Name Period Date

Unit 1	Handout _____	*Lesson 6: Amobea Observations*

Purpose:	To explore the structures, function, and classification of the protist Euglena.
Question:	What are amoeba and how are they classified?

Instructions for Part 1:
- See Mr. Ower for a drop of the Amoeba culture. Cover the drop with a cover slip
- With your partner, locate the protist at 100X. Center one in the field of view and move to 400X. If you cannot keep the protist centered at 400X, return to 100X.

- Have Mr. Ower initial to verify you have found an amoeba: _____

Instructions for Part 2:
Observe the amoeba for several minutes. Draw a simple picture of what it looks like at 0 minutes, 2 minutes, and 4 minutes. Use arrows to indicate the amoeba's movement.

At 0 Minutes	At 2 Minutes	At 4 Minutes

Having observed the amoeba, continue this sheet by writing 1-2 sentences that respond to each question or statement.

3. You should have observed the cytoplasm moving. This is a process called **protoplasmic streaming** (or cytoplasmic streaming). This process creates pseudopods. Locate a pseudopod. The **pseudopod** is a temporary bulge that appears as the amoeba moves. There are two functions (jobs) of the pseudopod. What do you think they are?

4. Locate the **contractile vacuole** in the amoeba. It appears as a large, clear circle within the amoeba. It will grow larger and then shrink.
a. What is the function of a vacuole (in general)?

b. The amoeba is found in a hypotonic environment. This means water is constantly entering the cell. With this in mind, what do you think the job of the contractile vacuole is?

5. Locate the **nucleus** in the amoeba. It looks similar to the contractile vacuole but is darker in color. What is the function of the nucleus?

6. Locate the food vacuoles. Throughout the cell you should see small circles that have a variety of colors. What do you think the function of a **food vacuole** is? (Hint: think of what a vacuole does, and then just combine that with the idea of food, yea!).

7. Amoeba obtain their energy by searching for other microorganisms and eating them. They do this through a process called **endocytosis**, which means to bring within the cell. How would you subclassify this protist: as a protozoa, algae, or decomposer, and why?

Part 3

Below is a diagram of an amoeba. Based on what you have learned, label the diagram with the following parts: cell membrane, contractile vacuole, food vacuole, nucleus, and pseudopod. Page 83 in your textbook has a great diagram of one you can use for help. **Also**, define each part you label.