

# Microscopic Life Lesson Plan

**Grade:** 4th-6th

**Discipline:** Science

**Length:** 45 minutes

## Essential Question(s):

1. What lives in the water that we aren't able to see?
2. Why are these microscopic things important?

**Objectives:** Give students an understanding that there are living things in the water that can't be seen with the naked eye and that these organisms are an important part of the food chain.

**Assessment:** You can assess students' understanding by collecting the plankton worksheet and looking at their models.

## Materials/Resources:

- [Microscopic Life Slideshow](#)
- Four Common Freshwater Plankton Sheet
- Plankton Worksheet

## Vocabulary:

- Microscope
- Plankton
- Zooplankton
- Phytoplankton

**Lesson Summary:** Students will learn about the microscopic organisms that live in the water, then create their own model of one of the common freshwater plankton that live in Lake Champlain and fill out a worksheet.

## Outline of Lesson:

### *Introductory discussion (5 minutes)*

- Do a think-pair-share, asking students to come up with some of the smallest animals in the world. Each student should take a moment to think on their own, then make a list with a partner, then share these out with the class.

### *Main Lesson*

- Start by going through the [Microscopic Life](#) slideshow with your class. This will give them an introduction to plankton and microscopes.
- Afterwards, show them [this document](#) that has four different types of plankton pictured on it and specifies if each one is a zooplankton or phytoplankton.
- Students will choose one of the plankton to recreate by drawing, creating a digital 3D model in SculptGL or Tinkercad, or creating a 3D sculpture with clay. You can either give them all of these options or limit them to best fit the needs of your students.

- Once students have finished making their planktons, they'll answer the questions on the worksheet. You can choose to have kids do a gallery walk of all of the different plankton or present their plankton at the end.

# Four Common Freshwater Plankton Sheet

**Copepod (Zooplankton)**



[Photo Credit](#)

**Daphnia “Water Flea” (Zooplankton)**



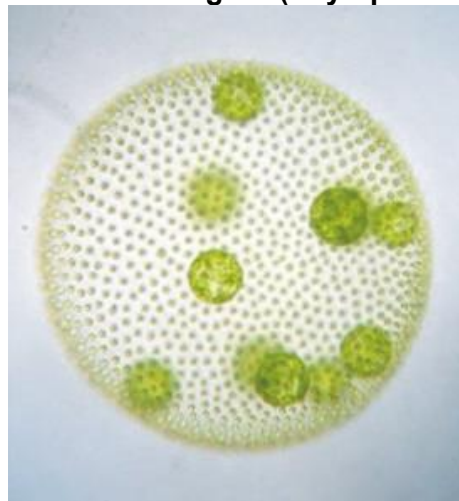
[Photo Credit](#)

**Ostracod (Zooplankton)**



[Photo Credit](#)

**Volvox “Green Algae” (Phytoplankton)**

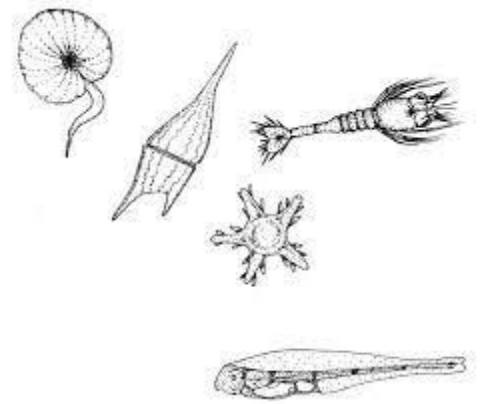


[Photo Credit](#)

Name:

Date:

## Plankton Worksheet



1. Which plankton did you re-create?
2. What features can you look at to tell which kind of plankton it is?
3. If you looked at a cup of water with plankton in it **without** a microscope, what would it look like? Describe it or draw a picture below.
4. If you looked at a cup of water with plankton in it **with** a microscope, what would it look like? Describe it or draw a picture below.