



Planting the Garden

Using the map from the previous workshop, students measure out square feet in the garden and plant early crop seeds directly into the soil. We introduce the concept of a “variety” by planting two varieties of each vegetable in order to compare their differences and similarities as they grow.

Grade Levels

Grades 3-4

Curriculum Objectives

Grade 3

Mathematics: Measurement

Overall Expectations

- Estimate, measure, and record length, perimeter, area, mass, capacity, time, and temperature, using standard units.
- Compare, describe, and order objects, using attributes measured in standard units;

Specific Expectations

- Estimate, measure, and record length, height, and distance, using standard units (i.e., centimetre, metre, kilometre);

The Arts: Visual Art

Overall Expectations

- Apply the creative process to produce a variety of two- and three-dimensional art works, using elements, principles, and techniques of visual arts to communicate feelings, ideas, and understandings;

Grade 4

Mathematics: Number Sense and Numeration

Specific Expectations

- Demonstrate and explain the relationship between equivalent fractions, using concrete materials.

Mathematics: Measurement

Overall Expectations

- Estimate, measure, and record length, perimeter, area, mass, capacity, volume, and elapsed time, using a variety of strategies
- Determine the relationships among units and measurable attributes, including the area and perimeter of rectangles

Specific Expectations

- Estimate, measure, and record length, height, and distance, using standard units (i.e., millimetre, centimetre, metre, kilometre);

The Arts: Visual Art

Overall Expectations

- Apply the creative process to produce a variety of two- and three-dimensional art works, using elements, principles, and techniques of visual arts to communicate feelings, ideas, and understandings;

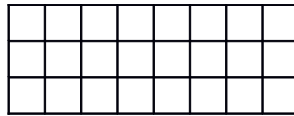
Materials

- Two seed varieties each for each vegetable to be planted in the garden (for a recommended list, see the GUO website), placed back-to-back in a clear Ziploc sandwich bag.
- Tape measurer
- Twine
- Garden Planning Cards
- Stapler or staple gun
- Sharpie paint markers
- Materials for creating garden signs (tiles, large popsicle sticks, smooth rocks, etc.)
- Garden map from previous workshop
- Veggie Guide worksheets for each student

Activity

Part 1: Fractions in the garden

Have the students work together with pieces of string or twine, to re-create the 8 by 3 grid of their map onto the raised bed (or divide the bed into square feet according to the size of your particular garden bed). This can be done by measuring with the tape measurer, or by guiding the students in estimating fractions by moving the twine to divide the box equally (start by dividing the bed in half widthwise, then in quarters widthwise, then in thirds lengthwise). Staple the twine to the box frame to keep in place. Most gardens will look like this:



Ask the students to use the garden planning cards to identify what will be planted in each square by referring to the map.

Part 2: Heirloom varieties

Explain to the students that they will be planting two varieties of each vegetable in the garden. Explain the word “variety.” Most students will not recognize this word, but will know names of different apple varieties, so this can be a good point of reference.

- How many different varieties of apples can you name?
- How can we tell one variety from another? (colour, taste, size, shape)

Like apples, the vegetables in our garden come in all different shapes, sizes and flavours – even if we might only see one kind (or “variety”) in the grocery store. In fact, some of the varieties we’ll be planting might be quite rare!

Show examples using the images on the seed packets (purple carrots are a good one; or white radishes). By planting two varieties of each vegetable, we’ll get to observe the differences while they grow.

For each pair of students assign one of the vegetables they will plant in the garden during this session. Each student chooses one of the two varieties made available to them in the Ziploc bag (remind students that they don’t need to open the bag to identify the varieties!)

Invite students in small groups to plant their seeds in the garden. While students are waiting for their turn to plant, they can work on their *Veggie Guide* worksheet. Identify the variety planted in each square using the chosen plant markers.