

2nd Grade –Echo Canyon Hike - Spring

Organisms, Habitats and Season Changing

Class Description

Students will investigate how organisms interact with the ecosystem and how they respond to changing seasons.

Location: Echo Canyon

Duration: 4½ hours – 3 miles round trip

Standards Addressed

Science 2.1 Organisms depend on their habitat's nonliving parts to satisfy their needs.

Science 2.2 Each plant or animal has different structures or behaviors that serve different functions

Science 3.1 Weather and the changing seasons impact the environment and organisms such as humans, plants, and other animals

Enduring Understandings/Essential Questions

What are the basic needs of plants and animals?

How are the basic needs of all living things similar and different?

Weather and the changing seasons impact the environment.

How do living things depend on their environment?

How does an organism respond when basic needs are not met?

How does the temperature change at different times during the day (morning, noon, and evening) and from day to day?

What changes do we make in our daily lives based on changes in the weather?

How do weather patterns change throughout the year?

Vocabulary Addressed

Change

Interdependence

Organism

Habitat

Seasons

Hibernate

Migrate

Theme, etc.

Theme:

All plants and animals have needs. Different organisms meet these needs with different body parts. As the seasons change, organisms make changes to meet their needs.

Major Concepts:

Hibernation (mostly sleeping like lizards, frogs, toads)

Migrate (move away – come back in spring: Turkey vultures and humming birds)

Stay Active (bighorn sheep and elk – eat different food, pinyon jay – prepares for winter)

Objectives:

-Students will be able to recognize several different animals that live at COLM

-Students will be able to list at least 2 things animals need to survive: (air, water, food, shelter)

-Students will be able to explain 2 ways different animals survive the changes of winter.

Sample Class Outline

Introduction:

Theme: Arrowhead Welcome Talk

Props: Arrowhead, Soil Crust,

Tips: Introduce hike/plan for the day.

Transition: Along the hike we will be talking about what animals need to survive and how they can survive here throughout the year. As we walk, think of a few things that you could not live without...

Stop 1

Theme: What animals need to survive

Props: Air, Water, Food, Shelter

Tips: (start with human side – introduce ideas from animal side)

- **Air** – everyone take a big deep breath! Almost all animals need to breathe just like we do. Fresh, clean air is important to everyone.
- **Water** – The girl on the poster is drinking from a drinking fountain. Where do animals get water from? Rain puddles, ponds, the river, some animals don't need to drink at all; they get enough water from their food. Could bring in plants here...how do trees drink water? Through their roots!
- **Food** – We are walking through the animals' grocery store right now! Plants and animals find everything they need in Nature! While we're hiking look for insects that lizards might eat. Keep your eyes open for green plants that bighorn sheep might eat.
- **Shelter** – Animals need shelter just like we need houses to stay warm and dry. Some animals build nests or dig holes, some animals find a hole or a perfect spot and just move in.

Transition: As we start hiking pretend you're a lizard – look for insects to eat and cozy places that you could find shelter.

Stop 2

Theme: Seasons Change - Hibernation

Props: Lizard/Frog Photo

Tips: Did you see some spots you could live if you were a lizard? Point one out to your neighbor. Did you see many insects you could eat? Would it be easier to find lots of insects to eat in the summer when it's warm or in winter when it's cold? What can lizards do when the seasons change, and food is hard to find? They **hibernate!** They store fat in their tails – and can sleep most of the winter! Now that it's warm out, lizards are waking up and they are really hungry. Keep your eyes peeled today for lizards and see how big or small they are! See if you can spot them feeding on insects or sunning themselves on big rocks. *Toads and Frogs are another example of animals that sleep away the cold months.* They dig down in to the mud and sleep all winter. We might get to see some toads and frogs at the pool at the end of our hike, but be on the lookout while you walk for toads in the big puddles along the trail.

Transition: Now, let's pretend we are insects or birds that feed on flowers – how many blooming flowers can we spot along the trail?

