

Algebra/Geometry Institute Summer 2003

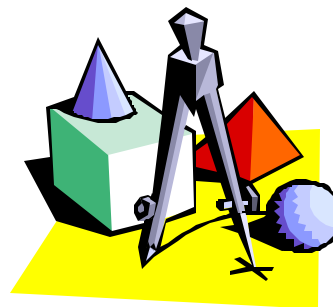
Lesson Plan Three

Faculty Name: Brenda Kirkham

School: Shelby Middle School

City: Shelby

Grade Level: 5



Objective: Explore geometric patterns and relationships.

1 Teaching objective(s) The student will identify lines of symmetry.




2 Instructional Activities

- ✚ Pair students with a partner.
- ✚ Issue supplies needed to complete the following activity.
- ✚ Have students draw a line down the center of the paper.
- ✚ Player one places a pattern block on one side of the line. Player two places an identical block on the other side of the line to form a symmetric image. Player two then begins the next round by placing another pattern block on the paper. This time player one must complete the symmetric image. Continue until each student has placed at least ten blocks on their created design. Have students discuss: How did they know where to place the pieces to match what their partner placed on the paper? Ask students: Do they have the same thing on both sides of their paper?
- ✚ Explain to students what they have done was line symmetry. (The two halves of the figure match exactly; they must have the same design on both sides.
- ✚ Have students complete the following activity: (attachment #1). Students may use pattern blocks for some shapes and a regular pentagon to complete activity and line of symmetry mirror.
- ✚ Select students to share once completed. Have students check their paper to see if their answers are correct. If not, have students to make corrections on their paper.
- ✚ **Follow-up:** Have students find five items at home that have lines of symmetry. Describe or draw the item and its lines of symmetry.

3 Materials and Resources

- ✚ Large sheet of paper (lineless)
- ✚ Pattern blocks
- ✚ Pencil
- ✚ Line of symmetry mirror-one per group
- ✚ Start with Manipulatives: Welchman-Tischler, Rosamond. (1992)

4 Assessment

-  Observation
-  Oral responses
-  Grade papers

Attachment #1

How Many Lines of Symmetry?				
	Triangle	Quadrilateral Trapezoid	Pentagon	Hexagon
0 lines of symmetry				
1 line of symmetry				
2 lines of symmetry				
3 lines of symmetry				
4 lines of symmetry				
5 lines of symmetry				
6 lines of symmetry				