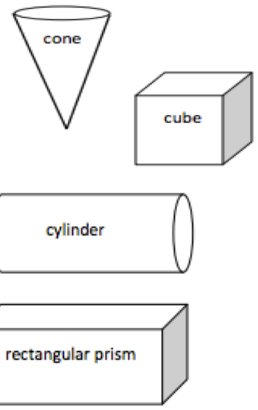
Eureka Math Tips for Parents

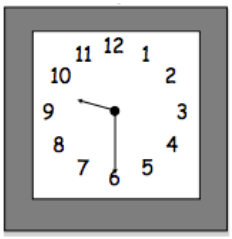
Grade 1
Module 5

Identifying, Composing, and Partitioning Shapes

In this module, students will revisit their kindergarten work with geometric shapes. They will sort, analyze, compare, and create two- and three-dimensional shapes, and put them together to create new shapes. They will also, as in their work with number bonds and addition and subtraction, examine the part-whole relationship through this new geometric lens.



Some three-dimensional shapes



Students will also use the idea of a half-circle to tell time to the ½ hour in this module.

What Came Before this Module:

In Module 4, students studied, organized, and added and subtracted numbers within 40. We used the symbols >, <, and = to compare numbers.

What Comes After this Module:

All of our first-grade learning comes together in this unit in which we will work with place value, addition, and subtraction within 100, as well as continue our work with money and coins.

New Terms and Strategies in this Module:

Attributes - characteristics of an object such as color or number of sides

Fourth - 1 out of 4 equal parts

Half - 1 out of 2 equal parts

Time Terms:
Half hour
Hour
Minute
O'clock

Three-Dimensional Shapes:
Cone
Cube
Cylinder
Sphere
Rectangular prism

Two-Dimensional Shapes:
Circle
Half-circle
Square
Quarter-circle
Rectangle
Triangle

Hexagon - flat figure enclosed by six straight sides

Rhombus - flat figure enclosed by four straight sides of the same length where two pairs of opposite sides are parallel

+ How you can help at home:

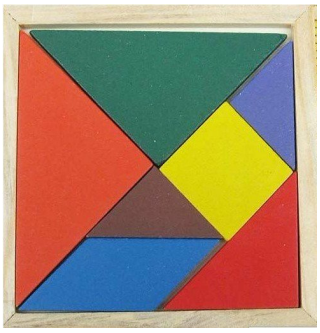
- If you have Pattern Blocks or Tangram pieces at home, use them to practice the skills your student will be working on in this module. If you need blocks, ask your child's teacher for a blank copy of the ones being used in this module, or make your own out of paper from a model. (Please see the reverse side of this sheet for a helpful model of all the blocks).

Key Common Core Standards:

- *Reason with shapes and their attributes*
  - Distinguish between defining attributes (e.g. triangles are closed and three-sided) versus non-defining attributes (e.g. color, relative size, orientation)
  - Compose two-dimensional or three-dimensional shapes to create a composite shape
  - Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters
- *Tell and write time*
  - Tell and write time in hours and half-hours using analog and digital clocks

Prepared by Erin Schweng, Math Coach

Some basic pattern blocks are shown below. In this module, students will use them as shown to make composite shapes from other shapes, as with the 2 triangles and 2 rhombuses combined to make a hexagon.



Tangrams, above, are a puzzle game similar to pattern blocks.

Spotlight on Math Strategies:

Pattern Blocks

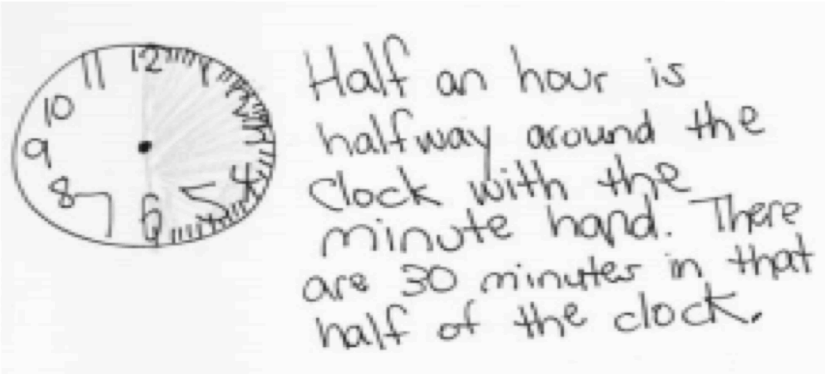
Students will use these blocks to compose shapes in this module of *A Story of Units*.

A Story of Units has several key mathematical strategies that will be used throughout a student's elementary years.

This module takes the basic understanding students have about shapes from Kindergarten and stretches their skills to see how to combine and create the shapes they know into new, composite shapes. Pattern blocks are not exclusive to *A Story of Units*. They are tools that have been used to support math learning for many generations of students.

In this module, students will learn the proper names of all the pattern block shapes: triangle, square, rhombus, hexagon, and trapezoid, (though some pattern block sets do not include trapezoids). We will also use the blocks to discuss equal parts, for example students can compose a hexagon out of several different pattern blocks, as above.

Sample Problem from Module 5:
(Example taken from Lesson 12)

Shade the clock from the start of a new hour through half an hour.

Explain why that is the same as 30 minutes.