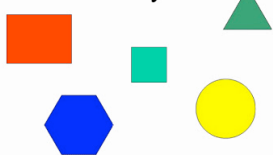


2D shapes



Grade 5 Unit 5

2D Figures

Volume 1 Issue 5

References

Helpful Links:

<https://smart.wikispaces.hcpss.org/Grade+5+Geometry>

<http://www.math-play.com/shapes-game.html>
<http://www.counton.org/games/map-fractions/falling/>

<http://illuminations.nctm.org/Activity.aspx?id=3521>

Math Grade 5 Textbook Connection:

Ch. 12, Lessons 1 - 7

Textbook Online:

<http://connected.mcgraw-hill.com/connected/login.do>

Ask your teacher for the online passcode.

Dear Parents,

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

- Identify similarities and differences among two-dimensional figures.
- Reason about attributes (properties) of two-dimensional figures.
- Have experiences discussing the property of two-dimensional figures.
- Build upon their fourth grade knowledge and create a hierarchy diagram
- Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category

Vocabulary

Two Dimensional: A measure in two directions, such as length and width.

Angles: The figure formed when two rays or line segments share the same endpoint.

Point: An exact position or location.

Line Segment: A part of a line that includes two points, called endpoints, and all the points between them.

Perpendicular Lines: Lines that intersect to form right angles.

Parallel Lines: Lines in a plane that never intersect.

Base: A polygon's side or a face of a solid figure by which the figure is measured or named.

Quadrilateral: A polygon with four sides.

Parallelogram: A quadrilateral (4-sided figure) that has both pairs of opposite sides equal and parallel. Example: all rhombi (plural for rhombus). Squares and rectangles are parallelograms.

Irregular Polygon: A polygon that doesn't have all equal sides or all equal angles.

Try <http://intermath.coe.uga.edu/dictionary/homepg.asp> or

<http://www.amathsdictionaryforkids.com/> for further examples.

Symbols

△ triangle

|| parallel lines

Grade 5 Unit 5

Example 1

Examine whether all quadrilaterals have right angles. Justify your answer by giving examples and non-examples.

↔ line

⊥ perpendicular

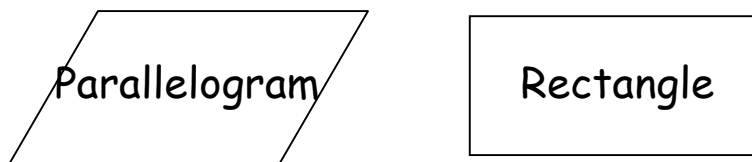
X intersecting

Example 2

Explain, how a right triangle can be both scalene and isosceles, but not equilateral.

Example 3

Compare and contrast rectangles and parallelograms.



Example 4

Core Lesson

Quadrilaterals with 2 sets of parallel sides:

The infographic consists of four colored boxes with text and diagrams. The first box (orange) is labeled "parallelogram" and lists "2 sets of parallel sides" and "2 pairs of congruent sides". The second box (green) is labeled "rectangle" and lists "2 sets of parallel sides", "2 pairs of congruent sides", and "4 right angles". The third box (blue) is labeled "square" and lists "2 sets of parallel sides", "4 congruent sides", and "4 right angles". The fourth box (orange) is labeled "rhombus" and lists "2 sets of parallel sides". Each box contains a small diagram of the respective shape with tick marks indicating congruence or parallelism.

- 2 sets of parallel sides
- 2 pairs of congruent sides

- 2 sets of parallel sides
- 2 pairs of congruent sides
- 4 right angles

- 2 sets of parallel sides
- 4 congruent sides
- 4 right angles

- 2 sets of parallel sides

LEARN ZILLION

Activities at Home:

- Name two-dimensional figures and find examples at home.
- Draw different polygons within a piece of triangle grid paper, or use combinations of triangles to create other polygons.
- Make flash cards of different geometric figures and their properties.
- Identify, describe, and different household objects as two-dimensional figures.
- Use a compass or a computer to draw geometric figures