

Mathematical Background

Here is an overview of the content your students will learn in this unit.

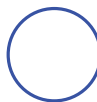
Geometry and Time

Understand attributes of flat and solid shapes.

TEKS 1.6.A, 1.6.B, 1.6.C, 1.6.D, 1.6.E, 1.6.F

- Two- and three-dimensional shapes have defining **attributes** that help identify the shape.
 - » Attributes for two-dimensional shapes include *sides* and *vertices*.
 - » Attributes for three-dimensional shapes include *edges*, *faces* and *vertices*.
- Shapes can be composed from smaller shapes.
 - » Two triangles put together can make a square.
 - » Four triangles put together can make a rectangle.

Two-dimensional shape



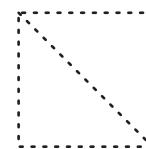
A circle has a curved side and no vertices.

Three-dimensional shape

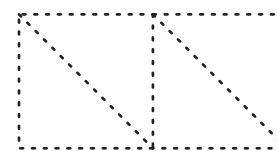


A rectangular prism has edges, square vertices, and rectangular faces.

Composing into a larger shape



A square made from 2 triangles.



A rectangle made from 4 triangles.

Partition shapes into halves and fourths.

TEKS 1.6.G, 1.6.H

- Two-dimensional shapes can be partitioned into 2 or 4 equal parts.
 - » A shape partitioned into 2 equal parts has **halves**.
 - » A shape partitioned into 4 equal parts has **fourths**.



Each shape is split into **halves**.

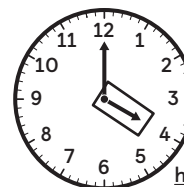


Each shape is split into **fourths**.

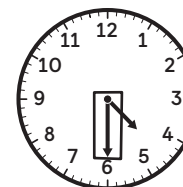
Recognize and tell time in hours and half hours.

TEKS 1.7.E

- An analog clock has an hour hand and a minute hand that move in relation to each other depending on the time.
 - » The **hour hand** is shorter than the minute hand and will be pointing at a number on the hour and directly between two numbers **half past** the hour.
 - » The **minute hand** is longer than the hour hand and will point at 12 on the hour and 6 **half past** the hour.



4 o'clock



half past 4

Unit Investigation

Lesson 1 is the Unit Investigation. Students search for and describe three-dimensional shapes, or solid shapes, in their school environment to build curiosity and apply their own knowledge in a variety of ways. Use the **Caregiver Connection** to help students continue to explore the math they will see in the unit.

Caregiver Connection

Students may enjoy going on a shape hunt at home or in their community. Have students look out for solid shapes, such as cones, cubes, cylinders, and spheres.

You can ask:

- “How could you describe this shape?”
- “How are they the same? How are they different?”
- “What other objects have this same shape?”