

ENVIRONMENTAL ENCOUNTERS

Lesson Plans for the Science of Water



Elements of the Environment

Suggested grade level:

Third grade

Objective:

Students will be able to list some of the elements of their environment, create and answer questions about their environment, and describe how people in Utah are affected by the environment and can have an affect the environment.

Curriculum ties:

- √ Third grade Science Standard 2 Objective 1 a-c, Objective 2 a-e, Standard 5 Objective 1 a-b
- √ Social Studies (Time) Standard 1 Objective 1 a-c.

Time needed:

- √ Prep: 1 hour
- √ Pre trip: 1-2 hours
- √ Garden: 1-2 hours
- √ Post trip: 2-3 hours

Materials needed:

- √ A microenvironment for the students to observe, like an aquarium, terrarium, or flowerbed.
- √ Elements of the Environment chart (attached)
- √ News articles about natural resources, including water, forests, air, soil, wild animals, etc. Good sources for these may include local and national newspapers, local newsletters, age-appropriate news magazines, and nature-focused magazines such as National Geographic kids' edition.
- √ Images of natural resources for the children to cut out and make a into collage

Teacher notes:

In this activity students will learn about the elements of the environment through observation. Students should know that the environment around us is made up of living and nonliving things and be able to name examples of each from the environment around them, like soil, water, air, plants, and animals. They should also understand that if elements in the environment change, like the amount of light or water, it can affect the things that live in that environment. They should know that a climate is the weather in a location, including the temperature, rainfall, and wind, and that a change in the climate can affect the people, animals, and plants living in a location.

Procedures:

Preparation

Find a small environment for students to observe. If your classroom has an aquarium or terrarium this is ideal. A flowerbed in the schoolyard or even a large flowerpot in the classroom will also work.

Call 801-565-4314 to schedule your visit to the Conservation Garden Park at Jordan Valley.



In the classroom

Have the students find examples of living and non-living things in their microenvironment. Ask them if the temperature became hotter or colder how it would affect the things living in their environment. As a class, come up with questions about the environment that the students can attempt to answer at the Garden, such as how much water lawns need to grow, which plants can grow in the shade, or the difference in temperature from shady areas to sunny areas and areas near asphalt, concrete, or plants. Have the students write down the questions to take with them when they go to the Garden.

Field trip

The students will explore the Garden and list living and non-living things they notice in the garden environment. Have them look for the answers to their questions about the elements in the environment. They can ask the Garden guide for help in knowing where to look for answers. The guide will also tell the students about the climate in Utah and some of the native and non-native plants that grow here. Ask the students to decide, based on what they saw at the “High Mountain Desert Landscape,” which plants probably survive the best in Utah’s climate, and how people affect which plants grow in Utah by watering, using fertilizer, and otherwise altering the environment.

Follow up

Post trip activity: Ask the students to predict how people may influence the environment in the future, and how the environment may change. Have the students look at news accounts of changes in the environment, such as desertification, water shortages, or floods. Have the students predict how the local environment would change if living or nonliving elements in it change, and how those changes can affect them. Talk about positive things people can do to affect the environment for good, like conserving natural resources. Have the students make a collage of the natural resource(s) they think are most important and ways to conserve them.

Assessment:

The students’ lists, their written answers to their garden questions, and their collages will demonstrate whether or not they can identify and discuss the elements of their environment.