

## Lesson: Two and Three Dimensional Figures

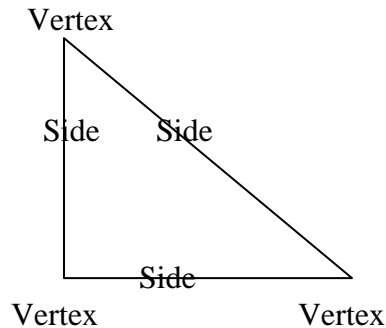
**Third Grade Objective 3.01:** Use appropriate vocabulary to compare, describe and classify two and three dimensional figures.

### Lesson

Two dimensional figures are plane figures made up of sides.

Important two dimensional vocabulary:

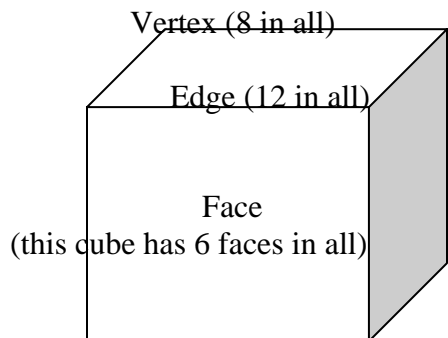
- **Sides** are the edges of a figure.
- The endpoints of the sides are called **vertices** (which are the corners).
- If the figure is closed on all sides and has three or more straight sides it is a **polygon**.
- Polygons include triangle (3 sides), quadrilaterals (4 sides – square, rectangle, rhombus, parallelogram, trapezoid), pentagon (5 sides), hexagon (6 sides), octagon (8 sides).



Three dimensional figures have a length, height and a width. **Polyhedra** are three dimensional figures made up of polygons.

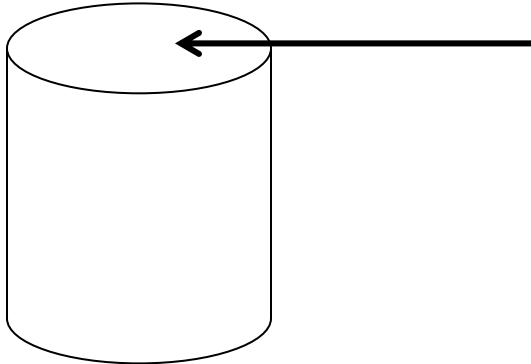
Important three dimensional vocabulary:

- Flat surfaces are called **faces**.
- The faces meet at an **edge**.
- The edges meet at a corner called a **vertex**.
- Some examples include sphere, prism, pyramid, cone, cylinder, cube.



**Try these on your own!**

1. Label the parts of this three dimensional figure



2. Which three dimensional figures can roll?
3. How are a square, a triangle and a hexagon alike? How are they different?

Check out this website for lots more practice with three dimensional figures:

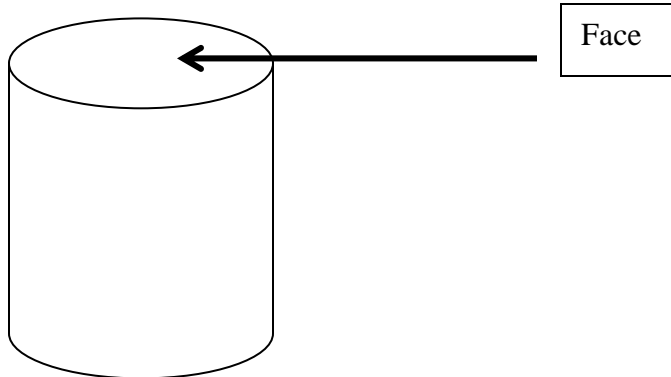
<http://illuminations.nctm.org/LessonDetail.aspx?ID=L406>

Here you can use an online geoboard to create different three dimensional figures:

[http://nlvm.usu.edu/en/nav/frames\\_asid\\_129\\_g\\_2\\_t\\_3.html?open=activities&from=to  
pic\\_t\\_3.html](http://nlvm.usu.edu/en/nav/frames_asid_129_g_2_t_3.html?open=activities&from=to_pic_t_3.html)

### Check Your Answers

1. Label the parts of this three dimensional figure



2. Which three dimensional figures can roll? Cylinder, sphere
3. How are a square, a triangle and a hexagon alike? How are they different? They are alike because they are all polygons, they all have at least one side, angle, and vertex and they are all two-dimensional. A square has four sides, a triangle has three sides and a hexagon has six sides.