

Unit

1

Handout

35

*Lesson 6: Paramecia Observations***Purpose:**

To explore the structures, function, and classification of the protist Paramecium.

Question:

What are paramecia and how are they classified?

Instructions for Part 1:

- See Mr. Ower for a drop of the paramecia culture. Wait a moment before observing with your microscope.
- Observe at 40X finding a paramecium. If you find a still paramecium, work your way to medium and then high power for closer examination.

Instructions for Part 2:

Read through the following section and answer the questions as required. Always write 1-3 sentences for each responses when required.

1. The paramecium has a cell membrane. And, more importantly, it has a part just outside the cell membrane called the **pellicle**. What is the function of the **pellicle**?

2. Use the fine focus knob to take the paramecium into and out of focus. You should notice thousands of short hairs moving. These are the **cilia**. What are the three functions of the cilia?

3. Observe the interior part of the paramecium. You should observe one or more star-shaped structures. These are the **contractile vacuoles**.
 - a. What is the function of a contractile vacuole?

 - b. Why does the paramecium need a contractile vacuole?

4. The paramecium is, like all protists, a eukaryote. You should be able to see a large nucleus within the cell. The function of the large nucleus is to control the everyday tasks of the cell. However, near the large nucleus, is a second nucleus, called the **small nucleus (micronucleus)**. What is its function?

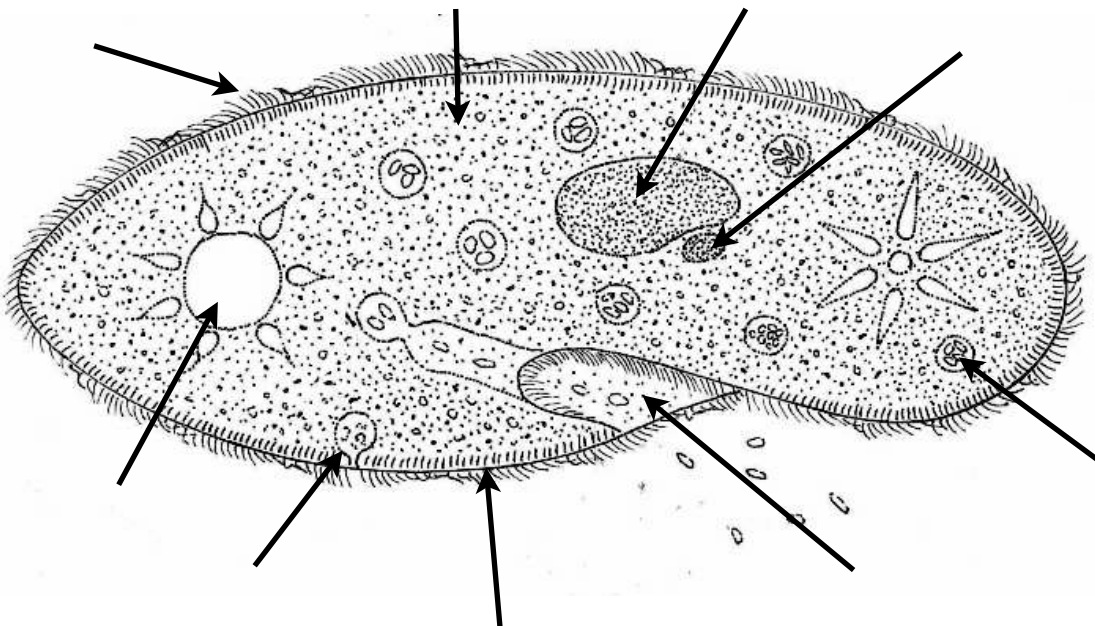
5. You may have noticed that the paramecium is shoe-shaped. That is, there is an indent or channel on one side of the paramecium. This is called the **oral groove**. What is its function?

You do not need to write sentences for 6 and 7. Just fill in the blanks!

6. **Food vacuoles** form at the end of the oral groove. The function of the food vacuole is to _____ and _____ food.
7. After the food vacuole finishes its function, it moves to the edge of the cell and expels the waste material. This creates a temporary part in the cell called the _____.

Part 3

Below is a diagram of a paramecium. Based on what you have learned, label the diagram with the following parts: anal pore, contractile vacuole, cilia, food vacuole, large nucleus, oral groove, pellicle, small nucleus. Please write a very short definition for each of these parts. Also label the cytoplasm but **do not define it**.



Reflecting.

1. Which subgroup of protist (protozoa, algae, decomposer) does the paramecium belong to? What evidence do you have to support your answer? Write 1-3 sentences to answer these questions.