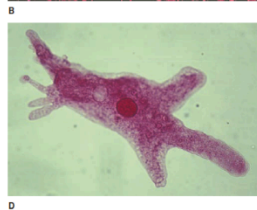
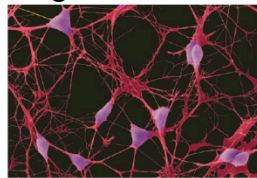
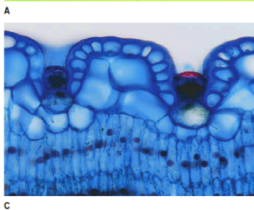


CS 8.1 Question Set #1:

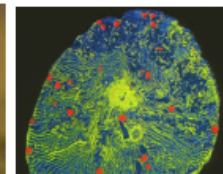
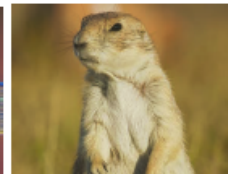
1. How did Robert Hooke's and Antoni van Leeuwenhoek's discoveries change the way people understood life and living things?
2. According to scientists, all living things share certain characteristics. What are these characteristics?
3. How might the cells of the single-celled mycoplasma be different from a blue whale?
4. Describe in your own words what each of the following organelles do:
 - a. Nucleus
 - b. Cell Membrane
 - c. Cell Wall
 - d. Mitochondria
 - e. Chloroplast
 - f. Cytoplasm
 - g. Vacuole
5. Here are some images of cells:



a. Decide whether the cell in each photo is a unicellular organism or part of a multicellular organism. Explain how you made your decision in each case.

b. For each photo, use your experiences to identify as many cell structures as you can. Explain what you think the functions of each structure are.

6. Identify the following organisms as unicellular or multicellular. Give reasons for your answers in each case.



7.
 - a. Sketch a plant cell. Label the organelles and other cell structures you would see if you examined the cell using a microscope.
 - b. Repeat exercise a. for an animal cell.
 - c. Based on your observations and the sketches you just made, describe the key differences between plant cells and animal cells.
8. In your opinion, which structure or organelle is the most important to the health of a cell? Give reasons to support your answer.