

The Great Salt Lake Food Web

Summary

To look at the energy flow of the Great Salt Lake food web, and the role of organisms and how they effect others in the Great Salt Lake ecosystem.

Time Frame

5 class periods of 45 minutes each

Group Size

Individual

Life Skills

Communication

Materials

- Giant ball of yarn - Heavy paper for information cards - Yarn or string for information cards-cards will be worn around the necks of the students - Coloring supplies - Glue - Portable microscopes-field trip - Containers for storing Great Salt Lake samples (lake water, brine shrimp, algae, etc.)-field trip - A list of organisms that are part of the Great Salt Lake ecosystem. (plants, animals, algae, bacteria,) - Cards labeled sun, soil and water

Background for Teachers

Students will research an organism and find out its role and lifestyle in the Great Salt Lake ecosystem. This activity will help demonstrate the flow of energy in the Great Salt Lake food web as well as the importance of each organism in the Great Salt Lake and how they are connected to each other. The students will discover what happens to the Great Salt Lake ecosystem when one or more organisms in the Great Salt Lake has died or become extinct because of pollution.

Intended Learning Outcomes

1. The students will research an organism important to the Great Salt Lake and become familiar with its role in the Great Salt Lake ecosystem. 2. The students will recognize the importance of the flow of energy in the food chain of the Great Salt Lake, and address how each organism in the food web is important and how they effect other organisms in the Great Salt Lake ecosystem. 3. The students will discover the effects that pollution can have on all organisms in the Great Salt Lake ecosystem.

Instructional Procedures

This is the introductory lesson to a unit on The Effect of Pollutants on the Great Salt Lake Ecosystem. Students will choose an organism in the Great Salt Lake ecosystem to research from the list provided. This activity will work best if each organism is chosen once. The class will take a field trip to the Great Salt Lake to provide hands-on opportunities for each student to research his/her organism. Portable microscopes may be valuable for the field trip. Containers to store lake samples may be taken also. Class time and computer lab time to research as a class will also be provided. . The field trip, class time and computer lab time may take 2-3 class periods. During the research time the students will also be finding a picture of his/her organism. The student will either draw the organism or find a picture of the organism. The students will be creating information cards about the organism chosen. A picture of the organism will be on the front of the card and the information about the

organism will be on the back of the card Finding out the students prior knowledge about food chains and the Great Salt Lake. To find out the students prior knowledge, as a class we develop a KWL chart. We will talk about what we know about the Great Salt Lake and food chains, and what we would like to know about the Great Salt Lake and food chains. Upon completion of the unit we will fill in the what we learned portion of the KWL chart. The students will also be keeping a lab book in which they can record this information, and any other questions, ideas, etc. they think of. The students will be finding out specific information about the organism he/she has chosen. Such as what the organism eats, what it is eaten by, a description of the organism, where it lives, and any other connections it has to the Great Salt Lake. Once the students have collected information and a picture of their organism, the students will be making an information card on the organism chosen to wear around their neck while playing the game. The students will be given a piece of heavy paper to make their card. On the back of the card, the students will be writing the facts about the organism. On the front of the card the students will glue or draw their picture of the organism. The students will then color the picture and attach the yarn to the card to make a necklace. This can be done with tape or by tying the yarn to the card through a hole punch. Instruct the students to sit in a large circle on the floor. The students should be wearing their necklaces. Place the cards labeled sun, soil, and water in the center of the circle. This represents the basic energy each organism needs to survive. Using a large ball of yarn, start by holding the end of the yarn and describing the organism you have and what it eats. Toss the ball of yarn to the student who has the card representing what you eat. You need to keep hold of the end of the yarn throughout the game. This student will now tell something about his/her organism and toss it to the student who has the card representing what was told about the organism. This game will only work as long as each student holds on to the yarn after they have thrown it. Keep telling facts about organisms and tossing the ball of yarn until every student is holding part of the yarn. Once a giant web has been created in the circle discuss what everybody notices about the web, such as the importance of each organism in the web. This represents the energy flow of the Great Salt Lake food web. Talk about what could happen if something happened to one of the organisms causing death or extinction to that organism. Give an example of pollution and have each organism that is affected by the example let go of the yarn they are holding. Discuss as a class what is noticed. The students should observe that the whole web begins to fall apart.

Assessment Plan

The teacher will assess based completion of the information cards and participation in the activity. Each student will write about what was learned from the activity in his/her lab notebook.

Authors

[KRISTIN MCCALL](#)