

UNIT  
8

## ACTIVITY

## Volvox Observation Lab

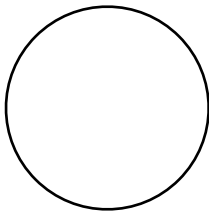
*Purpose:*

- To observe volvox and how they are organized
- To identify the structures of a volvox colony

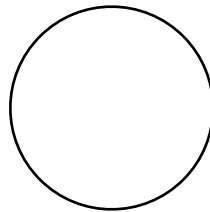
*Procedure*

1. Obtain your slide materials from the back of the room (well slide and cover slip).
2. Bring these materials to the front. Ensure that the well side is facing in up so the water drop will be placed correctly on the slide.
3. Find a volvox on low power. They are easy to spot as they are green spheres.
4. Sketch a drawing of the euglena on medium and high powers.

Title \_\_\_\_\_  
Mag 100X



Title \_\_\_\_\_  
Mag 400X

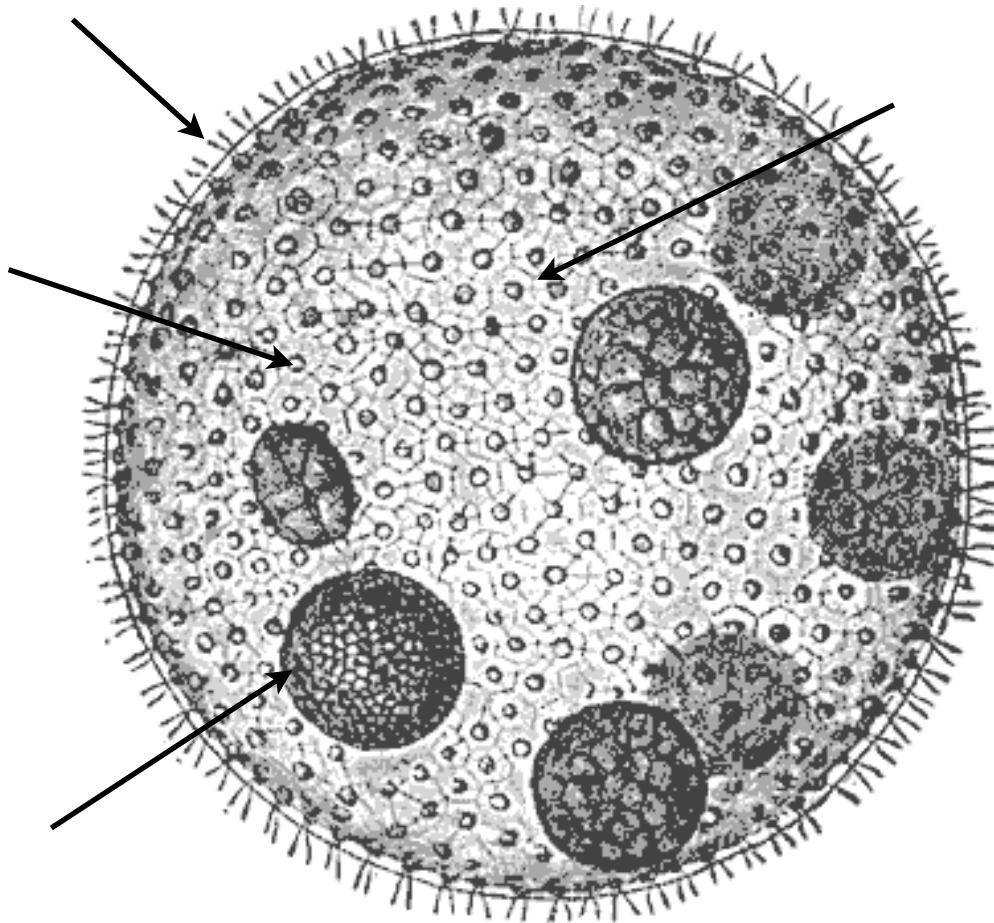


5. Volvox are considered to be algae because they contain \_\_\_\_\_, a pigment found in most photosynthetic organisms.
6. There are anywhere from \_\_\_\_\_ to \_\_\_\_\_ individual cells that form the volvox. The volvox itself is not an organism, but a \_\_\_\_\_ of individual cells. As a result you can see volvox with your naked eye (although not very well!).
7. The cells are held together by \_\_\_\_\_. Using high power and adjusting the fine adjustment knob you should be able to observe this material connecting the cells together.
8. On high power, you should be able to observe that each individual cell has two \_\_\_\_\_ that allow it to move. The volvox beats these synchronously and that allows the volvox to move.
9. Some of the cells in the volvox are \_\_\_\_\_. Some of the cells are actually female and others are male. This allows them to reproduce sexually. However, the colony can also reproduce through asexual reproduction.
10. Find a volvox that contains smaller green spheres within it. These smaller green spheres are \_\_\_\_\_.

*Diagram*

Label the following diagram with these parts:

daughter colony, flagella, gelatinous membrane, individual cell

*Questions*

1. Which group of protist (protozoa, algae, decomposers) do volvox belong to?

How do you know? \_\_\_\_\_

2. A student says "Volvox are protozoa because they move." Explain why they are incorrect.

\_\_\_\_\_

3. The individual cells in a volvox contain eyespots. Explain why the cells have this part.

\_\_\_\_\_

\_\_\_\_\_