

Recommended Grade Level:

Pre-K-5

Season:

All

Indoor

Square Foot Garden Map

Description:

Using square foot gardening proportions (12" x 12"), students will explore number concepts, perimeter and area. Students will create a dream garden with their favorite produce using a planting chart. This activity can be applied to an outdoor raised bed by sectioning off with string.

Background:

Square foot gardening is easy. A raised bed is used and sectioned off in square foot grids. This technique produces the highest yield of crops for the space when the seeds are planted using the recommended quantities in each section. Guides give the specifics of how much to plant in each square foot.

Materials:

- Garden Plot
- Square Foot Garden Planting Guidelines
- Square Foot Dream Garden Worksheet
- Four rulers

Preparation:

Make copies of the Square Foot Garden Planting Guidelines and the Square Foot Dream Garden Worksheet for each student.

Activity:

1. Gather students and review the needs of plants (water, sunlight, nutrients, soil). Explain that plants also need the right amount of space to grow from seeds into healthy plants. When too many seeds are planted too close together, the plants will not grow properly and the harvest will be small.
2. Ask students how it feels when they're in a crowded environment (uncomfortable, hard to move or breathe). Explain that this is how plants also feel when they don't have enough space to grow. Square foot gardening helps plants have adequate space to grow healthy. Gardeners use rulers to make 12"x12" squares in their garden bed and plant a certain number of seeds in each square. Use the four rulers to demonstrate what a square foot looks like.

3. Pass out and review the Square Foot Garden Planting Guidelines. Tell students to notice the number next to each produce name. Explain that this number tells us how many of each type of plant should be planted in each square foot. Using a square foot planting guide helps gardeners grow the most produce possible for their garden. Have students share some of their favorite vegetables and herbs that are listed.
4. Give each student the Square Foot Dream Garden Worksheet and have them use the Square Foot Planting Guidelines to fill in the worksheet with fruits and vegetables that they would like to grow in a dream garden. When they have finished, have students share their gardens with the class.

Tying it Together:

1. What are the needs of plants?

Water, nutrients, soil and the right amount of space.

2. Why is it important to give plants space?

It helps them grow healthy and the plants will produce more fruits and vegetables.

Special Care:

Students can use the Drag and Drop Square Foot Planner website and count how many of each vegetable or fruit can be planted in each square. When you drag a picture to a square, it drops it into the planner with the number of plants that should be planted in each square.

<http://www.gardeners.com/on/demandware.store/Sites-Gardeners-Site/default/Page-KGPJS>

Digging Deeper:

Create a square foot garden in your plot. Students can use rulers to measure 12-inch increments around the perimeter of the raised bed. Using string and a staple gun, create your square foot grids. Plant seeds and plants. As time goes by, collect data on growth, success of harvest, etc.

National Standards:

CCSS.MATH: Mathematical practice.

NGSS: Interdependent relationships in ecosystems.

NGSS: Structure, function, and information processing.

Lesson Extensions:

Language Arts: Create gardens based on a theme (salsa, vegetable soup, history, color garden, etc.). Students can write a composition about the theme of their garden and why each plant was used and how it ties into the theme.

Math: The group collects data and shares the quantities of what students would plant in their dream garden. For example, number of kids who wanted to grow carrots, lettuce, etc.

