

OSP Interactive Educational Programming

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| OSP Interactive Educational Programming | |
| Lesson Title: What's in the water? | Grade Level: 4th |
| Teacher: Kathi Murray | Duration: 50 minutes |
| Essential Question(s)/Objective(s): What is a producer? How do producers use to make their food? What is a consumer? Do all consumers eat the same thing? What is a decomposer? What would happen if decomposers disappeared? | |
| Science Georgia Standards of Excellence S4L1. Obtain, evaluate, and communicate information about the roles of organisms and the flow of energy within an ecosystem. <ol style="list-style-type: none"> a. Develop a model to describe the roles of producers, consumers, and decomposers in a community. b. Develop simple models to illustrate the flow of energy through a food web/chain beginning with sunlight and including producers, consumers, and decomposers. c. Design a scenario to demonstrate the effect of a change on an ecosystem. | |
| Key Vocabulary | photosynthesis, producer, consumer, herbivore, carnivore, omnivore, decomposer, food chain, food web |
| Teacher Materials | Aquarium(s) or gold fish bowls with various organisms like tadpoles, crayfish, topminnows, snails, duck weed, algae, etc. Lab sheet Energy Pyramid Cut Out and Directions |
| Student Materials | Pencils/pen |
| Teaching Strategy/Procedures | Have the students observe the samples and list and explain which organisms they think are the producers, consumers, and decomposers. Then have them list where each group of organisms gets their energy and how what they eat/where they get their energy affects the ecosystem as a whole. Draw a food chain then a food web using the organisms observed. Have them explain what would happen to the ecosystem if it went through a long drought. |
| Differentiation | Use terrestrial organisms instead of aquatic organisms Use pictures instead of live animals |

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| Summarizing Strategy | Teacher explains how producers are the basis of every food chain/food web..i.e. sunlight is the ultimate energy source. Consumers eat producers, other consumers, or dead organisms. The consumers that eat dead organisms are called decomposers who are the ecosystems' clean-up crew. Food chains are simple feeding models and food webs are models that contain as many feeding relationships as possible. If faced with a long drought, the crayfish could dig a hole and survive for a relatively long time, the tadpoles and minnows would die if the water dried up. |
| Assignment(s) | Have the students draw 2 food chains or a food web using the information from the activity |
| Assessment For and/or Of Learning | Have students cut out and complete an energy pyramid |
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