

Outdoor Environmental Education



Appreciation Leads to Responsibility

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*An adventure in Ecosystems that
will last a lifetime!*

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Eco Quest Units Available

Captain Planet:

Objective: The students will be able to explain negative impact humans can have on the world around them. They will be able to discuss environmentally friendly alternatives to common pollutants and the difficulty of reversing the effects of pollution.

Overview: The purpose of this class is to discover human's impact on the environment. Throughout the class students will identify the effects of manmade pollutants on animals and their habitats. They will be exposed to environmentally friendly alternatives to common pollutants and experience first hand the difficulty of reversing the effects of pollution.

Activity 1: The Irreversible Oil Spill

Activity 2: Oobleck- The Environmental Alternative

Activity 3: Dirty Water- Reversing the Effects of Pollution

Ready, Set, Grow

Objective: Students will be able to explain what factors affect a plant's growth and seed germination. Students will design an experiment that includes observing the difference between a control and a variable

Overview: What do we need for our forests to survive? Students learn what it takes for a seed (radish, grass, flower) to develop into a beautiful plant through three different activities. Using household items, students design and make their own seed necklaces and chia pets. Using experimentation, students study what happens when amounts of light and temperature are changed. Students discover that temperature, water, and sunlight affect a plant's ability to grow through photosynthesis. Finally, students examine the importance of wildlife in plant seed dispersal and discuss this relationship.

Activity 1: Seed Necklaces- Time to Germinate

Activity 2: Chia Pets- What do we need to grow?

Activity 3: Seed Need

Have to Have a Habitat

Objective: Students will investigate what impact animals have on their environment and will be able to identify how the animals adapt to new environments and environmental changes. The students will be able to list the four essential elements of a habitat.

Overview: What impact do animals have on their environment and how do animals adapt to new environments and environmental changes. All animals have homes and in this activity students explore the many different homes around Hazen's property.

Activity 1: Habitat Hunt

Activity 2: Designing Wildlife Habitats

Activity 3: Habitat Shrinks- Humans Killing Habitats

Slippery Homes:

Objective: Students will be able to demonstrate different means of collecting specimens from Cedar Lake. They will observe and record their findings. The students will determine the quality of water in Cedar Lake and record it in Camp Hazen YMCA record book.

Overview: Ponds, lakes, and streams are habitats for millions of creatures. Students will explore aquatic life and determine the quality of water in Cedar Lake. Students are introduced to the world of *macroinvertebrates* and how they relate to the cleanliness of our waters. Students will be exposed to different means of collecting specimens and observation such as dip nets, kick nets, and cast nets. They will become comfortable using magnifying glasses and gathering data.

Activity 1: What's in my Net?

Fast Food:

Objective: Students will be able to identify organisms that are producers and consumers. They will be able to describe a common food web and trace its origin back to photosynthesis and the sun. Students will be able to define the terms predator and prey and discuss ways that different prey are able to protect themselves from predators.

Overview: Students participate in four different activities that focus on the predator-prey relationship amongst the animal kingdom. Students will first illustrate some common meals and trace their roots back to the sun. In the second activity, students will simulate a common food web and talk about what happens when not all of the links are present. In the third activity, students practice being both the predator and the prey in an interactive game throughout the forest. The final activity will have students focusing on how animals use camouflage as a means of defense.

Activity 1: What's for Dinner?

Activity 2: The Web of Life

Activity 3: Predator Prey

Activity 4: The Unnatural Trail

A Bug's Life:

Objective: Students will explore how things decompose in nature and identify organisms that live in, feed on, or lay eggs on a rotting log. They will understand the role of decomposers in the ecosystem.

Overview: Students will be looking closely at similarities and differences of physical structure of insects. They will use collective nets, identification books, and hand lenses to investigate the complete habitat considering food sources, protection, adaptations, moisture, light, and other physical needs. Students discover how decomposers and other bugs, slugs, and crawly things impact the life cycle around them.

Activity 1: Bug Out

Activity 2: Small Seek



Tree-Tectives:

Objective: Students will use their five senses to discover the physical characteristics of trees. Students will be able to name and describe the different parts of a tree and discuss how each part is interrelated. Students will be able to describe how abiotic factors such as temperature, water and sunlight affect plants' ability to create their own food through photosynthesis. Students will be able to describe human factors that affect the success and health of plantlife.

Overview: Tree-tective will focus on the forest ecosystem, specifically the individual tree. They will participate in four activities that will have them exploring, simulating, and hypothesizing. Students will first identify the physical characteristics of a tree by venturing into the forest and using their sense of touch. Next, they will play a game which will have them simulating the different parts of a tree. In the third activity students practice becoming a tree and gathering the essential elements they need for survival; sunlight, water, and nutrients. The final activity will have students identifying healthy and unhealthy trees and discussing how humans affect these characteristics.

Activity 1: My Friend the Tree

Activity 2: Build a Tree

Activity 3: Ever Tree for Itself

Activity 4: Trees in Trouble

Earth Matters:

Objective: Students will understand that what lies underneath the surface of the the Earth is a precious and finite resource. Students will understand that changes to the Earth's environment have an impact on all of the populations that live in that environment. Students will be able to identify different types of soil according to their color, texture, and permeability. Students will gain an understanding of the mining industry and its positive and negative affects on the Earth.

Overview: In this unit on the Earth as a natural and finite resource, students will perform simulations and experimentations to gain a better comprehension of what lies beneath. The students will be involved in hands-on experimentation as well as group discussion. In the first activity, the students must simulate a portion of the mining industry. They will be responsible for running an economically successful and environmentally friendly mine. In the second activity, the students will explore the different types of soils that are in the ground at Camp Hazen YMCA. They will practice collecting and analyzing samples and drawing conclusions based on those samples.

Activity 1: Cookie Mining

Activity 2: Soil Particle Layering



Water World:

Objective: The students will study the quantity of water upon and underneath the Earth's surface. They will discuss ways that humans and animals use water and formulate ideas about conservation. Students will investigate the behavior of water and how it relates to soil erosion and devise methods to control erosion. Students will analyze what happens to plants, animals, and the environment when a water source becomes contaminated.

Overview: Students participate in demonstrations, simulations, and games to illustrate the importance of our Earth's water as a resource. They discover how little of the Earth's water is actually usable water and work together to investigate the best ways to conserve this precious resource. Students work within groups to create methods of preventing soil erosion. They play a game to illustrate what happens when pesticides enter an ecosystems water source and the deadly impact this can have.

Activity 1: Water, Water Everywhere!

Activity 2: Stop! Erosion!

Activity 3: Deadly Links- There's Poison in our Water

Stalking the Wild Beast:

Objective: The students will be able to explain how populations in our local ecosystem are affected by biotic factors such as other populations and abiotic factors such as soil and water supply. Students will be introduced to how populations are affected by predator-prey relationships.

Overview: The purpose of this class is to understand how different animals live in our surrounding environment. Throughout the class students will learn how to track and identify different animals that have made the woods at Camp Hazen YMCA their home. Students will also learn the different signs that animals leave behind when they live in an area. Participants will discover how prey navigate and find food whilst avoiding the clutches of the relentless predator. We will introduce the idea of how surroundings, like water, affect where an animal will choose to live. Finally, participants will understand that all animals big and small are really striving for the same basic need for survival.

Activity 1: Track Pads

