FANTASTIC VOYAGE IN A POND
PART 2: THE EXPLORATION



Just what is lurking in that water sample
you brought home?



WHAT YOU NEED:

Your microscope, your water sample, a pipette, petri dish (lid or base), and a colored plate. Keep a rag or paper towel handy.



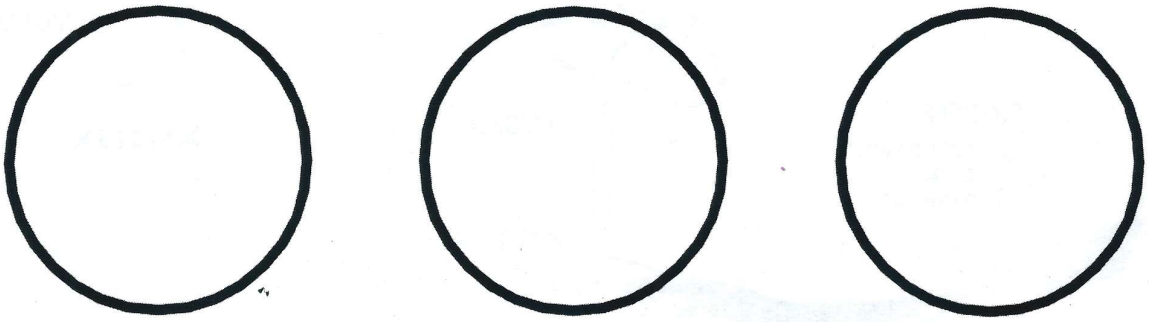
WHAT TO DO:

Set the open petri dish (or its lid) on the colored plate. With your pipette, partly cover the bottom of the petri dish with water and some of the gunk in your sample.

With just your eyes, look for little specks swimming around. When you see them, set your microscope right in the water and focus on them.

In the circles, draw pictures of some of your discoveries.
How many types of organisms did you find?

_____

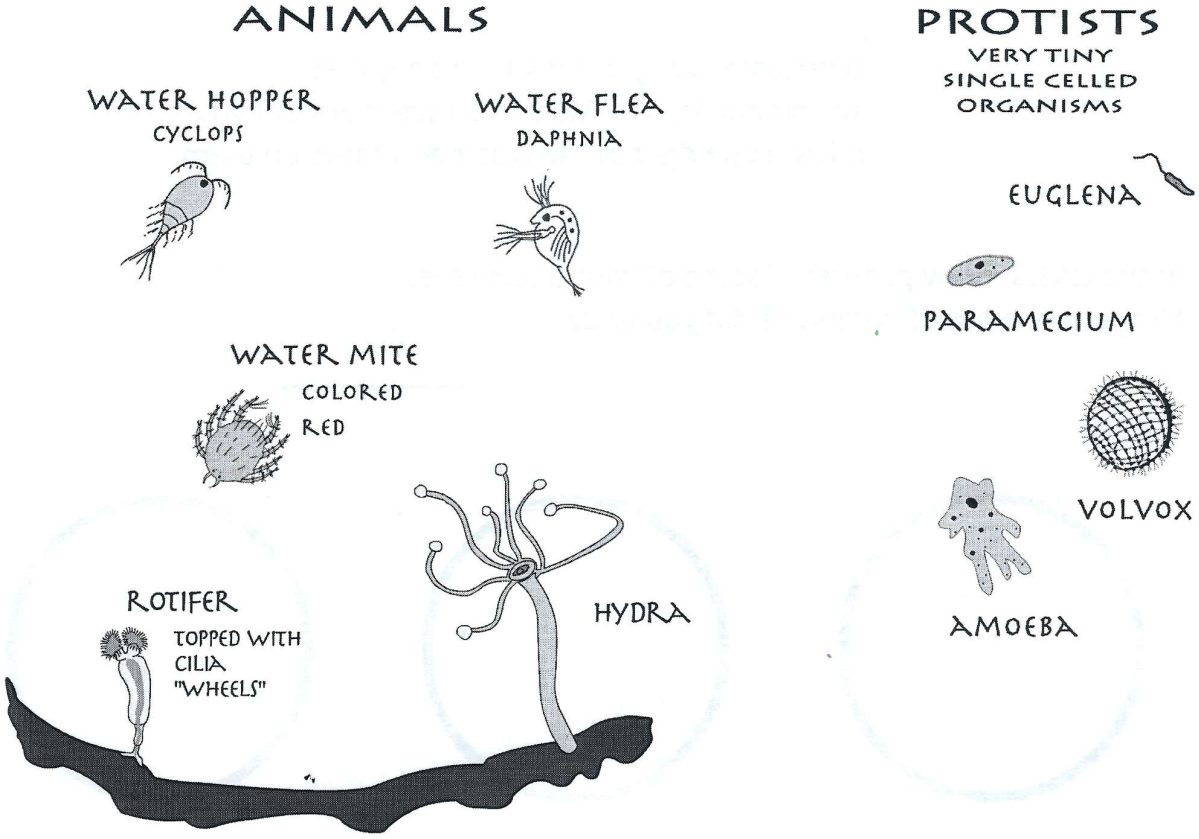


In a short paragraph, describe what you see. (Are there different shapes? Colors? Movements? There are so many kinds of microbes, we don't know what you'll discover. Maybe something new to science!)

