



## **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><b>CURRENTS</b></p> <p><b>PHYTOPLANKTON</b></p> <p><b>FOOD CHAIN</b></p> <p><b>MOTILE</b></p> <p><b>PHOTOSYNTHESSES</b></p> <p><b>PLANKTON</b></p> <p><b>ZOOPLANKTON</b></p> <p><b>FOOD WEB</b></p> <p><b>INTERDEPENDENCE</b></p> <p><b>SURFACE AREA</b></p>
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