

Food is Our Fuel

Third Grade

Activity: 1

Time: 1 Class Period

General Description

Students need to understand that ecosystems have many factors that affect its health. The factor that this lesson focuses on is energy. Students will discuss what would happen if energy were removed from an ecosystem.

Objectives

Students will identify food as an integral part of any ecosystem.

Students will describe how the lack of energy (sunlight/food) would impact an ecosystem.

Arizona State Standards

SC03 S1C1 PO1 Formulate relevant questions about the properties of objects, organisms, and events of the environment using observations and prior knowledge

SC03 S2C2 PO1 Describe how, in a system (e.g., terrarium, house) with many components, the components usually influence one another

SC03 S2C2 PO2 Explain why a system may not work if a component is defective or missing

SC03 S4C3 PO5 Describe how environmental factors (e.g., soil composition, range of temperature, quantity and quality of light or water) in the ecosystem may affect a member organism's ability to grow, reproduces, and thrives

W03 S3C2 PO1 Record information (e.g., observations, notes, lists, charts, map labels and legends) related to the topic

W03 S3C2 PO3 Write in a variety of expository forms (e.g., summary, newspaper article, reflective paper, log, journal)

Teacher Background

Students will need to understand that the first source of energy in an ecosystem is found in the form of sunlight in an ecosystem. Having students identify the many different ways energy from the sun is found in an ecosystem can help students determine what would happen to an ecosystem if that energy source were removed.

Materials (per student)

Poster paper

Cheerios

Pictures of food

Magazines

Scissors

Glue

Crayons/markers

Procedure/Exploration

1. Show the students pictures or examples of food. Ask them to describe each kind.
2. Ask the students the following questions: What do you like to eat? Why do you eat it? What are some the different types of food you eat? (Vegetables, meat, grains, bread, milk, cheese, etc.)
3. Have the class discuss how their bodies change food into energy. Have the students relate the use of energy by their bodies to animals in general.
4. Help students experience how their bodies use food by having them do the following steps.
 - a. Have students find their heartbeat and ask: What happens when you exercise?
 - b. Have them do a few jumping jacks and ask where they think the energy comes from. (Food)
 - c. What happens when we have used most of the energy our bodies have stored? (Feel hungry)
5. Have the students draw a simple food web of eating all those things they listed and then themselves. What is bread made of? Then where do vegetables get their energy?
6. Ask the students where the vegetables get their energy. Direct them to the sun light
7. Now add those pieces to the food web.
8. Have the students select an ecosystem they have studied and create a new food web for that ecosystem
9. Ask students what would happen to their ecosystem if the sun were removed. Which organisms would die off first? Students can record their answers on their poster of a food web.