

Investigations (3rd 9 weeks)

Book: Collecting, Counting and Measuring

Session: Investigations 6 Arrangements of Six

Pages: 78-85

1. Concept: Students use color tiles to make different arrangements of six with each tile touching at least one other tile.

2. CSO's

- M.O.K.1.8

3. Technique/Procedure

Introduction/Set

- 1) With the class, count out five tiles as a reference, then set out a pile of six tiles and have students estimate how many are in the pile. Have students explain their estimation.
- 2) Scatter 6 tiles on the floor
- 3) Model how to arrange these tiles to show six.
- 4) Explain that all tiles must touch in some way.
- 5) (At this point show the examples of arrangements that fit the rule of touching in some way)
- 6) Show example of arrangements that do not fit the rule.
- 7) Students will explain why these examples do not fit the rule.
- 8) Have a child arrange the tiles to show six making sure that all tiles touch in some way.
- 9) Give each child six color tiles and one-inch graph paper and have him/her find different ways to arrange the six tiles.
- 10) After a short amount of time, have each child decide on one way to arrange the six tiles.
- 11) After everyone has arranged the six tiles, discuss the different ways to represent the groups of six using numbers. (ex. $1+2+3=6$)

4. Closure: Record on chart paper, all of the parts of six as the children dictate them to you. Review all of the parts of six written on the chart paper.

5. Today's Math/Assessment:

- ❖ Students will use paper tiles, glue and one-inch graph paper to create their arrangements and represent the arrangement using numbers.





❖ Assess for the following:

Can the child:

- ✓ arrange six
- ✓ make each touch
- ✓ explain his/her arrangement
- ✓ find more than one arrangement
- ✓ record his/her work as a number sentence
- ✓ Does the representation match the arrangement?

Each student's arrangement will be placed in a "Book of Six" to be placed in the classroom library.

6. Materials:

-  Color tiles: at least 6 per student
-  Construction paper squares in colors to match the tiles
-  One-inch grid paper
-  Glue sticks

7. Vocabulary: arrange

8. Extension Activity:

- ❖ Give students oral directions and have them use their one-inch grid paper and 6 color tiles to create the arrangement.

- ❖ Have students give you oral directions to arrange 6 tiles on one-inch grid paper.