



# 7A Protozoans

## What are the characteristics of protozoans?

Most organisms in the Kingdom Protozoa consist of a single cell. How do these organisms move and gather food? In this investigation, you will examine amoeba, paramecium and euglena using the light microscope. You will observe their movement and characteristics. You will also develop a hypothesis about how each organisms gets food.

### Materials

- Live euglena culture
- Live amoeba culture
- Live paramecium culture
- Depression slides
- Coverslips
- Corn syrup
- Light microscope
- Toothpicks
- Dropper

## 1 Preparing slides of live protozoans

### Observing amoeba

1. Place two drops of water into the chamber of the depression slide.
2. Slowly place a dropper into the amoeba culture. Be sure to place the dropper at the bottom of the culture since the amoeba will be located at the bottom of the jar.
3. Remove the dropper and place a single drop of the culture into the chamber of your compression slide.
4. Carefully, place a cover slip on top of the chamber and place under the microscope.
5. Using your medium power, bring the amoeba into view.
6. Once you have found the amoeba, switch to your high-power objective.
7. Make a sketch of what you observe under the microscope in Table 1.
8. Observe the movement of the amoeba and record your observations in Table 1.

### Observing Paramecium and Euglena

1. Wash and thoroughly dry the chamber of the compression slide.
2. Repeat steps 1-3 above.
3. Place a drop of corn syrup into the chamber of the depression slide. Protozoa are very fast and corn syrup will slow the organisms so they may be viewed more easily under the microscope.
4. Place a single drop of paramecium culture into the chamber of the depression slide.
5. Using a toothpick carefully mix the corn syrup and the paramecium.
6. Carefully, place a cover slip on top of the chamber and place under the microscope.
7. Using your medium-power objective, bring the paramecium into view.
8. Once you have found the paramecium, switch to your high-power objective.
9. Sketch a picture of what you observe under the microscope in Table 1, paramecium.
10. Observe the movement of the paramecium and record your observations in Table 1.

11. Repeat the procedures this time using the euglena culture.

**Table I: Protozoa observations**

Amoeba	Paramecium	Euglena
Observations:	Observations	Observations:

**2 Thinking about what you observed**

a. Describe the way each organism (amoeba, paramecium, and euglena) moves. Which ones have structures for movement? Do those structures look like?

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b. Do any of the organisms have a structure that resembles a mouth? Make a hypothesis about how each organism feeds.

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c. Use the diagram (at right) to help you identify the structures of each organism. Label the structures you observed in your sketches.

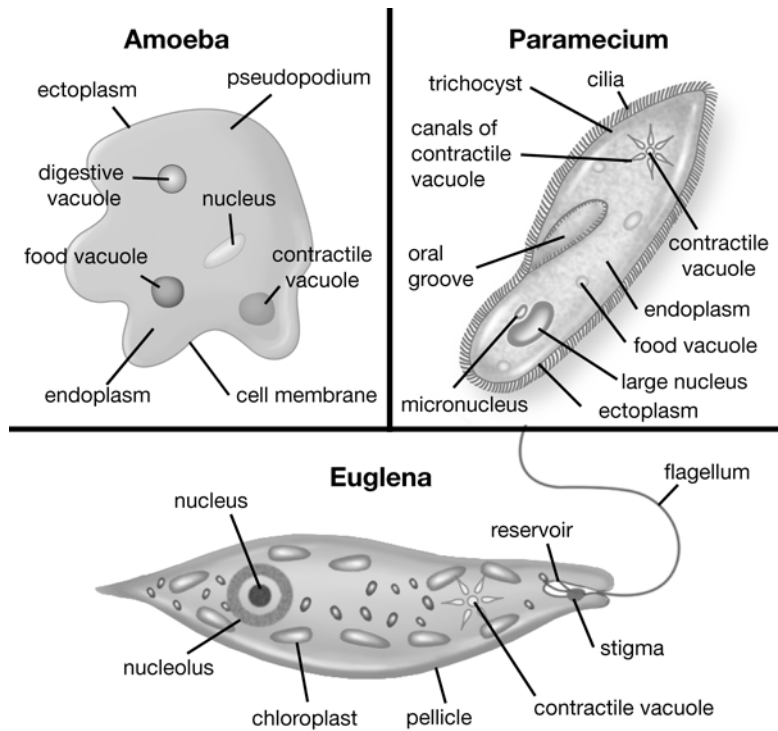
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### 3 Exploring on your own

Protozoans are everywhere and will make their homes in a variety of water sources. Some protozoans cause sickness in humans. One species called *Giardia lamblia* is closely related to paramecium. It lives in freshwater sources. Research *Giardia* and write a short report. Use the key word “Giardia” in your Internet search. Include in your report the following information:

- a. Where is *Giardia* found? How do people contract the disease?

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- b. What are the symptoms of the disease caused by *Giardia*?

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- c. How is the disease treated?

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- d. How can the disease caused by *Giardia* be prevented?

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