

## Unit 1; Naming and Constructing Geometric Figures Study Guide

Below are the concepts and the vocabulary found in Unit 1. As you can see, this vocabulary list is extensive. However, many of these words have been used in *Everyday Mathematics* prior to fourth grade and should be familiar. Please pay close attention in class, complete your assignments and all corrections in a timely fashion, and ask questions when you don't understand. Every time I refer to this study guide, make sure it is in front of you. Take good notes and/or illustrate the concepts. If you have a lot of corrections or if you are having trouble working independently, I will ask you to stay for tutorials. You may also tell me about what you don't understand and ask to stay for tutorials too.

There will be reviews before all assessments, but you need to assume more responsibility. For example, identifying polygons by names and knowing how to draw and represent a line segment correctly may require you to reinforce your understandings by studying the information in your *Student Reference Book* and your Math Journal. Not all of the concepts or skills on the study guide will be on the unit assessment. Some are building blocks for future units of study. It's time to "make good choices" about your study habits and goals for learning.

**Geometric Figures & Symbols** - Be able to identify, draw, describe, & use symbols for:  
lines  
rays  
line segments  
angles

### **Names or Characteristics of Geometric Figures**

endpoint  
vertex (vertices)  
point  
rotation arc  
collinear points  
right angle

### **Language Used to Describe Lines, Line Segments, & Rays**

parallel  
perpendicular  
intersect  
skew lines  
congruent

## **Polygons (2D figures)**

**Parts:** angle, side, vertex (The interior of a polygon is **not** part of the polygon.)

**Types** (Be able to name, identify the characteristics, and construct all of them.)

triangle	hexagon
quadrangle	pentagon
quadrilateral	rectangle
square	trapezoid
rhombus (rhombi or rhombuses)	parallelogram
octagon	kite
nonagon	decagon

**Special Types:** concave or nonconvex, convex, regular, equilateral, n-gon

**Circles** (Be able to identify, name, & construct designated circles.)

**Parts:** radius ((radii), diameter, circumference, center point, chord

**Types:** concentric  
intersecting  
tangent

**\*Inscribed** - a polygon constructed within a circle

## **Tools for Constructing Geometric Figures**

straightedge  
geometry template  
compass

### **Secure Goals:**

1. Draw quadrangles.
2. Draw parallel and intersecting lines and line segments.
3. Name lines and rays.
4. Name polygons.
5. Identify properties of polygons.
6. Solve addition and subtraction facts.

### **Developing Goals:**

1. Draw perpendicular line segments, a concave polygon, concentric circles, and a polygon congruent to a given polygon.
2. Identify polygons.