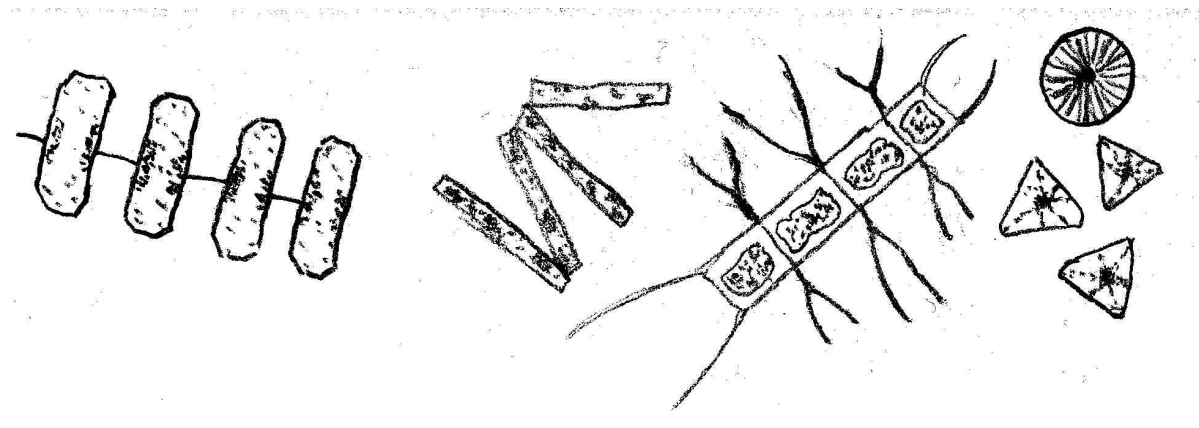


Trophic Level 1: PHYTOPLANKTON and SEAWEED

PHYTOPLANKTON are very small plants that float in water.

Without a microscope you can only see the color of the water they are in, but under a microscope you can see the cells. In the oceans and lakes there are many different phytoplankton. Two important groups of phytoplankton are diatoms and dinoflagellates.



Diatoms make thin shells out of glass and come in all sorts of shapes like circles, triangles, squares and stars. Many diatoms form chains. Dinoflagellates never make chains and are smaller than diatoms. They can move themselves through the water with one or two flagellae. Flagellae are hairlike tails that can beat the water and propel the cell forward.

SEAWEEEDS are leafy and plant-like and grow in shallow water along the coastlines where they can get enough sunlight to grow. If they were deep underwater, they wouldn't get much sun!

Seaweed comes in many different shapes and sizes. There are three groups of seaweed: green algae, red algae and brown algae. Both phytoplankton and seaweeds are ALGAE. Algae make over half of the oxygen produced on the planet!

What is the process called when plants or algae use sunlight and carbon dioxide to grow and make oxygen?

P-h- _ - _ - _ -s-y-n-t-h- _ - _ - _ - _ .

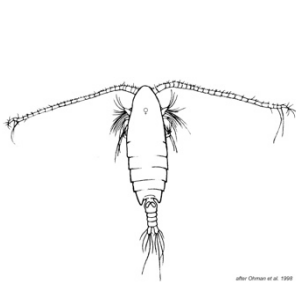
What do all plants need to grow? (If you need help, unscramble the letters)

1. _____ **i L h t g**
2. _____ **N t r i u e n s t**
3. _____ **t e W a r**

Algae and plants are called producers because they make their own food. From sunlight!

Trophic Level 2: ZOOPLANKTON (small animals)

Some zooplankton drift in the water, while others live hidden in the sand or mud. If you were to take a drop of seawater, place it under a stereomicroscope and look through it, you might see zooplankton that looks like this!



copepod



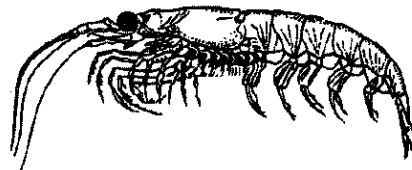
arrow worm



amphipod



crab larva



krill

Zooplankton are called consumers because they eat phytoplankton. Consumers eat other living things.

Trophic Level 3: FISH and INVERTEBRATES

In the video, there are several animals in tanks. Find out how they eat and what they eat. Make a table with your results.

ANIMAL NAME	WHAT IT EATS	HOW IT EATS

Try using these words to describe what the animals eat:

seaweeds, algae, small animals, dead things, plankton.

Use these words to describe how the animal eats: **grazer, filter feeder, predator, scavenger.** For some animals 2 answers are right. For example, sea stars are predators and scavengers.

There are two groups of whales: Baleen Whales and Toothed Whales. Learn about how they eat from the video, and name two things they eat.

1. Baleen whales can eat _____ and _____
by sieving the water with their baleen.

2. Toothed whales can eat _____ and _____
by biting with their strong jaws.

MARINE FOOD WEB WORD LIST

Phytoplankton are small floating algae

Zooplankton are small floating animals

Photosynthesis is the process by which plants and algae use sunlight to grow

Diatoms are a type of phytoplankton that make glass shells

Dinoflagellates are small phytoplankton that can move through the water with flagellae

Flagellum (singular)/**flagellae** (plural) is a hair that dinoflagellates use to propel themselves through the water

Light, nutrients, water are the three things plants need to grow

Larvae are the babies of invertebrate animals and some fish

Nauplii are the larvae of crustaceans like crabs and shrimps

Stereomicroscopes are a kind of microscope where both eyes are used to look through the microscope and view small things magnified

Scavengers are animals that eat dead organisms

Predators are animals that eat other animals

Filter feeders eat by straining small organisms like phytoplankton and zooplankton out of the water