**Geometry – Unit 1 Plan**

**Shapes and Transformations**

**Big Ideas**

This unit begins by introducing you to some of the big ideas of the course. You will apply your knowledge from previous math courses to solve new problems. Later in the course, you will learn new ways to solve these problems.

Then you will start to familiarize yourself with the basic geometric shapes. You will investigate what happens when you transform them, that is when you flip, turn, and slide them. You will also study their attributes, such as parallel sides and right angles.

As you are completing the activities in this unit, remember to ask mathematical questions so that you can make sense of the problem and persevere in solving the problem and also to construct a convincing argument once you have come up with a solution to a problem.

**Assessments**

Classwork

Homework

Miniquizzes

Team Test

Unit Test

**DAY 1: 9/4 & 9/5**

Objectives

* Investigate, make predictions, and test predictions

Agenda

1. Expectations

2. Review Team Roles

3. Section 1.1.2, Problems 1-9 to 1-12

Homework

1-3, 1-4, 1-5, 1-6, 1-7

**DAY 2: 9/6 & 9/7**

Objectives

* Investigate how the perimeter and area of a shape change as the shape in enlarged proportionally
* Develop a convincing argument

Agenda

1. Review Homework

2. Section 1.1.3, Problems 1-19 to 1-23

3. Section 1.1.4, Problems 1-30 to 1-31

Homework

1-15, 1-16, 1-17, 1-26, 1-27, 1-29

**DAY 3: 9/10 & 9/11**

Objectives

* Use visualization to investigate reflection
* Introduction to the three transformations (reflections, translations, and rotations)

Agenda

1. Review Homework

2. Miniquiz 1.1

3. Section 1.2.1, Problems 1-50 to 1-51

4. Section 1.2.2, Problems 1-59 to 1-61

Homework

1-32, 1-34, 1-35, 1-36, 1-42, 1-44

**DAY 4: 9/12 & 9/13**

Objectives

* Understand and use the three transformations (reflections, translations, and rotations) to create shapes

Agenda

1. Review Homework

2. Section 1.2.3, Problems 1-69 to 1-72

3. Section 1.2.4, Problems 1-78, 1-79, 1-81

Homework

1-64, 1-65, 1-67, 1-74, 1-75, 1-76

**DAY 5: 9/14 & 9/17**

Objectives

* Learn about reflection, translation and rotation symmetry
* Identify which common shapes have reflection, translation and rotation symmetry

Agenda

1. Review Homework

2. Miniquiz 1.2

3. Review transformations (Sections 1.2.1 to 1.2.4)

4. Section 1.2.5, Problems 1-87 to 1-89

Homework

1-83 a,b, 1-84 a,b, 1-85, 1-86

**DAY 6: 9/18 & 9/19**

Objectives

* Successful Assessment

Agenda

1. Review Homework

2. Team Test

3. Supplemental Worksheet

Homework

1-92 thru 1-96

**DAY 7: 9/20 & 9/21**

Objectives

* Classify and mark shapes by their attributes (number of sides, number of angles, sides of same length, right angles, parallel sides)
* Use Venn Diagrams

Agenda

1. Section 1.3.1, Problems 1-97, 1-98

2. Section 1.3.2, Problems 1-105, 1-107

Homework

1-100, 1-102, 1-110, 1-112, 1-114

**DAY 8: 9/24 & 9/25**

Objectives

* Unit 1 Closure

Classwork

1. Process Team Test

2.Unit 1 Closure

Homework

Finish Closure Problems

1-121, 1-124, 1-125

**DAY 9: 9/26 & 9/27**

Objectives

* Successful Assessment

Agenda

1. Ch 1 Test

2. Introduction to Unit 2: Angles and Measurement

Homework

No Homework