

ONLINE LAB

Amoeba Observation Lab

Note: this lab is completed online. Visit the following address and click on "Lab 1"

<http://labs.7bscience.com/protist-labs.html>

Purpose:

- To observe amoeba and how they move
- To identify the parts of an amoeba

Part One - Background

Today we will be observing an organism classified as a protist. A protist is any _____ that cannot be classified as a plant, animal, or fungus. There are several types of protists.

We will be learning about three types of protists: _____, _____, and _____. In this lab you will be observing a type of protist called a protozoan. A protozoan is a protist that is similar to an _____. All protozoans are _____ and hunt or search for their food.

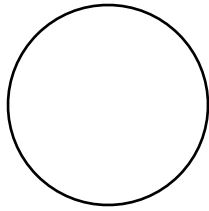
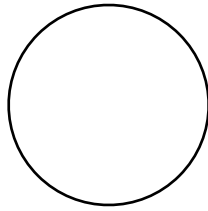
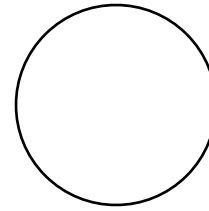
One way protozoans are classified into groups is by how they _____. In general, there are three ways protozoans move: by _____, by _____, or by _____.

The protozoa you will observe today is called the amoeba. An amoeba is unicellular and moves by using _____. A pseudopod is a temporary _____ that forms in the _____ as a result of the movement of the cytoplasm. The word pseudo means "false foot." The pseudopod has two functions, or uses: 1. _____, 2. _____. The picture on the web site shows an example of a pseudopod in an amoeba. (Note: in the picture the cytoplasm is called the "plasma" and the cell membrane is called the "plasma membrane.")

Part Two - Observing Movement

The video on the web site shows how the amoeba moves. When the amoeba moves by pushing cytoplasm in one direction, it forces the cell to move into that direction.

Observe the movement of the amoeba in the video. Draw what it looks like at 0 seconds, 15 seconds, and 30 seconds. Draw an arrow on each of your pictures indicating where the cytoplasm is moving. (Draw your pictures on the next page.)

Amoeba at 0 sec*Amoeba at 15 sec**Amoeba at 30 sec*

Part Three - Cell Structures

The amoeba has many easily identified parts. First, locate the nucleus. It is circular in shape, darker in color, and appears to have a rough surface. Just as in other cells we have studied, the nucleus is the control center of the cell; it contains the genetic information (DNA). You should also be able to see another large, clear circle (on the left). This is the contractile vacuole.



The contractile vacuole collects water that enters the cell from osmosis. It temporarily stores water before removing it from the cell. Observing a live specimen, you can see the contractile vacuole expand and contract as it fills with and removes water!

You'll also be able to observe food vacuoles. The food vacuoles store food particles for the amoeba. In the picture below, they appear in a greenish color. The green organisms that the amoeba fed on are called chlorococci. The outer part of the amoeba is the cell membrane.

Part Four - Labeling the Diagram

Label the diagram below with the following parts: cell membrane, contractile vacuole, food vacuole, nucleus, and pseudopod.

