

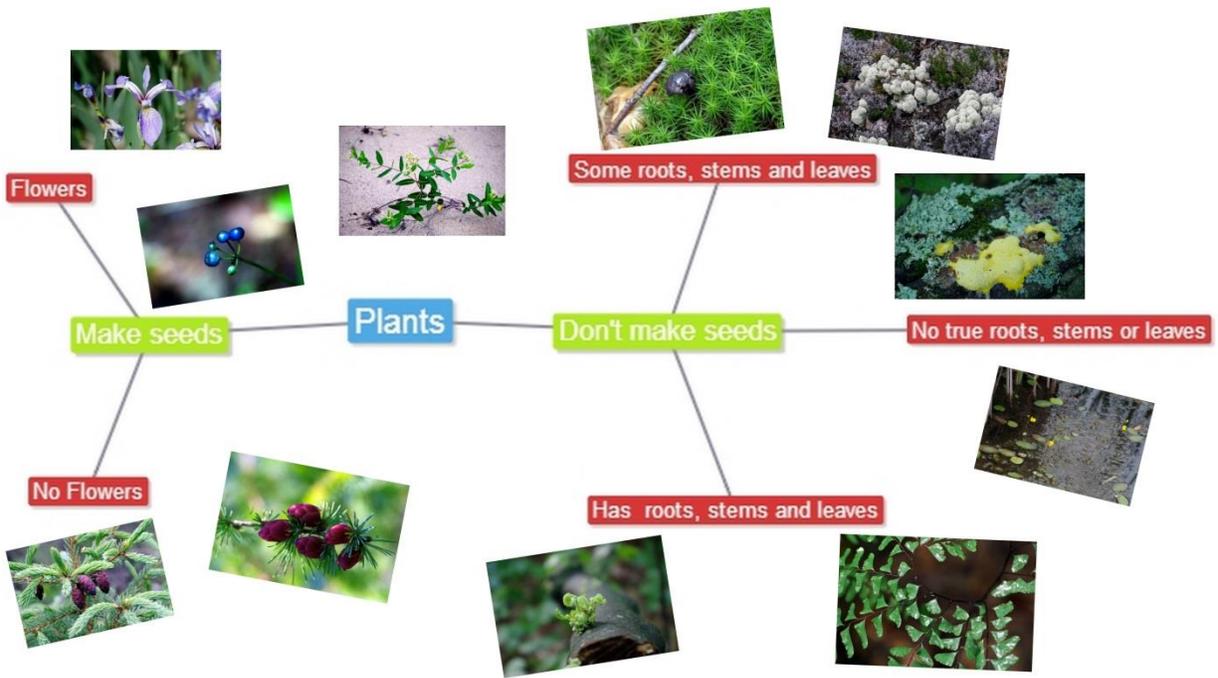
The Environmental education program at CPAWS Ottawa Valley offers outings linked to the Ontario Curriculum for students in elementary schools:

Grade 3: Understanding Life Systems: Diversity of plants, their adaptation to the environment and role for human beings.

We will organize a wilderness trip to Gatineau Park in order to explore the amazing plant diversity found in the Ottawa Valley and demonstrate the growth and changes of plants (in fall, spring or, summer). A full day outing can be arranged for grade 3: The day would be divided into two parts. The first portion of the day students will get to learn about the diversity of plants and their adaptation to the environment. The second part of the trip will focus on human impact on plants and the role of plants in human life.

Part 1:

During our trip to the park we'll see and touch different types of plants – algae, moss, lichens, ferns, trees and herbaceous plants. Students will be able to compare several species of plants and flowers while trying to describe their similarities and differences. We will study dry leaves, seeds and cones, and learn to identify trees from the information that we can gather from them.



Students will learn to identify the different parts of plants, including roots, stems, flowers, stamens, pistils, leaves, seeds, and fruit. They will also understand the role that each part plays in relation to the plant. Students will play a game in which they will build a tree using their own bodies as tree parts; this will help them learn about the different parts of trees as well as their service to the living system.

We will then give students a chance to compare various aquatic and terrestrial plants. Afterwards they will learn about various aspects of the plants that they studied (which plants produce seeds, which



plants have flowers, what are their habitats).

We'll then go on a little historical rampage using our imaginations. Students will first go to the prehistoric era, when life was just starting up in the oceans and the first aquatic plants were appearing. Then we'll fast forward through the time and see how the first terrestrial plants emerged, we will go through the evolving process when the first plants started turning into ferns. As well we will discuss the giant plants that occupied the world during the time of the dinosaurs, and

find out the conditions that these plants needed in order to survive and thrive. Then we'll go back to reality and inspect plants and their components in order to see what other evolutionary changes these plants have gone through.

We'll play several games to explore the environment, recall the main groups of plant species and share some simple identification secrets. When students eat lunch they will list plants that were used to make the food.



Part 2:

The second part of our outing will start by taking some deep breaths of the forest air. Then we'll have a quick discussion as to why coniferous and deciduous trees have different leaves. Students will then have a look at the ways in which plants and trees are used; for example for food, timber, textiles and firewood.

We'll discuss how our current civilization would not be able to sustain itself for very long if we would not have a good way of getting our resources. This will lead us into a discussion on agriculture and once again we will envision ourselves traveling back in time when people had first started the process of agriculture. We'll study the current food production systems and agricultural fields near Ottawa and see what changes have occurred since ancient times. Students will also make a list of plants that are grown by Ontario farmers (grains, berries, fruits, vegetables and greens), we will also discuss where most farms are located and why.



We'll explore how plants and trees are used for other human purposes such as: the construction of homes and ships, the production of fabric and paper, and heating. We'll discuss fossilized carbon deposits: coal, oil and gas, and how the energy was accumulated by plants in ancient times. Students will explore the ways in which our society is dependent on plants to accumulate energy.

Lastly we'll investigate what environmental conditions may threaten the survival of plant species. We will let students compare the different soil types of the forest floor and rock outcrops. Ultimately we'll talk about rare and threatened plants in Gatineau Park and the role of parks and other protected areas in the conservation of species.

Students will play educational games to help them better understand plants and their adaptation.

