

TRB 4:5 - Investigation 2 - Elevation, Plants & Animals

Summary

This activity will help students understand that elevation is one of the things that affect where and how plants and animals live.

Group Size

Individual

Materials

Bulletin board paper

Markers

Copies of [plant / animal cards](#) (pdf)

Background for Teachers

Different regions of Utah have their specific patterns of interconnected life. These are groups of living things that are specially designed for their specific environments. One of the physical characteristics of these environments is elevation. Elevation affects climate and temperature which determines where plants and animals live. Other things, such as natural disasters or events will affect animal and plant distribution, but most live within certain elevations.

Intended Learning Outcomes

1. Use science process and thinking skills
4. Communicate effectively using science language and reasoning

Instructional Procedures

Pre-Assessment/Invitation to Learn

Begin by dressing a student (or yourself) in a large coat, gloves, hat, etc. and act like you're cold. Ask students what clues they can infer from your "physical adaptations" (the clothing) and your behavior. (Try to have someone state that you must be someplace "cold".) Usually, when we go to higher elevations the climate and temperature is colder. Define "elevation" for students. (A higher place or position.) Now put something on that would let students know you are in a warmer climate, such as sunglasses, hat, flip-flops, and pretend to use suntan lotion. Ask them where your elevation might be. (Lower because of warmer climate and temperature.) As students respond and discuss this, tell them they are going to do the same with clue cards about plants and animals. Elevation has a definite effect on plants and animals in different environments. Review where elevations and environments are located in Utah.

Instructional Procedure

Prepare a line drawing of a mountain and valley graphic on a large piece of paper hanging on the wall.

Define the meaning of elevation (a higher place or position).

Discuss Utah's different elevations, and their relationship to environments, depending where you are in the state.

Mark elevations on the paper mountain created on the wall. Label an example of a place in each elevation next to the numbers. Discuss what kind of clothing would be needed at different elevations for humans. Help students make the connections that plants and animals also have adaptations, just like humans to help them survive in these elevations.

Explain that elevation is one of the things that affect where plants and animals live. When plants

and animals live at higher elevations, they might need to be able to survive in the cold. At lower elevations that contain deserts, the plants and animals will change because only those that are able to survive will live there. Other reasons that affect where plants and animals live are climate and temperature. These are directly tied into elevation. All three together give us clues to where things live.

Pass out animal/plant cards with information that will help students determine, or match them up to different elevations. Each student will share his information with the class and then decide where that animal might live. They will then put their card up on the wall in the correct location. If a plant or animal can go in more than one location, you can either decide on the most common location, or make more than one card to place on the mountain.

The following list of plants and animals from the science vocabulary can be used in this activity.

Plants	Animals	
cottonwood	jackrabbit	cottontail
cattails	red fox	tortoise
bulrushes	coyote	red-tailed hawk
prickly pear	mule deer	muskrat
sagebrush	elk	deer mice
Utah juniper	moose	pinyon jay
pinyon pine	cougar	
quaking aspen	bobcat	beaver

Help students understand that many animals can adapt to live in a variety of different elevations depending on conditions. (Ex. If there is a drought, deer, elk, and moose will move to a location where food is available.)

Extensions

Fine Arts/Visual Arts-

Have the students draw pictures of the plants and animals. Put them on the elevation paper. *(Standard III, Objective 1)*

Language Arts-

Have the students write reports about the plants and animals. *(Standard VIII, Objective 6)*

Have the students write in paragraph form the information they learned at home (Investigation 1 homework) with their families and the information they learned in class. *(Standard VIII, Objective 6)*

Math -

Find the differences between the elevations discussed. *(Standard I, Objective 5)*

Science-

Find the differences in the animals and plants that live in the different elevations. *(ILOs 1,4)*

Homework & Family Connections

Send home the description animal cards. Have the family read about each one. Look at the pictures on the USOE website.

Play a game by having someone read the card and having the family guess which animal is being read about.

Assessment Plan

Review with the students the animals of Utah and which environment they live in.

Authors

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