

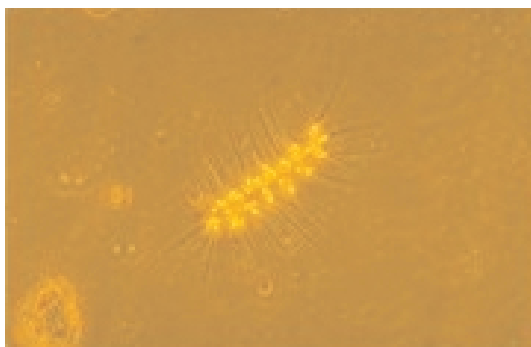
01. A diverse marine world; the food chain

Raphaëla Le Gouvello education packet - Windsurfing solo across the Indian Ocean

<http://www.respectocean.com>



Wildlife / biodiversity



Asterionella glacialis (Asterionella japonica)
Photo credit: Ifremer / E.Nezan

Did you know?

Life appeared in seawater more than 3.5 thousand million years ago.

Today, the world's oceans are home to hundreds of thousands of marine species, both plant and animal: *algae*, *crustaceans*, *jellyfish*, *worms*, *fish*, *cetaceans*...

Each species has its own peculiarities in terms of morphology (physical structure), behavior, movement, eating and reproductive habits, etc. But all of them are closely linked through complex relationships that often involve feeding upon one another.

Activities

▶ With some classmates, look up different marine species that inhabit the Indian Ocean.

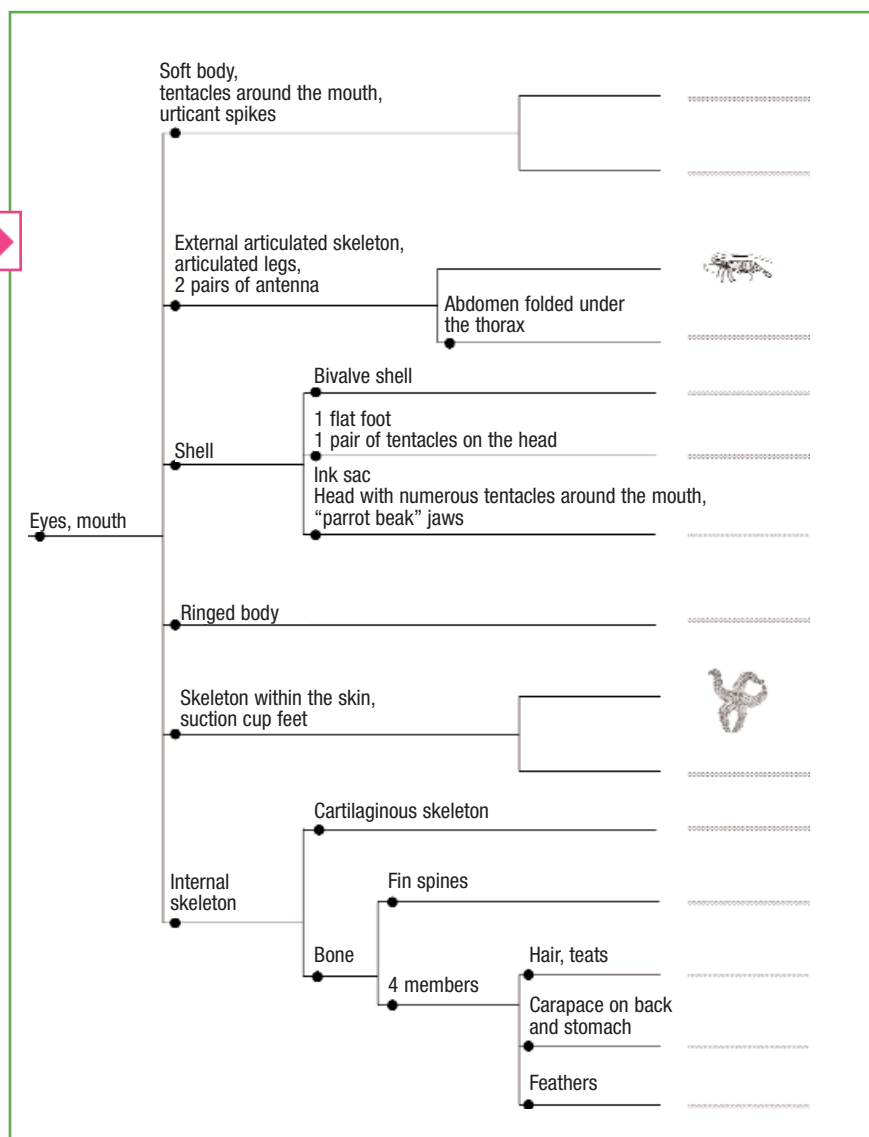
▶ Categorize the species you find, using the phylogenetic tree to the right.

