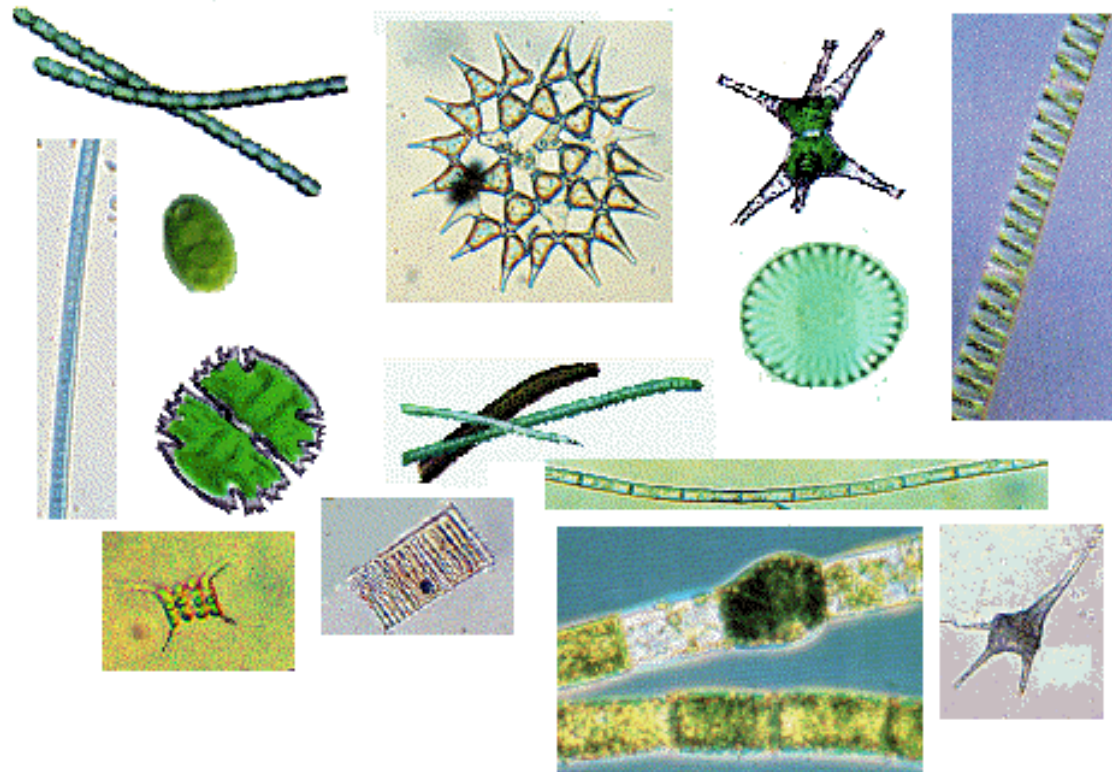
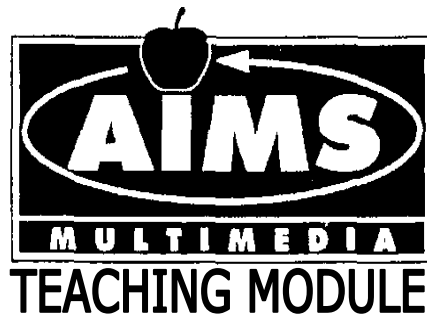


#10693 PLANKTON: OCEAN DRIFTERS

AIMS MULTIMEDIA, 2004
Grade Level: 4-10
11 Minutes

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Plankton: Ocean Drifters

Objectives

- To discover the nature and function of plankton
- To differentiate between phytoplankton and zooplankton
- To examine the seasonal cycles of plankton growth
- To locate the parts of the ocean in which most plankton grow
- To understand the nature of marine food webs



Plankton: Ocean Drifters

Synopsis

The characteristics of plankton, the basis of the entire ocean food web, are explained in this straightforward, factual presentation. Detailed live action footage of sea life introduces microscopic phytoplankton and zooplankton. Plankton refers to the various forms of plant and animal life that drift freely in the ocean; though most examples are minute, the giant floating jellyfish is also a type of plankton. Animated footage and maps show how various plankton grow and where they flourish. Influences on the plankton life cycle such as availability of sunlight and nutrients and the seasonal warming and cooling of the water are covered as well as their preference for a temperate, rather than a tropical climate. The video stresses the importance of these tiny organisms in providing food for marine life – from tiny coral polyps to the mighty whale.

Questions to ask before viewing

1. Take the class through a simple food chain by asking questions: What does a shark eat? (fish) What do those fish eat? Etc. The teacher may use different examples from both land and water.

2. Show the students a small, but useful object such as a safety pin. What is it used for? (Again, use the chain metaphor: it holds something together so that someone can use it for a specific purpose, which accomplishes a bigger objective.) Does the fact that it's small make it unimportant? Why or why not?
3. What are some other small but important things?

Questions to ask after viewing

1. What are the two kinds of plankton? (phytoplankton and zooplankton) What is the difference between them? (Phytoplankton are plants; zooplankton are animals.)
2. Are all plankton microscopic? (no) Name a kind of large plankton. (the jellyfish or Lion's Mane) Why is it considered plankton? (It drifts suspended in the water.) Is a jellyfish phytoplankton or zooplankton? (zooplankton)
3. What are some creatures that eat plankton? (coral polyps, sea stars, whales, scallops etc.) How is a shark dependent on plankton? (It eats big fish that eat small fish that eat plankton.)

Annotation

The characteristics of plankton, the basis of the entire ocean food web, are explained in this factual presentation. Live action footage of sea life introduces microscopic phytoplankton and zooplankton, while animated footage and maps show how plankton grow and where they flourish. Influences on the plankton life cycle such as availability of sunlight and nutrients and the seasonal warming and cooling of the water are covered.

4. What do zooplankton eat? (phytoplankton) What do phytoplankton "eat"? (light and nutrients)
5. Where do the nutrients come from? (decaying plants and animals) Why is it hard to get these nutrients? (They tend to sink to the bottom. When the sun warms the water they get trapped under the thermocline, the layer between the warm water and the cold water.)
6. In what part of the Atlantic Ocean are most phytoplankton found? (the north)
7. What is "spring bloom"? (It is the time in spring when the water is warm, but the thermocline has not yet formed. At this time plankton grow plentifully.)
8. Why don't phytoplankton grow well in the tropics? (The water is always warm and the thermocline never dissipates, leaving the nutrients that phytoplankton need trapped underneath.)
9. Why are the tiny phytoplankton so important? (They are the basis of all the food webs in the ocean.)
10. Activities: Plan a field trip to an aquarium or ask an expert from a local aquarium store to speak to the class about marine food webs. Plan a writing or drawing assignment that illustrates the interdependence of living things.

Length

12 Minutes

Subject Areas

Life Science

Audience Level

Grades 3-8

Catalog Number

2937-EN-VID

Related titles in the AIMS collection

#8846-EN-VID Beneath the South Pacific

#8569-EN-VID Beneath the North Atlantic

#8882-EN-VID Beneath the Caribbean

#TE270-EN-VID Ecosystems: Food Webs

#2935-EN-VID The Amazing Coral Reef

#8384-EN-VID Animal Life in a Tidepool



9710 DeSoto Avenue
Chatsworth, California
91311-4409 USA

Tel: 800-367-2467
Tel: 818-773-4300
Fax: 818-341-6700