

# Algebra/Geometry Institute Summer 2003

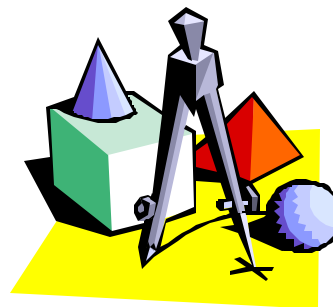
## Lesson Planning Guide

**Faculty Name:** Steven G. Hulette

**School:** Myrtle Hall III

**City:** Clarksdale, MS

**Grade Level:** 6th



### 1 Teaching objective(s)

The students will explore Institute Content Based on MS Framework III such as “Utilizing various geometric shapes to make patterns.”

The students will:

- A. Learn the basic geometric shapes and learn what shapes are formed when dividing, example a square becomes two triangles or two rectangles when divided in half.
- B. Create two nine patch squares. One will be used to be exchanged through the internet, and the other will be used to construct a hot pad that they can quilt and take home.
- C. Understand about the history of quilting, and have an appreciation for the artistry in quilts and the type of society that produced quilt.

### 2 Instructional Activities

- A. The teacher will start the lesson by reading, Polacco, Patricia. (1988). *The Keeping Quilt*, New York: Simon & Schuster.
- B. The teacher will introduce the students to the vocabulary:
  1. Quilt
  2. Geometric shapes, ect.
    - a. Circle
    - b. Square
    - c. Rectangle
    - d. Triangle
- C. Teacher will give the students their nine grid so they may start the nine patch assembly. On the back of the nine patch grid the students will accurately map their patch. Emphasize accurate measurement.

- D. The teacher will observe students as they practice on their paper quilts. The children will be asked to bring material from home that means something to them to include in their square.
- E. The teacher will observe the students closely and give help where needed. The children reinforce the material with fusible web that can be drawn upon. Students will be required to calculate the finish size of the block allowing  $\frac{1}{4}$  inch seams. The seam will also be drawn on the seam backing.
- F. The quilt will be displayed in the library and the librarian will have several books available on quilts.

### 3 Materials and Resources

The teacher will provide each child with:

- A. Pre-drawn nine patch grids
- B. Ruler, construction paper, cloth, fusible web
- C. Overhead projector and transparency showing nine patch grid

### 4 Assessment

The teacher will observe the children work at all stages and give assistance or advice when needed. The teacher will lead the class in a discussion with questions such as:

- A. Where you surprised at the shape created when you folded the square in half?
- B. How many shapes did you find when you folded the square in half?
- C. Did any one find more than two different shapes when folding the original shapes in half? If so can you show or tells us about them?
- D. Would anyone like to share the personal significance of the material they brought to be in your square of the quilt?
- E. What could we do different next time to make this exercise even better?

Students will also be assessed on their terminology used concerning the transformation. Also students will be assessed on whether they can follow a sequence of directions concerning transformations.