

# Algebra/Geometry Institute Summer 2002



## Lesson Planning Guide

**Faculty Name:** Shirley Jenkins  
**School:** Hollandale School District  
**Grade Level:** 6th

### 1 Teaching objective(s)

Students will describe and explore the relationship between lines and angles by constructing/drawing and representing other geometric figures.

### 2 Instructional Activities

The problem of the day will be presented.

The students will look at visual one and review definitions for, figures of, symbols for, and how to read the geometric ideas of line, point, plane, line segment, ray, and angle.

Students will be asked to give examples of the figures in visual one.

The students will be asked to make a point on a piece of paper and use a straightedge and draw a line through it. The students will then draw another line through the point. They will be asked the following questions:

1. How many different lines could you draw through the point?
2. Are there any other straight lines that connect the points?

Students will be asked to explain their drawings and defend their answers.

Students will be asked to represent line segments on geoboards. They will explain their representations. The students will then make four arrowheads using scissors and construction paper. The students will use the arrowheads and rubber bands to represent lines, angles, rays and planes on geoboards. The teacher will ask the students to describe the difference between these representations and the line segments representation.

The students will discuss their representations and summarize on paper their thoughts about the lesson and how would they use what they learn to construct other geometric figures.

### 3 Materials and Resources

Geoboards

Scissors

Construction paper

Straightedge

Mathematics in Action, Macmillian/MacGraw-Hill Publishing Company, pages 326 –327

Rubber bands

### 4 Assessment

1. During the lesson, students will be observed as they participate in the activities.
2. The students will be provided a practice sheet to be completed in class and this will be graded.
3. The students will be provided a homework assignment.

### 5 Enrichment (Optional)

Include activities that engage learners in additional projects that are related to this lesson. Attached.