

## ANSWER KEY



### Science Bite Drifters of the Sea

The word “plankton” comes from the Greek word “planktos” which means to drift or wander – which is exactly what plankton do! Plankton are usually so small that you can only see them with a microscope or magnifying glass – but despite their small size, they play a huge role in the marine ecosystem. Plankton come in all shapes and sizes and can be divided into two main groups: **phytoplankton** and **zooplankton**.

**Phytoplankton** = plant plankton – use photosynthesis to convert sunlight and carbon dioxide (CO<sub>2</sub>) into food and oxygen (O<sub>2</sub>).

- Phytoplankton are particularly important to supporting life in Earth’s ocean - they are the primary producers in both freshwater and marine food webs. They make food through the process of photosynthesis and then become food for everything from zooplankton to herring to whales. Phytoplankton are also responsible for producing most of the oxygen in Earth’s atmosphere.

**Zooplankton** = animal plankton – feed on phytoplankton and other zooplankton.

- Some zooplankton, such as copepods, will remain plankton their entire lives – **holoplankton** (holo = whole). Other zooplankton, such as barnacle larva, are plankton for only part of their lives – **meroplankton** (mero = part). Zooplankton are usually microscopic, but large jellyfish are considered to be zooplankton as well.

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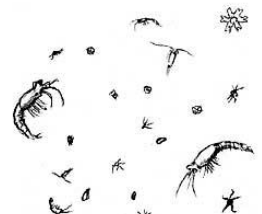
Use the information above to fill in the blanks and answer the following questions:

1. Where does the word “plankton” come from?
2. The two main types of plankton are Phytoplankton and Zooplankton.
3. Some plankton spend their entire lives in planktonic form, these are known as holoplankton, while other plankton known as meroplankton spend only part of their lives in planktonic form.
4. Why are phytoplankton so important in marine ecosystems?

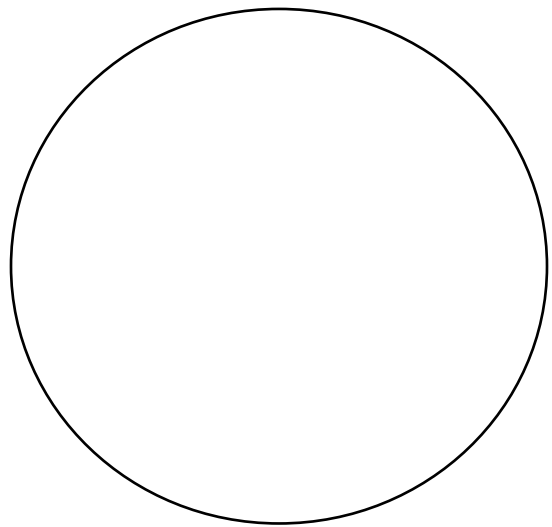
**Phytoplankton are the primary producers in both freshwater and marine food webs and they provide. They serve as food for everything from zooplankton to herring to whales. Phytoplankton are also responsible for producing most of the oxygen in Earth’s atmosphere.**

5. What do zooplankton feed on?

**Phytoplankton and other zooplankton**

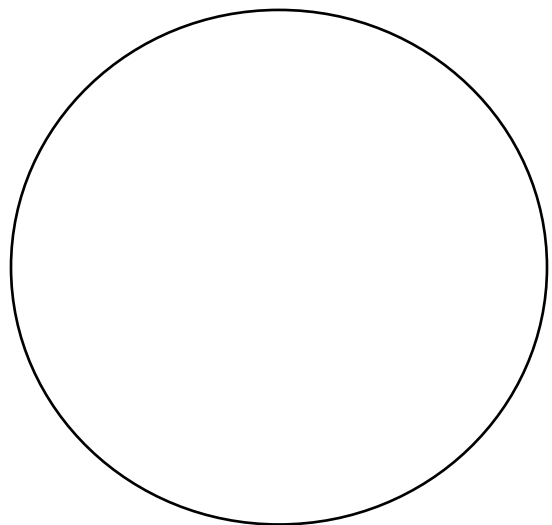


Use the Plankton ID Guide to identify the plankton in the photos below. Draw a scientific illustration of the plankton in the circle next to each photo.



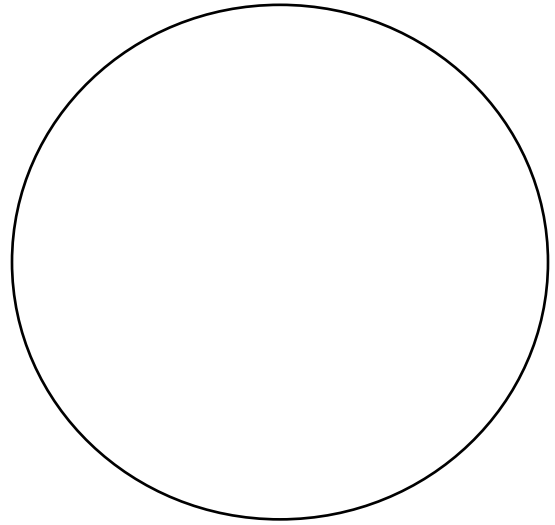
Name:     **Cirripedia (barnacle larva)**    

Phytoplankton or **Zooplankton?**



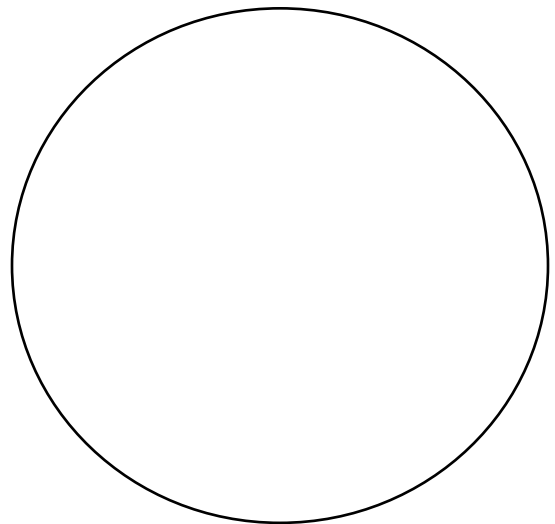
Name:     **Copepods**    

Phytoplankton or **Zooplankton?**



Name: Chaetorceros

Phytoplankton or Zooplankton?



Name: Polychaete worm larva

Phytoplankton or Zooplankton?