



Growing Up Organic operates on traditional and unceded territory of the Algonquins: now known to many as Ottawa, and now home to many from across Turtle Island and beyond.

Grades 3-4

Transplanting

Mindfulness minute: If it speaks to you, take two minutes with your students before this workshop to slow down and root down with this mindfulness minute.

LESSON FOCUS AND GOALS

* Adapted from Molly Reid's Exploring Garden Ecosystems lesson on the TeachingChannel.com

LEARNING OBJECTIVES

Grade 3

Science and Technology: Understanding Life Systems

OVERALL EXPECTATIONS:

- 2 - Investigate similarities and differences in the characteristics of various plants, and ways in which the characteristics of plants relate to the environment in which they grow;
- 3 - Demonstrate an understanding that plants grow and change and have distinct characteristics.

SPECIFIC EXPECTATIONS:

- 2.2 - Observe and compare the parts of a variety of plants (e.g., roots of carrot; stem of broccoli; leaves of lettuce);
- 2.3 - Germinate seeds and record similarities and differences as seedlings develop
- 2.6 - Use appropriate science and technology vocabulary, including stem, leaf, root, pistil, stamen, flower, adaptation, and germination, in oral and written communication;
- 2.7 - Use a variety of forms (e.g., oral, written, graphic, multimedia) to communicate with different audiences and for a variety of purposes (e.g., make illustrated entries in a personal science journal to describe plant characteristics and adaptations to harsh environments).
- 3.2 - Identify the major parts of plants, including root, stem, flower, stamen, pistil, leaf, seed, and fruit, and describe how each contributes to the plant's survival within the plant's environment
- 3.3 - Describe the changes that different plants undergo in their life cycles
- 3.6 - Describe ways in which plants and animals depend on each other

Health and Physical Education: Social-Emotional Learning Skills

SPECIFIC EXPECTATIONS:

- A1.6 - Apply skills that help them think critically and creatively as they participate in learning experiences in health and physical education, in order to support making connections, analysing, evaluating, problem solving, and decision making

Mathematics: Spatial Sense

OVERALL EXPECTATIONS:

- E1 - Describe and represent shape, location, and movement by applying geometric properties and spatial relationships in order to navigate the world around them

SPECIFIC EXPECTATIONS:

- E1.4 - Give and follow multi step instructions involving movement from one location to another, including distances and half- and quarter-turns



Grade 4

Science and Technology: Understanding Life Systems

OVERALL EXPECTATIONS:

- 1 - Analyse the effects of human activities on habitats and communities;
- 2 - Investigate the interdependence of plants and animals within specific habitats and communities
- 3 - Demonstrate an understanding of habitats and communities and the relationships among the plants and animals that live in them

OVERALL EXPECTATIONS:

- 1.1 - Analyse the positive and negative impacts of human interactions with natural habitats and communities, taking different perspectives into account, and evaluate ways of minimizing the negative impacts
- 3.3 - Identify factors (e.g., availability of water or food, amount of light, type of weather) that affect the ability of plants and animals to survive in a specific habitat;
- 3.4 - Demonstrate an understanding of a community as a group of interacting species sharing a common habitat
- 3.7 - Describe structural adaptations that allow plants and animals to survive in specific habitats



MATERIALS NEEDED

Seeds and seedlings to be transplanted
Spades
Watering Cans
Plant part role cards
Garden Bug Tally sheets
Clipboards and pencils

STRUCTURE / ACTIVITY

Divide the class into three equal groups and rotate through the following stations after explaining the overall activity. Allow 15 minutes for each station. *Stations 1 and 3 function best with a facilitator

Station 1: Plant parts

As a group, students will match the roles provided to the corresponding part of the plant using clothespins to attach the roles to the corresponding parts. Encourage discussion and consensus.

Why do we think this role matches this plant part or another?

After roles have been matched with plant parts, ask students to find examples of each part in the garden, sketch/diagram the part, and label it in their journals.

- Which plants are in flower?
- Which plants have large stems?
- What do the different leaves look like?

Station 2: Who lives in our garden?

Distribute clipboards and worksheets to each student and invite them to explore the garden area in search of bugs that inhabit the garden. Discuss how we have changed the environment and have as a consequence attracted different creatures to this space that perhaps otherwise would not be here. Ask the students to draw quick sketches of the insects they find, count the total number of each type of insect and finally take notes including whether they think the creature plays a detrimental or beneficial role in the garden.

Station 3: Transplanting

Students will transplant their seedlings into the garden. They can do this in pairs if the number of seedlings outweighs the number of spaces for transplanting in the garden. Ask the students to refer to their garden map from the planning workshop to identify: where each transplant will go; where new seeds need to be sown directly; and to decide who will plant what and where.

Once the seedlings are planted, students record their observations on their plant observation sheets, a continuation of the previous seed starting workshop.