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VITAL INFORMATION

Grade: 4

Subject: Science, Understanding Life Systems

Topic: Habitats and Communities, Food Chains

Suggested Prerequisite Knowledge/Skills:
- Knowledge of the terms herbivore, omnivore and carnivore.
- Knowledge of how animals get energy to live.
- Knowledge of how plants get energy to live.

Time Allotment: 3 class period, 30 min or more per period.

Objective:
- Students will be able to create a food chain.
- Students will be able to identify changes to a food chain due to relationships between communities and changes in habitat.

Summary: Students will be exploring the Marineland of Canada website, using the information learned to create a food chain.

IMPLEMENTATION

Introduction: This will include the use of the student worksheet provided. Teacher should already have their cut outs ready for their food chain levels.

1) During a verbal discussion with your students, go over the terms diet, producer, consumer, predator, prey, herbivore, omnivore, carnivore and food chain. As the discussion takes place have the students fill in the definitions on their worksheets. These definitions will help them with their final assignment.

* Another way to do this is to have the students discover the definitions of these terms on their own. They could use a dictionary, text book, or the internet as a resource.

2) The teacher will have already their cut outs ready for their example food chain. An example could be a human, a cow, grass, and the sun. The teacher and students will discuss each of the examples and if and how they relate to the definitions from earlier.

3) As a class, construct a food chain using the cut outs. Ask: Which do you believe is at the bottom of the food chain and why? Then continue upward till you reach the top level. Make sure the students continue to tell you why each example is at that level. Use the correct terminology from the definitions.

Procedure: Here students will need access to the internet whether in groups or individually. Make sure that all students can access the Marineland of Canada website.

1) Students will access the internet, and go to www.marinelandcanada.com. Once they are at the site click on the area of the red banner that says, “Educational Manual.”

2) Using this website and the students’ worksheets, the class will explore and gain information about the animals in Marineland of Canada’s care. Make sure to focus the students on what the animals eat and if any of the terms previously discussed can define these animals. The students will write any important information in their worksheets.

3) Students will then choose 2 animals from the information just gathered and fill in 2 small food chains in the space given. To properly complete this section students may need to do extra research. An example of the food chain has already been done for them on the worksheet.

Closure: During this, the teacher will explain the assignment and give the students time to complete the assignment. Extra time may be required for students to complete the assignment.
* Teacher will show the food chain that they created from the introduction part of this lesson.

MATERIALS AND RESOURCES

Instructional Materials:
- Food Chain Student Worksheet (1 per student)
- Assignment Sheet with Assessment (1 Per student)
- String
- Cutting Tools
- Paper, Bristol board for creating shapes (5 per student)
- Writing tool

Resources:
- The 2007 revised Science and Technology, Ontario curriculum, grades 1-8.
- Sciencesaurus: A student handbook. (2006) By: Great Source education group, A Houghton Mifflin Company.

Technology:
- Access to computers with internet. Must be able to access the Marineland of Canada website (www.marinelandcanada.com).

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EXPECTATIONS

Expectations from the Ontario Science Curriculum

2. Developing Investigation and Communication Skills
- 2.2 Build food chains consisting of different plants and animals, including humans.
- 2.5 Use appropriate science and technology vocabulary, including habitat, population, community, adaptation, and food chain, in oral and written communication.

3. Understanding Basic Concepts
- 3.2 Demonstrate and understanding of food chains as systems in which energy from the sun is transferred to producers (plants) and then to (consumers) animals.
- 3.6 Identify animals that are carnivores, herbivores, or omnivores.