



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

Grade 6: Understanding the Biodiversity as a Life System:

In Grade 6 students will investigate an enormous and very complex issue: biodiversity. Simply put biodiversity can be described as the variety of plants and animals (species) in a region where they reside (ecosystems) it also includes their interactions. Biodiversity covers the differentiations in genes, an example of this would be a fruit tree. A person can find several differences between fruit even if they come from the same tree. Not every fruit will have the same colour or shape and they might not taste the same, this shows the variations that could occur in one species due to minuscule differences in the genetic makeup.



Due to the wide field that is covered by “biodiversity” we would suggest to organize an “expedition” to explore and categorize the wilderness in either Gatineau Park or Mac Skimming. These areas are both rich in biodiversity and provide many great examples of interaction between species. Gatineau Park or Mac Skimming will both allow us to compare biodiversity in different habitats such as: forest, wetland, and farm.



Examples of genetic diversity are observed every year in Ottawa during the Tulip Festival

A day long outing can be arranged for grade 6 students. As always, the day would be divided into two parts focusing on different aspects of the curriculum. During, the first part of our outing, students will explore the diversity of living organisms in wild areas such as the forest or wetland. As they investigate students will classify living objects according to their characteristics and specific traits. The second part of our outing will focus on areas that have been inhabited by humans. Students will repeat the morning activities and collect data on biodiversity from a farm or urban area. They will compare their findings and make a conclusion on the difference of biodiversity in areas that are inhabited by humans compared to those that are not. We will teach the students several simple protocols on collecting scientific data in the field so that during the outing students will be able to collect “field data” on plants and animals by themselves. In order to not bring any harm to living organisms, we motivate teachers and students to bring several cameras for our “expedition”. We will have the opportunity to take pictures of all the living things and creatures that we will find during our hike.



Our goal is to explore the diversity of animal and plant species and calculate the number of species in each group. In order to accomplish this we will divide the class into several groups and give each group a specific category to focus on. The different sections that each group will investigate include trees, seeding plants (coniferous and flowering), non-flowering plants (moss, ferns, lichens, etc.), vertebrate animals, and invertebrate animals. The groups will use different methods to identify plants and animals such as by their tracks, their voices, signs that were left behind or by just plain observation. Each student

group will have a leader, who will write down the information on the observations and keep records from the outing. Adults will also assist each group in the data collection process. Afterwards we'll evaluate the diversity of habitats and communities around Ottawa such as the urban, farm, forest, wetland, grassland, and bog habitats.

These activities will teach students some practical ways of classifying wild things. Students will describe not only the specific traits of the categories, in which they were involved, but they will also try to classify the living organisms farther into individual groups and sub-groups. Birds of prey and passerines (songbirds), rodents and carnivores, the daisy family (Compositae) and the carrot family (Umbelliferae), and dragonflies and butterflies, are all examples of ways in which you can further divide the categories. In the class students can unite the field data that they collected and use it to construct a full picture of the habitat that they explored.

We will help the students and prepare sheets that will make the data collection process easier. Each group will have their own set of sheets that is best suited for the category that they will be studying.

During the outing we also will talk about the role of parks, and why parks support the protection of biodiversity. If we find some invasive species in the area we'll talk about how they compete and interact with native species in the Ottawa Valley and how their presence affects the local wildlife, in both good ways and bad ways.

Games: During our expedition, students will have an opportunity to relax, and play some intellectual games such as Owls & Crows (to review new concepts of biodiversity); Food Chain (the concept of ecosystems through the eyes of aliens having their first interactions with Earth) and "Who am I?" (each student has a card of an animal or plant found in the Ottawa Valley – the goal of the game is to find out what it is by asking other people yes or no questions.)

