



HARVEST OF THE MONTH

April: Lettuce

Nutrition News—

Romaine and butterhead varieties are good sources of folate and vitamin A.

Darker green lettuce has more nutrients than lighter green lettuce.

Combine this cool weather crop with some more of your favorite veggies for a nutritious and tasty meal.



Did you know?

Lettuce is one of the oldest known vegetables and is believed to be native to the Mediterranean region.





DISCOVER AN ACRE

Standards of Learning:

Math: 3.7, 3.8, 4.7, 5.8

Objectives:

Students will be able to—

- Investigate perimeter and area using 12 inch squares to model a garden
- Measure the perimeter and area of a given space.

Materials:

- 12" ruler
- 12" x 12" construction paper (at least one square per student)



Background Knowledge:

The purpose of this activity is to provide students with a concrete and visual example of area and perimeter. Further, it will give examples of real-world applications for these math concepts in the context of designing and laying out a garden. In this lesson students will use one foot square pieces of construction paper to “plant” their garden. This is similar to a popular school garden layout – the Square Foot Garden. Square Foot Gardens are popular among classes and schools because each class or student can be assigned their own square within which to plant and harvest. It is also an optimal size for a child to use.

As mentioned in the Extension portion of this lesson, different plants can be planted within each square foot. Some will be planted one plant per foot, while others can be planted as 4, 9, or 16 per foot. The number of plants per square foot is dependent upon how large the plant gets. Because plants need sunlight, soil, water, and space to grow, planting too many in a square would cause them to not have adequate access to these growing requirements.

Popular plants to grow in a square foot garden are –

One plant per square foot (12 inches apart): peppers, "patio" (dwarf bush) tomatoes, potatoes, broccoli, cabbage, cauliflower, kale, head lettuce, New Zealand spinach, peppers, peanuts, potatoes, large sunflowers

Four plants per square foot (6 inches apart): leaf lettuce, parsley, Swiss chard, sweet corn (small varieties), mustard greens, basil, coriander, dill, parsnips, shallots, small sunflowers, turnips

Nine plants per square foot (4 inches apart): bush beans, spinach, leeks, anise, chervil, corn salad (mâche), mustard greens, nasturtiums

Sixteen plants per square foot (3 inches apart): carrots, beets, radishes, onions, cumin, garden cress

Procedure:

1. As a class, brainstorm the units we use to measure various things. Examples: an eraser – centimeter; length of a pencil – inch; height of a door – yards; etc.
2. Ask the children how we would measure the amount of space or surface that a large object would cover (the yards of our houses, the field a farmer would plant a crop on, the land our school sits on, etc.)
*Direct students to think about an acre, which is approximately 43,000 square feet.
3. Discuss measuring area and inform the students that we often use square feet to measure area.
4. Show students what a square foot looks like by drawing a square on the board that measures 1 foot on all four sides.
5. Tell the children that today they are going to be planting a garden.
6. Give each student several 12" x 12" pieces of construction paper. Explain each piece of paper is a square foot. It measures 1 foot x 1 foot. The area of one piece of paper is one square foot.
7. Clear a space in the classroom or go to a room such as the cafeteria where students will be able to lay all of the squares on the floor and view them.
8. Ask the students to place each square on the floor one at a time to create their garden. The field can be any shape but each square must touch at least one side of another square.
9. When all the squares are laid down, tell students that you now want to construct a fence around your garden. What do you need to know about the garden to know how many fencing supplies to purchase?
10. To answer this question students need to determine the perimeter of their garden by counting the outside edges. Bring in circulars from stores that sell landscaping materials, ask them how much the fencing supplies would cost. Is this the most cost effective shape for the garden? Point out that you will save money by having the smallest possible perimeter.
11. Next, find the area by counting the squares.
12. Collect the squares and have the students create a new garden (different shape). Again calculate the area and perimeter of the garden. *This will show students that while the perimeter may change, area does not change simply because the shape changes.

