

## **Ecology Fair**

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**Summary:** This outdoor field trip focuses on Ecology. Through a guided scavenger hunt, Project Learning Tree activity and educational fair, students will explore ecological concepts including soil, wildlife, invasive species, water quality and fire.

**Goal:** To provide students with an opportunity to investigate, discover, and learn about ecology through hands-on, interactive and self-guided exploration.

**NV Standards:** ***Scientific Inquiry (Nature of Science)***

- **N5A** Students understand that science involves asking and answering questions and comparing the answers to what scientists know about the world.

***Earth's Composition and Structure***

- **E5C Students** understand that features on the Earth's surface are constantly changed by a combination of slow and rapid processes.
  - E.5.C.5 Students know soil varies from place to place and has biological and mineral components.

***Heredity***

- **L5A** Students understand that some characteristics are inherited and some are not.
  - L.5.A.1 Students know some physical characteristics and behaviors that are inherited in animals and plants

***Structure of Life***

- **L5B** Students understand that living things have specialized structures that perform a variety of life functions.
  - L.5.B.1 Students know plants and animals have structures that enable them to grow, reproduce, and survive. E/S

***Organisms and their Environment***

- **L5C** Students understand there is a variety of ecosystems on Earth and organisms interact within their ecosystems.
  - L.5.C.1 Students know the organization of simple food webs. E/S
  - L.5.C.2 Students know organisms interact with each other and with the non-living parts of their ecosystem
  - L.5.C.5 Students know plants and animals have adaptations allowing them to survive in specific ecosystems. E/S

***Diversity of Life***

- **L5D** Students understand that living things can be classified according to physical characteristics, behaviors, and habitats.
  - L.5.D.3 Students know differences among individuals within a species give them advantages and/or disadvantages in surviving and reproducing. E/S

**Common Core Mathematics:**

***Number and Operations - Fractions***

- **3.NF** Develop Understanding of fractions as numbers.

- 1. Understand a fraction  $1/b$  as the quantity formed by 1 part when a whole is partitioned into  $b$  equal parts; understand a fraction  $a/b$  as the quantity formed by  $a$  parts of size  $1/b$ . (*Birds and Worms*)

**Excellence in Environmental Education Guidelines:**

- **Strand 1.C- Collecting Information:** learners are able to locate and collect information about the environment and environmental topics.
- **Strand 1.E- Organizing Information:** learners are able to describe data and organize information to search for relationships and patterns concerning the environment and environmental topics
- **Strand 2.2.A- Organisms, populations, and Communities:** learners understand basic similarities and differences among a wide variety of living organisms. They understand the concept of habitat.
- **Strand 2.2.C- Systems and Connections-** learners understand basic ways in which organisms are related to their environments and to other organisms.

**Activity Stations:**

**Station #1: Birds and Worms – 30 minutes**

(From Project Learning Tree, Activity 25) Through data collection and interpretation, students will discover the value of protective coloration as they pretend to be birds in search of colored worms.

**Station #2: Guided Scavenger Hunt – 30 minutes**

In pairs, students will solve clues and complete min-activities related to different ecological concepts at different designated points in a guided scavenger hunt.

**Station #3: Ecology Fair – 60 minutes**

Students will travel around a fair environment to explore different ecological concepts and ideas in a hands-on self-directed setting.

**Field Trip Sample Schedule:**

<b>Morning Session</b>		
8:45am	Depart from School	15 min
9:00	Arrive at Location	
9:00 – 9:15	Welcome!	15min
9:15 – 9:45	Station #1	30 min
9:45 – 10:15	Station #2	30 min
10:15 – 11:15	Station #3	60 min
11:15 – 11:30	Closing Circle/Wrap-Up	15 min
11:30 – 11:45am	Arrive Back at School	15 min
<b>Afternoon Session</b>		
11:45am	Depart from School	15 min
12:00	Arrive at Location	
12:00-12:15	Welcome!	15min
12:15-12:45	Station #1	30 min
12:45-1:15	Station #2	30 min
1:15 – 2:15	Station #3	60 min
2:15 – 2:30	Closing Circle/Wrap-Up	15 min
2:30 – 2:45pm	Arrive Back at School	15 min