Grade 2

Unit 2: 2-D and 3-D Geometry

TEAMBCPS
Office of Mathematics PreK-12

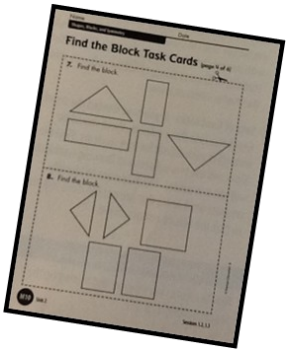
The PreK-12 Mathematics curriculum focuses on problem solving, communication, and critical thinking in order to provide a foundation where every student reaches their potential to become a globally competitive, mathematically literate citizen.

About this Unit

Students identify two-dimensional (2-D) and three-dimensional shapes (3-D) by focusing on the properties of rectangles and rectangular prisms.
Shapes software is introduced as a tool for extending and deepening understanding. This tool is designed for K–2 students to explore how different shapes go together, experiment with different geometric transformations (rotations, translations, reflections), and explore patterns. Students will continue to develop fluency with the doubles strategies for addition combinations. (1+1, 2+2, 3+ 3, etc.)

All About Shapes

Shapes can be combined (composed) or taken apart (decomposed) to make other shapes (e.g., two squares can be combined to form a rectangle, a square can be cut diagonally to make two triangles).



Two-dimensional shapes make up the faces of three-dimensional shapes.

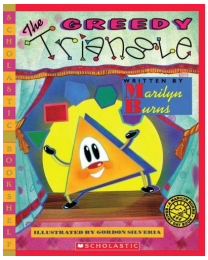
In this unit students use pattern blocks and Geoblocks to explore these relationships. They look for ways that shapes are related.

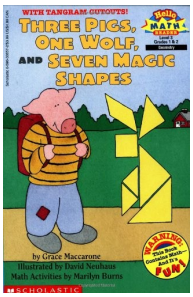
Geoblocks

Pattern Blocks

Helping Your Child at Home

- Look for 2-D and 3-D shapes around your house and neighborhood.
- Compare 2-D and 3-D shapes. What 2-D shapes make up the 3-D shapes?
- Talk about the 3-D shapes of foods. For example, oranges are spheres and cans of soda are cylinders.
- Talk about the 3-D shapes of containers in stores. For example, boxes are rectangular prisms or cubes.
- Read books about geometry.





Visit these Web sites for math activities.

- Shape Construction (http://www.abcya.com/shapes_geometry_game.htm

Students solve puzzles by using what they know about shapes.

- Investigations (http://investigations.terc.edu/library/Games_23.cfm)

Students can explore a variety of games leveled for 2-3 students focusing on numbers, addition and subtraction, place value, money, and other mathematical topics.

- Building Blocks (http://www.primarygames.com/math/buildingblocks/)

Students figure out how to construct designs using various shapes.

- Cyberchase (http://pbskids.org/cyberchase/find-it/geometry/games/)

Students can explore a variety of games that focus on geometric skills and concepts.

- National Library of Virtual Manipulatives (http://nlvm.usu.edu/en/nav/frames_asid_171_g_3_t_2.html)

Students can create designs using virtual pattern blocks.