

## Lesson 5: Investigating Nets and Polyhedra

### Lesson Topic

3-D shapes and their nets

### Grade

5

### Lesson Length

50 minutes

### NCTM Standards Addressed

- Make and test conjectures about geometric properties and relationships and develop logical arguments to justify conclusions
- Build and draw geometric objects
- Create and describe mental images of objects, patterns, and paths
- Identify and build a three-dimensional object from two-dimensional representations of that object
- Identify and draw a two-dimensional representation of a three-dimensional object

### PA Standards Addressed

- Describe in words how geometric shapes are constructed.
- Construct two- and three-dimensional shapes and figures using manipulatives, geoboards and computer software.

### Student Objectives

Students will:

- create a net for a given polyhedron;
- determine the corresponding polyhedron for a given net.

### Grouping for Instruction

- Whole class for launch and closure
- Small groups of 4 or 5 for the investigation

### Overview of Lesson

Students will investigate several polyhedra (cube, tetrahedron, and one of their choosing) and their corresponding nets. Given a polyhedron they must find at least one net. Given a net they must visualize the solid the net will produce.