Unit 4c-Transformations and Similarity

Content Area: **Mathematics**
Course(s): **Math 7 Pre-Algebra Honors**
Time Period: **Marking Period 4**
Length: **WK 4-6 Go Math! Advanced 2 Module 18**
Status: **Published**

Essential Questions

- How do you describe the properties of dilations?
- How can you describe the effect of a dilation on coordinates using an algebraic representation?
- What is the connection between transformations and the orientation of similar figures?

Big Ideas

- Understand congruence and similarity using physical models, transparencies, or geometry software.

Diversity Integration

Objective: Students will be able to find how the flags of different countries are made up of similar or congruent shapes.

Description of Activity: Students will choose two or three flags from different countries and examine the shapes they are made of. They will use calculations to determine if the shapes are similar or congruent. They will then create a new flag by performing transformations on the shapes of an existing flag to design the new one.

CSDT Technology Connection

8.1.8.DA.1 Organize and transform data collected using computational tools to make it usable for a specific purpose.

Enduring Understandings

Expressions and Equations

8.G.A.3 Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.

8.G.A.4 Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them. spreading). Interpret scientific notation that has been generated by technology.

Mathematical Practices Focus

2. Reason abstractly and quantitatively. Lesson 18.1, 18.2, 18.3

3. Construct viable arguments and critique the reasoning of others. Lesson 18.1, 18.2, 18.3

4. Model with mathematics. Lesson 18.2, 18.3

5. Use appropriate tools strategically. Lesson 18.1, 18.2, 18.3

6. Attend to precision. Lesson 18.1, 18.3