

Pond Water Creatures

Cell Biology - observe algae cells, protists, and more

Look at droplets of pond water with Petri & Meeka Microscope

Use the identification guide to identify your discoveries

 **Too Small for Meeka**
Bacteria

Single celled dots or strands. Meeka sees bacteria as the tiniest specs.

 **Spirogyra Algae**
 **Diatom**  **Volvox**
Algae

Single celled or multicellular. Green photo synthesizers. Spirogyra stacks in single celled strands. Diatoms have tiny hairs for mobility and hard cell walls made of silica.

 **Paramecium**  **Euglena**
Very Small for Meeka
Protozoa

Single celled eukaryotic organisms. Protists are very diverse and are grouped into their own Kingdom.

 **Rotifer**
Rotifers

Specialized, multicellular, up to 5 eyes, large round mouth covered in flagella for swimming and catching food, one foot, has social behaviors

 **Gastrotrichs**
Gastrotrichs

Microscopic, hairy, worm-like animal. The majority live on and between particles of sediment or on other submerged surfaces on the bottom of lakes and oceans

 **Nematode**  **Bristle Worm**
Worms

Thin, long, wriggly, microscopic worms. Bristle worms have segmented bodies, Nematodes do not. Amphileptus looks like a slug.

 **Amphileptus**  **Copepod**
Arthropods

Jointed legs, antanae, crustations, lay eggs (*Kopi, Nainoa, Tuni*)

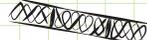
 **Ostracod**  **Amoeba**
Amoebas

Blobs with no cell wall, when they move they look like they are spilling liquid

 **Mosquito Larvae**
Insect Larvae

Wide variety of forms, jointed, wriggly, legs, joints, worms

What Micropets did you find?
Identify your critters and draw and describe your discoveries.

 **Spirogyra Algae**

Looks like hair moss. The hair filaments are tiny. Attaches to rocks. Very common. Can collect it in the upper lake at Riverwalk park near the waterfall entering the lake by Brighthouse Amphitheater. If you go collect a clump, it will be full of ostracods, and copepods, and protozoa.

 **Diatom**

Very small to view with Meeka. Diatoms move around like animals but are primary producers that make food from sunlight. It makes oil which it stores within it's hard cell wall which is made of silica (Like glass).

 **Protists**

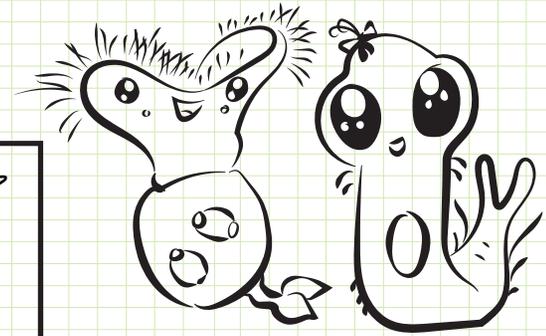
Very small to view with Meeka. You may think they are swimming specs, but if you look very carefully you may be able to see their organelles. Protists are in a class of their own and are very diverse. They are not plants or animals but have characteristics of both.

 **Rotifers**

Free swimming. Look like torpedoes swimming through the water. They actually swim with the hairs (cilia) surrounding their mouth. They are made of around 1000 cells. They have nerves but no brain. All body function and reactions occur in the nerves.

 **Worms & Arthropods**

These are large for microscopic creatures and are easy to find and incredibly interesting to watch! These are some of the smallest multicellular organisms in the world.



STEMTaught

Name:

Teacher's Edition

Thinking and discussion:

You will love looking at drops of water from different places! Discovering tiny microscopic creatures for the first time for yourself can be as exciting as any first discovery. The first microscopic organisms were discovered in 1670 and we have only just begun to understand their importance to our lives and the environments that we live in. Did you see any unicellular organisms or strands of algae cells? Look carefully for the smallest creatures in your water droplets.