Plant Identification and Ecology

Grades: 3-5

Standards
Michigan K-12 Standards in Science

Next Generation Science Standards

STEM Connection
Learn and identify the different adaptive strategies plants have devised to grow into thriving species.

Urban Futures Connection
Students will discuss the importance of being able to identify plants, including the ones in their own backyards and neighborhoods.

Take Home
Activity worksheets are available via email upon request.

Overview

In this program students will learn about plant identification, classification, and ecology while exploring different parts of a forest community.

Details

- This program lasts 1½ -2 hours and can be adapted to suit your needs
- Offered year round; plant species and identification characteristics may vary by season.
- Appropriate for Grade Levels 3-5

The Experience

In this program students will be engaged in a multifaceted program experience with activities that may include:

- Using investigative techniques to find different patterns, shapes, and textures of various trees, shrubs, and wildflowers.
- Learning to use a dichotomous key to identify a small selection of trees within a forest community.
- Learning to recognize different types of native plants that are the most beneficial to local wildlife.
- Observing how forests are not all the same, and vary by age, location, and species composition.
- Discussing the various ecosystem services that forests provide.

Helpful Hints

This program will be held in the great outdoors, rain or shine, please make sure students are dressed for the weather.

Science Standards

3rd Grade
3-LS3-1
Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.

- Students will observe plants of different ages and determine if they are similar or different in structure based on plant species.

4th Grade
4-LS1-1
Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

- Students will observe and consider how plant adaptations impact the survival of different plant species within diverse habitats.

5th Grade
5-PS3-1
Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.

- Students will consider how diverse plant communities create healthy food webs.

3rd - 5th Grade
3-5-ETS1-1
Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

- Students will observe and discuss how plants make trade offs in physiology and reproduction due to limited resources.