When you're done, clean your microscope and dishes, and wash your hands.
Keep the rest of the pond water for the next lesson.

A FEW POND WATER ORGANISMS

These are shown in more detail than we see with the pocket microscope.
Do you think you saw any of these?



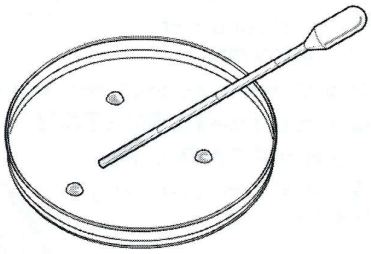
FANTASTIC VOYAGE IN A POND
PART 3: EVEN SMALLER

Protists are like tiny animals or plants, except that they are made of only ONE CELL. Some are like animals - they can swim around. Some are like plants - they can change sunlight into food. Some can do BOTH at the SAME TIME!

Because they are soooooo small, they will look like little dots under your pocket microscope. You may be able to notice them by their movement.

WHAT YOU NEED:

your pond water, pipette, pocket microscope, colored plate and a petri dish (base or lid).



HOW TO OBSERVE PROTISTS

- Set the open petri dish (or its lid) on the colored plate.
- Use your pipette to take samples of the pond water from near floating bits, or near gunk on the bottom of the jar.
- Drip a few drops on the petri dish and look at each one through the microscope.
- Experiment with tipping the microscope to study the surface of the drops as well as the bottom.
- Be patient. You might have to try sampling a few times from different parts of your jar.

WHAT DO YOU SEE?

Circle any that you saw.

SHAPE:



CIRCLE OBLONG DOT IRREGULAR

OTHER? (describe):

MOTION:



WIGGLING CORKSCREW DARTING OOZING

OTHER? (describe):

When you are done, dump the protozoa down the toilet and wash the jar, plate and petri dish. Throw away the pipette. Wash your hands.

Creatures from the Protist Kingdom

They have only one cell which makes up their entire body. Most are so small that you will barely be able to see them with your pocket microscope. Below are some drawings of what a few of them look like.

SEARCHING FOR CREATURES FROM THE PROTIST KINGDOM

Can you find all of the **BOLD PRINT** words from this page in the word search below?
(check up, down, frontwards, backwards and every diagonal direction)

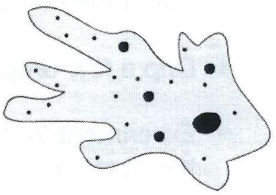
DIATOMS appear as **TINY** specks flitting about under the microscope.



Though extremely small, they make up most of the **PLANKTON** in ocean or **POND** water. (Some whales eat nothing but plankton!)

PROTOZOA are like little primitive animals. They swim around, hunting and searching for food. Here are examples:

AMOEBA: a "blob" creature that can change its shape. It forms long arms called pseudopods. A **PSEUDOPOD** grabs and swallows food.

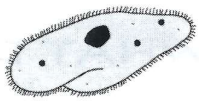


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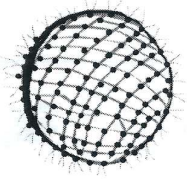
ALGAE turn sunlight into food like plants do, but many can move like animals.



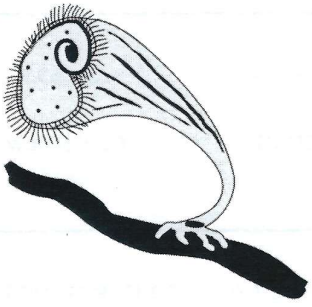
EUGLENA is a kind of algae that swims by wiggling its tail which is called a **FLAGELLUM**.



PARAMECIUM is one of the most common pond **MICROBES**. Its body is covered with **CILIA** that sweep it quickly through the **WATER** like oars.



VOLVOX is not really one creature, but a **COLONY**, a hollow swimming ball formed by hundreds of two-tailed algae.



STENTOR is a horn-shaped **CELL**, capped with cilia. It does not swim like the paramecium; it attaches to something and uses its cilia to sweep food to itself.