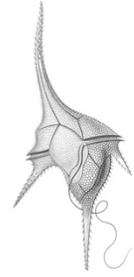


Tiny Yet Mighty – Plankton

Program Resources



Key Concepts

- Plankton have important responsibilities and roles in their environment.
- Plankton supports the bottom of the food chain and therefore the ocean food web.
- Living things are diverse, can be grouped and interact in their ecosystems.
- Some animals are plankton their whole life, while some are plankton for only part of their lifecycle.
- Human actions have a lasting impact on animals and their ecosystems.

Key Vocabulary

Adaptation = a change or the process of change by which an organism or species becomes better suited to its environment

Bacterioplankton = bacteria that is part of the plankton, drifting in the water column.

Larva = an early stage of life and growth for some marine animals, which commonly looks different from the adult form. Some marine animals are only part of the plankton during this larval stage.

Plankton = drifters. Animals, algae, bacteria etc. at the mercy of the currents.

Plankton Bloom = a large increase in plankton in an area where reproduction happens rapidly. Can be dense enough to see from space.

Phytoplankton = microscopic marine algae, drifting in the water column. Require sunlight to live and grow.

Sustainable = to be maintained or upheld. Environmental sustainability means taking what we need to support ourselves, while still preserving enough resources (includes organisms, abiotic features and habitat) for others and future generations to use.

Zooplankton = the animal part of plankton, ranging from microscopic to larger animals such as jellyfish. Drift within the water column and consume other life for food.

Discussion Questions

- What does our environment look like? Identify the abiotic and biotic factors within your own ecosystem.
- What challenges to animals face in your ecosystem? How have these animals adapted to living in their environment?
- Discuss the relationship between plankton and the different levels of the ocean food chain.

- How can your everyday actions affect the ocean?
- How does plankton impact you? Discuss the different ways plankton impacts your life.

Activities

Discuss challenges and adaptations of plankton. Have participants choose a favourite plankton and create a Phylo(mon) card showing its survival needs and special adaptation powers. Have the class explore and collect everyone's Phylo(mon) cards! https://phylogame.org/?s=plankton&post_type=card. Or discuss relationships between existing Phylo(mon) within their ecosystem.

<https://www.aquablog.ca/2019/06/i-choose-you-phytoplankton/>

Write a blogpost or poster to share a way plankton is connected to and helps you.

Videos

What are zooplankton, and why do they matter? | UW (University of Washington):

<https://www.youtube.com/watch?v=abZ7PWO97DA>

Why are Plankton the Most Vital Organisms on Earth? | BBC Earth:

<https://www.youtube.com/watch?v=UjnYJKysfo&t=49s>

Five Reasons to Thank Plankton | nature video: <https://www.youtube.com/watch?v=23mrtGcKAH8>

Weird Ocean Predators Feed On Plankton | Blue Planet | BBC Earth:

<https://www.youtube.com/watch?v=bAdcJW9Lsnk>

Mussels and Microplastics | Ocean Up Close | Ocean Wise:

https://www.youtube.com/watch?v=3QanIXeU_k0&t=48s

Slime Houses of Pinky-Size Plankton Cycle Carbon | Scientific American:

<https://www.youtube.com/watch?v=7jHb00QoKfE>

Extra Resource Links

Great Canadian Shoreline Cleanup: <http://shorelinecleanup.ca/>

Ocean Wise Education (activities and resource): <https://education.ocean.org/>

Ocean Wise Plastic Ed Kit: <https://plasticedkit.ocean.org/>

Ocean Wise Seafood Ed Kit: <https://seafoodedkit.ocean.org/>

Plankton | National Geographic: <https://www.nationalgeographic.org/encyclopedia/plankton/>