

## Pumpkin Seed Packet Math

**OVERVIEW:** Planting seeds begins with understanding the instructions on the seed packet. In this lesson, students will map a pumpkin garden plot using the instructions on the back of a seed packet.

**GRADES:** 3-5

**OBJECTIVES:** The student will be able to:

- Read instructions on the back of a pumpkin seed packet and follow the instructions to plan a garden plot.
- Use the instructions on the back of the seed packet to create a map of a garden plot on graph paper.
- Calculate and plot the distance between hills of seeds in a garden plot.
- Calculate how many hills of pumpkin seeds can fit in the garden plot.



### **MATERIALS:**

Pumpkin seed packets.

Graph paper with one-half inch squares

### **BACKGROUND**

Pumpkins (and other members of the squash family, such as zucchini, cucumbers, and melons) are often planted in small hills or mounds. These vegetables and fruits grow on long trailing vines that require a lot of room. Pumpkin hills should be about 6 inches high and three feet wide. The mounds should be planted about four feet apart.

You can plant six pumpkin seeds in each hill, but after the seeds sprout, you should thin them to only three plants per hill. This means that after the seeds sprout, you should pull out the smallest seedlings, leaving only three plants on the hill.

Pumpkins can be planted after the danger of frost has passed. In New Jersey, this is usually in mid-May. The pumpkins will take three and half months to grow before harvest.

## PROCEDURE:

Divide students into groups of three or four if you want them to work in small groups. Tell students that they are going to draw a pumpkin garden plot on graph paper using the planting instructions.

Tell students their pumpkin garden plot must be a rectangle with at least 8 feet on the short sides and 16 feet on the long sides, but can be larger if they choose.

Show students the *Planning Your Pumpkin Plot Worksheet*. Ask them to complete the worksheet *before* they start drawing their plot on graph paper.

Ask students to draw the size of their garden plot in the middle of the graph paper. Tell them that each square inside the garden plot will equal a square foot, and that they must remember to calculate the space between *hills in one row* as well as the space between the *rows of hills*.

## EVALUATION:

Student successfully completes a drawing of the pumpkin plot on graph paper using the instructions.

## New Jersey Learning Standards

*Math:*        3.MD, 3.NF     4.NF, 4.MD.A,B     5.NF, 5.MD.A

*Science:*    3:LS1.B     4:LS1.A     5:LS2.A

Name \_\_\_\_\_

## Planning Your Pumpkin Plot Worksheet

Pumpkins are usually planted in small hills of soil. The hills should be three feet wide. There should be at least four feet in between each pumpkin hill. Before you draw your pumpkin plot on graph paper, map it out in the space below. Your plot must be a rectangle with at least 8 feet on the short sides and 16 feet on the long sides. You can make your plot bigger if you want.

Pumpkins take about three and a half months to grow. If you planted your pumpkins today, on what date would you be able to harvest them? \_\_\_\_\_

Actually, pumpkins need the hot summer sun to grow, so in New Jersey they are planted in mid-May.