

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.