Square Foot Garden

Brief Description: Have students investigate area and perimeter by creating a garden plot using 12x12 inch squares. This activity is also great for garden planning.

Objectives: Students will be able to explain the concepts of area and perimeter. Students will be able to measure an area by counting square units.

Materials: 12x12 inch scrapbooking squares, at least one per student

Activity:

1. Give each student a square and have them form a circle.
2. Have students lay their squares one by one to form a "garden plot." Squares should not overlap and must touch the side of another square.
3. Have students discuss as a class the area and perimeter they formed.
4. Have students pick up their squares and create another "garden plot."

Discussion Questions:

-Did area change or stay the same with our new shape?
-Did perimeter change or stay the same?
-How could we make the smallest perimeter?
-Is our shaper realistic for a garden?

Optional Activity:

-Have students research plants they would like to grow in their square. Give students pom-pom balls (to represent seeds) and have them "plant" their square with proper plant spacing.

Square Foot Garden Standards	
MAFS.3.MD.3.5	Recognize area as an attribute of plane figures and understand concepts of area measurement. A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area. A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units.
MAFS.3.MD.3.6	Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).
MAFS.4.MD.1.3	Apply the area and perimeter formulas for rectangles in real world and mathematical problems.