

## OBSERVING PROTISTS

Biology

Name: \_\_\_\_\_

Period: \_\_\_\_\_ Date: \_\_\_\_\_

### PURPOSE

1. To gain experience with microscope techniques.
2. To observe living protists under the microscope.
3. To compare structure and activity of three different groups of protists.

### MATERIALS

*Prepared slides of Amoeba, Paramecium, and Euglena*

microscope

microscope slides

cover glasses

protoslo

### PROCEDURE

You will observe three protists from premade slides. Observe them one at a time under the microscope.

1. Observe the slide *Amoeba* first, observe what you see, and answer the questions. Repeat the steps for *Paramecium* and *Euglena*.
2. Use the scanning (4X) objective on the microscope to find the organisms and low power (10X) to observe what you see. Use high power (40X) to observe the fine-level structure.
3. Experiment with different settings of the diaphragm to enhance various aspects of the organism.
4. As you observe the organism, fill in the data table. You will repeat Questions a-c for each organism.
  - a. What is the general shape of the organism?
  - b. What is the overall color?
  - c. What structures does the organism use to move?
5. Make a labeled sketch of the organism as you observe it under high power. Refer to the diagrams to identify various parts of the organism. Label the following structures.

*Amoeba*: cell membrane, nucleus, pseudopodia, cytoplasm, contractile vacuole,

*Paramecium*: cilia, nucleus, gullet, contractile vacuole

*Euglena*: nucleus, flagellum, cytoplasm, eyespot, chloroplast, contractile vacuole

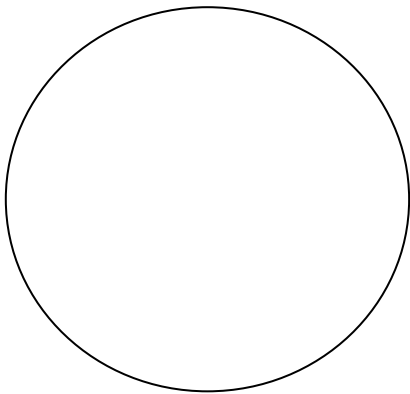
# STUDENT DATA SHEET

## DATA

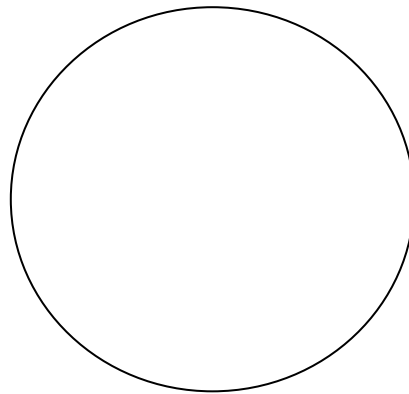
Table 1. Observations of five protists

Characteristic	Amoeba	Paramecium	Euglena
General shape			
Overall color			
Structures for movement			

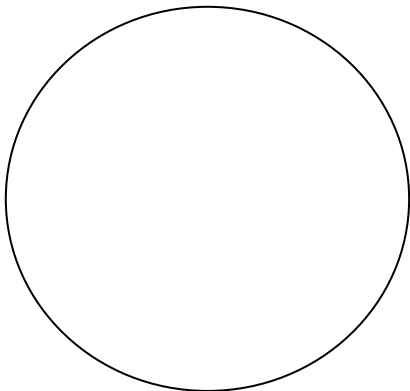
## DRAWINGS



*Amoeba*



*Euglena*



*Paramecium*

## ANAYLSIS

1. What characteristics are common to the organisms you observed? \_\_\_\_\_

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2. In what ways do these organisms differ? \_\_\_\_\_

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3. What evidence do you have that some protists might be capable of photosynthesis?

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4. Which species of protists had contractile vacuoles that were easiest to see?

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5. Why would we have to use protoslow before observing the protest?

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