

Project 3

Decoding Area

Objective: Child will be able to find the area of an irregular shape using various methods (counting, breaking design into colors).

Essential Question(s): What strategies can we use to find the area of an irregular shape?

Special Materials: paper and pencil for recording data

Bricks Required: 16x16 plates, various bricks for "drawing" an image

Project Structure:

Engage/Explore:

1. Give child a 16x16 plate and additional bricks of various colors and sizes. Ask child to make a two-dimensional design using the bricks, which can be abstract or representational. You may wish to limit child to choosing three or four colors.

Explain/Explore:

1. Discuss the concept of area, talking about counting studs, or using the arrays found in rectangles. Demonstrate this using your own creation.
2. Child can find area in various ways, and should keep track of their data:
 - a. Area of the whole image
 - b. Area of the unused part of the 16x16 plate
 - c. Area of each color they used
3. Encourage child to look for patterns in their creation. Do they tend to use the same brick size a few times? What colors do they use? etc.

