



Grade 3 Unit 5 Geometry

Volume 5 Issue 1

References

Helpful Links:

<http://www.mathcats.com/explore/polygons.html> - exploring polygons

<http://www.math-play.com/Polygon-Game.html> - name the Shape

http://nlvm.usu.edu/en/nav/frames_asid_170_g_2_t_3.html?open=activities&from=category_g_2_t_3.html - compose Shapes

http://www.learner.org/courses/learningmath/video/geometry/wmp/geo_10_k5_ch1.html - video of teacher using Venn Diagram to sort polygons with whole class

Dear Parents

Welcome to the new school year! We are eager to work with you and your students as we learn new mathematical concepts. Your student's math class is calling for students to be actively engaged in doing math in order to learn math. In the classroom, students will frequently work on tasks and activities to discover and apply mathematical thinking. Students will be expected to explain or justify their answers and to write clearly and properly. Your students will receive a consumable textbook and online access from their teacher.

Concepts Students Will Use and Understand

- Further develop understandings of geometric figures by focusing on identification and descriptions of plane figures based on geometric properties.
- Identifies examples and non-examples of plane figures based on geometric properties.
- Identify differences among quadrilaterals.
- Understand that shapes in different categories may share attributes and those attributes can define a larger category (example: rhombuses, rectangles, and others have four sides and are all called quadrilaterals).
- Can draw plane figure shapes based on attributes.
- Develop an understanding of fractions, beginning with unit fractions, by partitioning shapes into equal parts and area.

Vocabulary

Parallelogram: A quadrilateral with opposite sides that are parallel and of equal length and with opposite angles that are of equal measure.

Plane figure: A two-dimensional shape such as a rectangle or a square.

Polygon: A closed plane figure made with three or more sides and angles.

Quadrilateral: A four sided polygon.

Rectangle: A quadrilateral with four right angles and two pairs of opposite, equal parallel sides.

Rhombus: A parallelogram with four equal sides and equal opposite angles.

Square: A quadrilateral with four equal sides, four right angles, and opposite sides parallel.

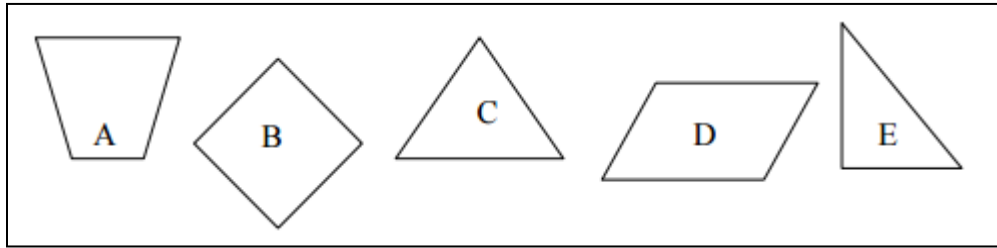
Triangle: A polygon with three sides.

Trapezoid: A quadrilateral with one pair of parallel sides.

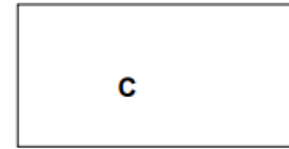
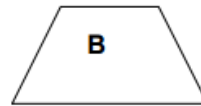
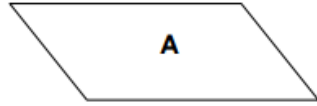
Try <http://intermath.coe.uga.edu/dictionary/homepg.asp> or <http://www.amathsdictionaryforkids.com/> for further examples.

Examples: Geometry

Sort shapes into groups by attributes. Identify the shape and describe it.



Use these shapes to answer the questions.



1. I have 4 sides. My opposite sides are equal. I have 4 right angles. Which shape am I? Why?
2. I have 4 sides. I have only 1 pair of parallel sides. Which shape am I? Why?



What do these shapes have in common?



Name the shape, describe the attributes of each.

Activities at Home

- Use grid paper to create congruent shapes.
- Identify, describe, and classify different household objects as solid figures.
- Use tangrams to make plane figures.
- Cut pieces of yarn to make line segments. Measure each segment in inches (to the nearest quarter inch) and centimeters.
- Go stargazing and make imaginary line segments by connecting the stars (points). Create geometric shapes.
- Go on a shape hunt! Look for geometric shapes in your home and community. Create a chart to show your findings.