A phylogenetic tree allows you to know "who is more closely related to whom."

Use the animals' anatomical characteristics to place the different species where they belong.

You might want to use a large piece of poster board for your tree.

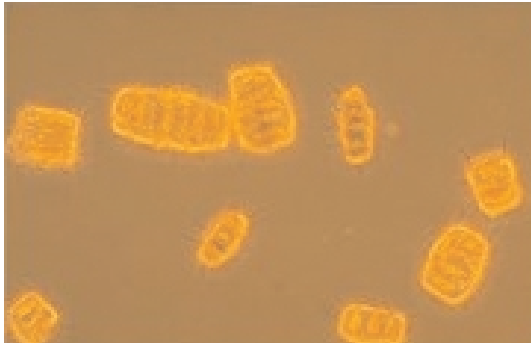
Don't forget the species Raphaëla will be seeing during her journey!



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Chaetoceros armatum.
Photo credit Ifremer / E.Nezan



Garfish egg (needlefish, Belone belone)
Photo credit Ifremer / Martin

Did you know?

Plankton consists of plants and animals that are carried by the marine currents. Microscopic algae are often known as plant plankton, or **phytoplankton**. Like all plants containing chlorophyll, they absorb carbon dioxide and mineral salts to make organic matter using the sun's energy. These microscopic algae give off the oxygen [?le mot est introuvable] animals need to survive.

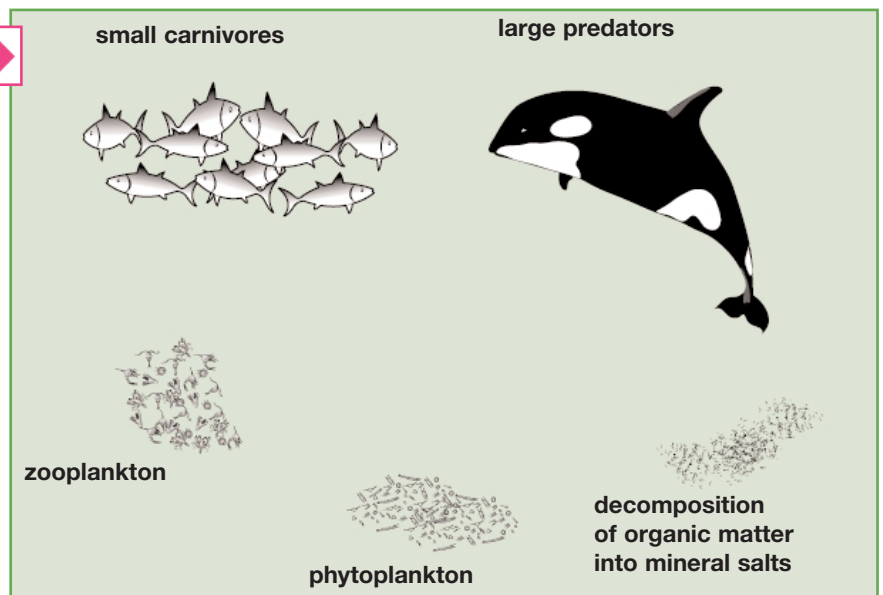
Animal plankton, also known as **zooplankton**, includes animals from very different zoological groups (radiolaria, jellyfish, crustacean larva, echinoderms, etc.).

All of these living creatures depend upon one another, forming a food chain. Microscopic algae are the first link in this chain. Each link is important. Its disappearance can endanger all the other links in the chain.

Activity

► Use the information you have just read to complete this simplified food chain diagram: relate the links to each other using arrows to indicate "is eaten by."

You can close the chain using an arrow indicating "decomposition of the remains of living creatures."



Activité

Choose a mammal that lives in the Indian Ocean. Try to build its food chain.