

# EISENHOWER PROFESSIONAL DEVELOPMENT PROGRAM

## Mathematics Within: Shape, Space & Measurement

### Lesson Plan

**Participant Name:** Rebecca Giles

**School District:** VCC

**Broad Topic:** Geometry

**Specific Topic: Transformation:** Reflection

#### Objectives:

- o Students will be introduced to appropriate terminology associated with transformation and reflection.
- o Students experience creating and recognizing reflection with hands-on manipulations.

#### Materials & Supplies:

- o Pattern blocks (lots)
- o Paper
- o Rulers
- o Pencils
- o Mirrors or miras

#### Lesson:

- o Introduction of self and teaching team.
- o Discuss meaning of transformation and reflection
  - Trans = across
  - Transform = to change
  - Re = back or again
  - Reflect = to turn, throw or bend off or backward
  - Reflection = production of image as if in a mirror
- o Students act out mirroring each other to become human mirrors
- o Students point to partner's eye which corresponds to their right eye then compares to where they would find their own eye in a mirror.  
"What did you notice?"
- o Introduce using pattern blocks in partners to create reflection. One student is "original figure" while the other is "image."  
Reverse roles.
- o Next, create second line of reflection (vertical). Students determine # of reflections possible. Begin building in opposite corners  
Stop. Reverse roles.
- o If time, try diagonal line of reflection.
- o \* Both original and image-makers cannot reach across line of reflection nor comment on accuracy.
- o After each time of building, activity is stopped and partners view construction from side view to determine reflection. If it is not an accurate reflection, why not?
- o Final: bring students to circle to review learning. Discover real-world connection to reflection (kaleidoscope.)
  - Scope = to see
  - Ask for other connection
  - "Trans-continental" = across continent

#### Where does this fit into curriculum:

- o Symmetry
- o Congruence
- o Tessellations
- o Connecting to real-world objects