



Plankton Power

Classroom Program for Grades 6-8



What do the largest whales in the ocean have in common with the smallest mussels in a river? All depend on plankton as a food source. Students explore a variety of interesting adaptations that help plankton survive as they participate in the Great Phytoplankton Race. Who can build the slowest sinking plankton? Join us for your chance to compete!

Lesson: Learn more about plankton and their role in the ocean.

Conservation Message: All life on Earth exists as part of an ecosystem.

Curriculum Objectives:

Tennessee students will apply the following **Science Curriculum Performance Indicators:**

- The student will identify how organisms obtain food for energy.
- The student will identify adaptations that enhance the survival of organisms in an environment.
- The student will classify organisms as producers, consumers, or decomposers in a food chain or food web.
- The student will classify plants and animals into groups according to their features.

Georgia students will apply the following **Science Performance Standards:**

- Students will use the ideas of system, model, change and scale in exploring scientific and technological matters.
- Students will examine the dependence of organisms on one another and their environments.
- Students will communicate scientific ideas and activities clearly.

Alabama students will apply the following **Science Course of Study Content Standards:**

- Describe biotic and abiotic factors in the environment.
- Describe layers of oceanic hydrosphere, including the pelagic zone, benthic zone, abyssal zone and intertidal zone.

All students will apply the following **National Science Education Content Standards:**

- Develop an understanding about scientific inquiry.
- Develop an understanding of structure and function in living systems.
- Develop an understanding of diversity and adaptations of organisms.

Visit the Tennessee Aquarium Education Department's website

<http://www.tnaqua.org/Education>



Plankton Power Activity Sheet

Fill in the blanks using the work bank to complete the sentences below.

1. _____ are water movements that result in the horizontal transport of water masses.
2. The transfer of food energy from the source in plants through a series of animals is called a _____.
3. A _____ is an interlocking pattern of food chains.
4. _____ describes the relationships of plants and animals with one another and with the various elements of their environment.
5. _____ are very tiny plants.
6. _____ is the mechanism by which plants, with the aid of chlorophyll, convert sunlight energy, water and carbon dioxide into carbohydrates, oxygen and water.
7. Very small organisms that are free-floating or drifting in the open water of the oceans are called _____. They can move only short distances without the aid of the motion of water.
8. _____ are very tiny animals, including larval fish and other marine organisms.
9. _____ is the surface to volume ration of an object.
10. If an animal is _____, it is capable of movement.

<p><u>WORD BANK</u></p> <p>CURRENTS</p> <p>PHYTOPLANKTON</p> <p>FOOD CHAIN</p> <p>MOTILE</p> <p>PHOTOSYNTHESES</p> <p>PLANKTON</p> <p>ZOOPLANKTON</p> <p>FOOD WEB</p> <p>INTERDEPENDENCE</p> <p>SURFACE AREA</p>

