



Square Foot Gardening



Purpose: Students will be able to explain the concepts of area and perimeter and measure an area by counting square units. Students will investigate area and perimeter by creating a garden plot using 12x12 inch squares.

Background: Square Foot Gardening was popularized by Mel Bartholomew, who has published multiple books on the subject. Square foot gardening allows for a large amount of food to be grown in a small amount of space. As a result, square foot gardens may require more nutrient inputs than gardening in rows. Plants are classified as extra-small, small, medium, and large. One can plant 16 extra-small plants in a square, 8 small plants in a square and 4 medium plants in a square, or 1 large plant in a square.

Materials: 12x12 inch scrapbooking squares, at least one per student and assorted sizes of craft pom poms

Activity One:

1. Give each student a square and have them form a circle.
2. Tell the students they are going to create a garden plan using their squares. 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. Ask students “is our shape realistic?”
3. Have students discuss as a class the area and perimeter they formed. Allow one student to use their feet to walk around the edge of the “garden” to calculate perimeter. Then ask them “can we use our feet the same way to calculate area?” And then talk about how to calculate the area.
4. Have students pick up their squares and create another “garden plot.” Ask them “did the perimeter stay the same?” Have them use their feet again to calculate the perimeter. Then ask them “did the area stay the same?”



Activity Two:

1. Leave the scrapbooking paper on the floor. Give each student a piece of paper that has a plant name and how many seeds that can be planted per square foot. Have student students grab the number of pom poms (to represent seeds) that are on their piece of paper.
2. Have students “plant” their pom-pom “seeds” on their square. You can give them information about spacing or choose to see what they decide.
3. Ask students “does is matter where we plant our seeds?” and “why does it matter?” This activity allows you to discuss proper plant spacing and plant location within their garden beds. Have students think about plant height and whether they may shade other shorter plants. The next activity will help students visualize proper plant spacing.

Activity Three: (Optional: If you plan to create a square foot garden.)

1. Have students research which plants can be planted in the spring and in the fall. This can be done by reading the back of a seed packet. Students need to know how much space the adult plant will need to plan their square foot garden.
2. Give each student a paper towel that is a square foot. This will be used to plant their assigned square foot in the garden.
3. Have students fold their paper towel along the dotted lines in the image below right.
4. Have students decide if they will be planting extra-small (purple), small (orange), medium (blue), and large (pink) plant seeds. They will glue the seeds on their paper towel according to the image below. They can plant this paper towel right into their garden.