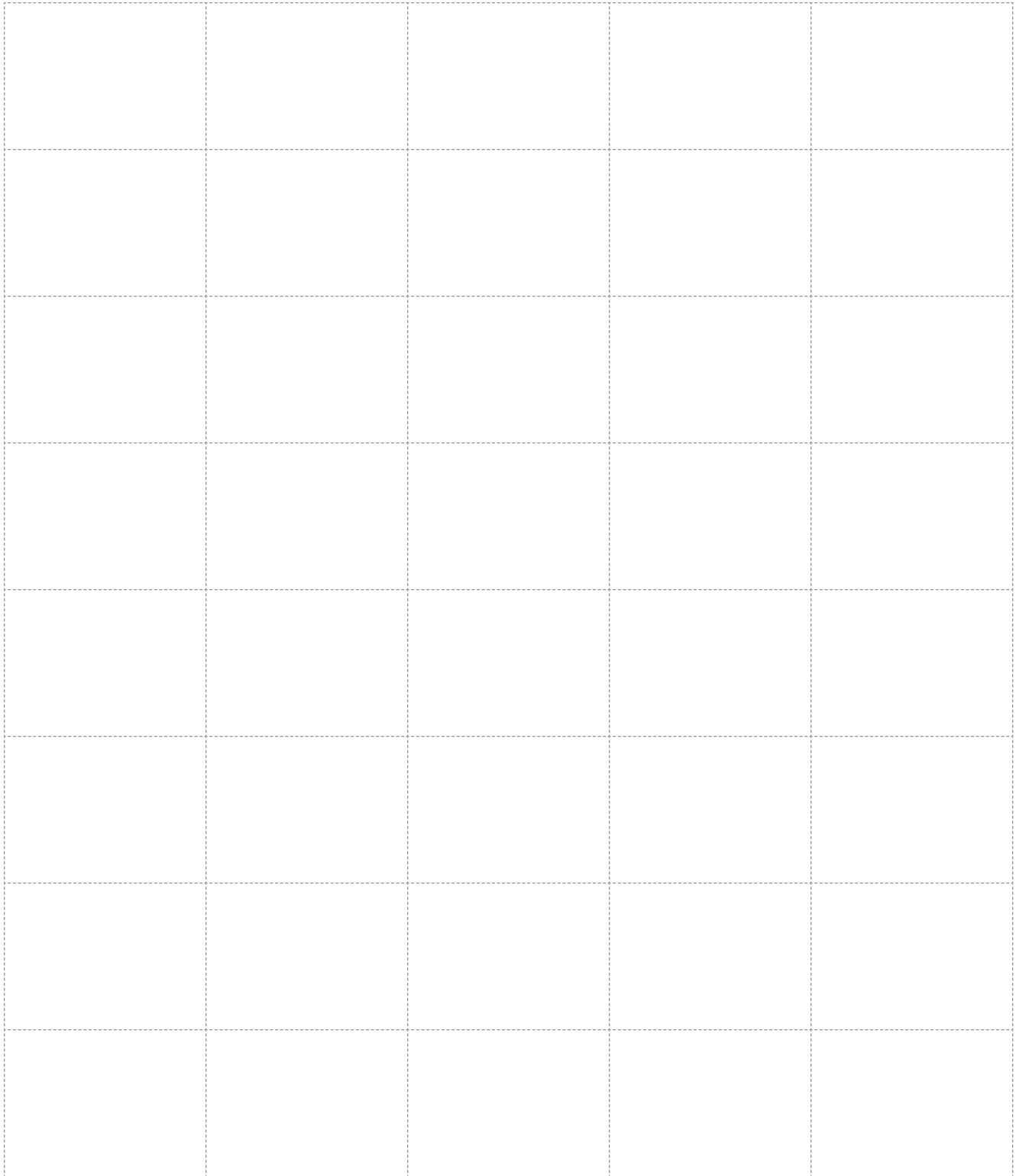
Practice number concepts: How many carrots can grow in a square foot? How many cucumbers? How many more carrots can be planted in a square foot than cucumbers?

Science: Use one square in the garden to overseed (put too many seeds in the square, not following planting recommendations). Compare the growth of a square that is seeded following planting directions and to the one with too many seeds. Observe and compare throughout the growing period.































Literature Connections:

All New Square Foot Gardening –The Revolutionary Way To Grow More In Less Space by Mel Bartholomew

Square Foot Dream Garden



Square Foot Planting Guidelines

 Beets 9	 Kale 1	 Melons 1	 Cucumber 1	 Cilantro 4
 Carrots 16	 Collards 1	 Squash 1	 Okra 1	 Basil 4
 Turnips 9	 Cabbages 1	 Tomatoes 1	 Peppers 1	 Oregano 4
 Radish 16	 Swiss Chard 4	 Artichoke 1	 Pumpkins 1	 Mint 4
 Small Onion 16	 Spinach 9	 Corn 4	 Parsley 4	 Horseradish 1
 Large Onion 9	 Green Beans 9	 Eggplant 1	 Green Onion 16	 Ginger 1

Source: Square Foot Gardening. University of Wisconsin Extension. <http://fyi.uwex.edu/garden2table/files/2010/07/square-foot-gardening082009.pdf>