

Title: Geometry – Monkeying Around with Similar and Congruent Figures

Brief Overview:

In this unit, students will investigate the properties of congruent and similar two– and three–dimensional figures. Students will apply their geometry and measurement skills through hands–on activities connected to area, perimeter, and volume.

Note: It is assumed that various concepts such as scale factor, proportions, and volume have been previously taught. It may be necessary to supplement/modify the lessons in order to meet the needs of students.

NCTM Content Standard/National Science Education Standard:

Geometry

- Analyze characteristics and properties of two– and three–dimensional geometric shapes and develop mathematical arguments about geometric relationships.

Measurement

- Apply appropriate techniques, tools, and formulas to determine measurements. Understand measurable attributes of objects and the units, systems, and processes of measurement.

Grade/Level:

Grade Seven, Geometry

Duration/Length:

Five 45 – 50 minute lessons

Student Outcomes:

Students will:

- Understand relationships among the angles, side lengths, and perimeters of similar objects.
- Understand relationships among the areas of similar objects.
- Understand relationships among the volumes of similar figures.
- Apply conceptual knowledge of area, perimeter, and volume of similar figures to real life situations.

Materials and Resources:

- Overhead Geoboard