



### Complete this activity.

3.13

Use characteristics of an animal to complete a drawing, then test your description.

a. Name five characteristics of animals, then draw an animal to fit the description.

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b. Ask your teacher to identify the animal.

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## PLANT CLASSIFICATION

Examples of keys and classification for different plants and animals separate those organisms not only by genus and species, but also by family, class, and other taxa. A classification from kingdom to species gives us a great deal of information about an organism, as we shall see.

Let's find out the type of information we can gain from classifying a grass that is a favorite for summertime eating in the United States. We know this plant as corn.

Along with the information that classification gives, we should take note of the Latin clue endings for taxa. For plants, *-ophyta* is a division ending, *-ae*, or *-eae* is a class ending, *-ales* is an order ending, and *-aceae* is the usual family ending. Notice also that all taxa names are italicized (or underlined) and that the species name also includes the genus name.





Use the microscope.

These supplies are needed:

a prepared slide of amoeba

microscope

Follow these instructions. Put a check mark in the box when each step is completed.

- 1. Place a prepared slide of amoeba in your microscope. Carefully focus the slide. Ask your teacher or helper to assist if you have trouble. Scan the area with low power. Some amoebas such as *Amoeba chaos*, are so large they can be seen with low power. If high power is needed, rotate the nosepiece to the high power objective. Locate the following parts and compare them with the attached drawing of an amoeba.
- 2. Locate a *pseudopodium* (false foot) where the protoplasm has flowed.
- 3. The nucleus should be rather darkly stained. This structure controls reproduction.
- 4. Find some *food vacuoles*. These structures may be scattered in various areas.
- 5. Locate a large clear *excreting vacuole*.

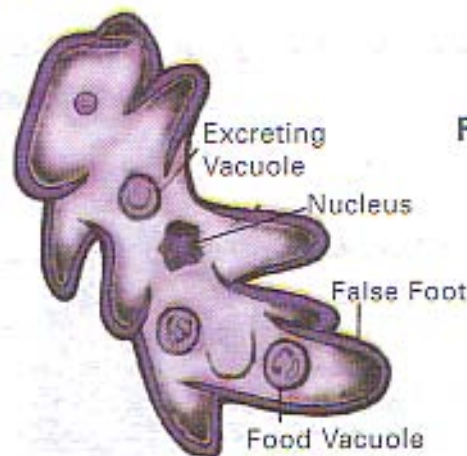


Figure 2: Amoeba



Complete these statements.

- 2.1 The basic living substance of all organisms is \_\_\_\_\_.
- 2.2 The meaning of pseudopodia is \_\_\_\_\_.
- 2.3 The diet of the amoeba consists mainly of \_\_\_\_\_.
- 2.4 Amoebas reproduce by dividing their protoplasm into two amoebas. This type of reproduction is known as \_\_\_\_\_.



State the functions of these amoeboid structures.

- 2.5 nucleus \_\_\_\_\_
- 2.6 cyst \_\_\_\_\_
- 2.7 water vacuole \_\_\_\_\_
- 2.8 pseudopodia \_\_\_\_\_
- 2.9 food vacuole \_\_\_\_\_



## SCIENCE 1010: LIFE PAC TEST

Write the letter for the correct answer (each answer, 2 points).

1. Which of the following items is part of the scientific method? \_\_\_\_\_ .
  - a. observation
  - b. hypothesis building
  - c. experimentation
  - d. all of the above
2. The Greek word meaning life is \_\_\_\_\_ .
  - a. bios
  - b. logos
  - c. alpha omega
3. Organs are composed of \_\_\_\_\_ .
  - a. tissues
  - b. communities
  - c. biomes
4. The organism responsible for rabies is \_\_\_\_\_ .
  - a. rickettsia
  - b. virus
  - c. bacteria
5. During development of a new organism, the specialization of cells into tissues and organs is under control of \_\_\_\_\_ .
  - a. chemical agent
  - b. neural stimuli
  - c. cosmic radiation
6. The rapid increase in the world population is primarily a result of \_\_\_\_\_ .
  - a. increased birth rate
  - b. decreased death rate
  - c. increased availability of food
7. Sex chromosome abnormalities are more common than autosomal abnormalities because \_\_\_\_\_ .
  - a. the autosome is more stable
  - b. the sex chromosome is more susceptible to mutation
  - c. autosomal defects are lethal to the fetus
8. The principle of eugenics is \_\_\_\_\_ .
  - a. the removal of a gene from a person's genotype by surgery or drugs
  - b. the removal of a gene from the population by either eliminating people who carry the gene from the population or not allowing these people to reproduce
  - c. evidence that people are not equal and that one group of people is superior to another group

Write *true* or *false* (each answer, 1 point).

9. \_\_\_\_\_ The development of science is the result of the curious nature of man, which has caused him to ask questions and search for answers.
10. \_\_\_\_\_ Man's early attempts to understand the natural world came through logic and investigation.