Stop 3

Theme: Birds can migrate far because they have wings.

Props: Hummingbird/Turkey Vulture photo

Tips: How many flowers did you spot? Lots, right? This is a great time of year for hummingbirds and insects, but they don't stay here all year. Do you think they would be able to find flowers during the winter, when there's snow on the ground? No! so, they fly south to Mexico and spend their winters in a warmer habitat, where flowers bloom all year. Each spring, they **Migrate (fly)** back to this area. So, when animals, like lizards and hummingbirds can't find enough food, some hibernate (sleep) and some Migrate (move away). Birds are good at migrating because they have wings and can fly away. Turkey vultures also fly away for the winter and they come back in spring. *(They eat dead animals and migrate in groups called kettles – like a flock of geese.)*

Transition: Animals are just like humans, after the cold winter, they can't wait to get out and run around in the sunshine. It has been pretty warm this spring, but during the summer it is very hot and dry during the day and animals have to find cool places to rest. As we walk, see if you can feel a difference in the temperature in the shade and in the sun.

Stop 4

Theme: Bighorn sheep move to find cooler spots during summer.

Props: Bighorn Sheep photos

Tips: Did you find some place that felt warmer and some that felt cooler? Bighorn Sheep are good at keeping cool in the summer, they spend the hot days in shady spots under cliff walls and big trees and then when it's cooler in the evenings and early morning, they will walk around to find grass and other plants to eat. How many of you are sweaty right now? Sheep can't sweat like we do, so when it's hot they pant, like a dog, to cool off.

Transition: Sheep aren't the only ones who have to find cool places to rest during the summer. Toads have to find cool, moist places to rest so that their skin doesn't dry out. When we get to the pool, we'll do an experiment to learn about where toads rest.

Stop 5 (at pool/end of hike)

Theme: Toads bury themselves in mud

Props: toad/frog photos

Tips: Have students use ground thermometers to test difference between temperature above ground and 6" into the soil. Use moisture meters to test moisture differences. Have them predict difference and see if they are right. Use big thermometers to test sunny vs. shady temperature differences. Look at the pool and everything in it!

Other Tips:

Watch out for poison ivy at end of trail.

Could bring up toads and frogs at any muddy spot.

Take advantage of what you find.

2nd Grade - Organisms, Habitats & Seasons Props & Stops



Stop #1 What animals need to survive

Stop #2 Season Changes/Hibernation



Stop #3 Birds can Migrate Far



Stop #4 Bighorn Sheep Migrate close

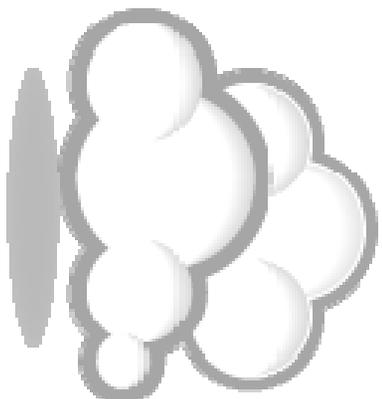


Stop #5 Toads in Summer



2nd Grade Organisms, Habitats & Seasons

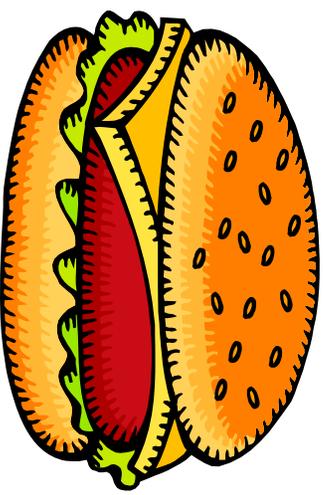
Air



Water



Food



Shelter



Air



Water



Food



Shelter







Bighorn Sheep



Hummingbird



Turkey Vulture



Canyon Tree Frog



Collared Lizard

Red-spotted Toad



Spadefoot Toad

