------------------------|--------------------------|------------------------|------------------------------------|-------------------------|
| L: 396 in <sup>2</sup> | M: 13 $\frac{3}{7}$ in <sup>2</sup> | T: 30.4 in <sup>2</sup>  | N: 196 in <sup>2</sup> | E: 4 $\frac{2}{7}$ in <sup>2</sup> | P: 198 in <sup>2</sup>  |
| A: 90 in <sup>2</sup>  | W: 56 in <sup>2</sup>               | O: 56.76 in <sup>2</sup> | G: 132 in <sup>2</sup> | Y: 97.44 in <sup>2</sup>           | C: 39.8 in <sup>2</sup> |

**WHAT DO YOU CALL AN EMPTY PARROT CAGE?**

A \_\_\_\_\_

5 1 2 2 6 4 1 7 3

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self-checking practice

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## unit study guide + assessments

✓ quizzes

✓ editable unit test

**GEOMETRY QUIZ**

Name \_\_\_\_\_  
Date \_\_\_\_\_ Pd \_\_\_\_\_

Answers

1. Mr. Reed wrote the following statements on the board.

I. A quadrilateral is a polygon with 4 sides and 4 angles.  
II. Rectangles, squares, and triangles are all examples of quadrilaterals.  
III. All parallelograms are rectangles.

Which of the statements are true?  
a. I only      b. II only      c. I and II

2. Mrs. Johnson asked her students to list ways the triangle shown can be classified. The student correctly completed the task?

ETHAN      DELANEY  
SCALENE, OBTUSE      SCALENE, ACUTE

Answer the questions below. Be sure to show your work.

3. A small rectangular dog crate pillow has a length of 22.3 inches and width of 14 inches. What is the area, in square inches, of the crate pillow?

a. 36.3 in<sup>2</sup>  
b. 312.2 in<sup>2</sup>  
c. 72.6 in<sup>2</sup>  
d. 145.2 in<sup>2</sup>

5. Which student(s) drew a graphic organizer that correctly classifies triangles?

SHAY

TRIANGLES  
ISOSCELES TRIANGLES  
EQUILATERAL TRIANGLES

**GEOMETRY AND MEASUREMENT UNIT REVIEW**

Name \_\_\_\_\_  
Date \_\_\_\_\_ Pd \_\_\_\_\_

Solve each of the problems below. Be sure to ask questions if you need more help with a topic.

**I CAN CLASSIFY TRIANGLES.**

1. Create a graphic organizer that could be used to demonstrate ways that triangles can be classified according to their sides. The graphic organizer should be 1-2 sentences summarizing what the demonstrator demonstrates.

2. Sketch a triangle that meets the given criteria:

3. Circle the name of the student(s) who correctly completed the missing category in the graphic organizer. Justify your answer.

RICARDO      COLE      MIA  
OBTUSE TRIANGLES      ACUTE TRIANGLES      ISOSCELES TRIANGLES

**I CAN CLASSIFY QUADRILATERALS.**

4. Three students drew a figure on the grid above the figure they drew.

Savannah drew a quadrilateral with two sets of parallel sides.  
Daphne drew a quadrilateral with two sets of parallel sides and four right angles.  
Gina drew a quadrilateral with one set of parallel sides.

**CLASSIFYING QUADRILATERALS STUDENT HANDOUT**

Name **Answer Key** \_\_\_\_\_  
Date \_\_\_\_\_ Pd \_\_\_\_\_

A quadrilateral is a polygon with four sides and four angles. To classify quadrilaterals, ask the following questions about the sides and angles. Below each question, sketch an example of a quadrilateral with the given properties.

**How many sets of parallel sides does it have?**  
Ex: 2 sets of parallel sides

**How many congruent sides does it have?**  
Ex: 4 congruent sides

**How many right angles does it have?**  
Ex: 4 right angles

In 1-3, highlight the sets of parallel sides. Then list the number of congruent sides and right angles.

1. Congruent sides: 2 sets  
Right angles: 4

2. Congruent sides: 0  
Right angles: 2

3. Congruent sides: 4  
Right angles: 0

Use the table to define and sketch an example of each type of quadrilateral.

| PARALLELOGRAM   | RECTANGLE  | RHOMBUS  | SQUARE  | TRAPEZOID   |
|---|--|--|---|---|
| A quadrilateral with <u>two</u> sets of <u>parallel</u> and <u>congruent</u> sides. | A parallelogram with <u>two</u> sets of <u>parallel</u> and <u>congruent</u> sides and <u>four</u> right angles. | A parallelogram with <u>all four</u> sides equal length. | A parallelogram with <u>all four</u> sides equal length and <u>four</u> right angles. | A quadrilateral with <u>one</u> set of <u>parallel</u> sides. |
|   |  |  |   |   |

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answer keys included