

Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

## Biology Benchmark Review

### Section 1: Lab Safety and the Scientific Method

1. List some Lab equipment found in the laboratory.
2. Look over your lab safety symbols
3. List 6 Lab safety equipment devices found in the lab.
4. Review Safety Rules
5. List the steps of the scientific method.
6. What is another word for an educated guess?
7. What is a statement made in advance?
8. What is a theory
9. What is the one factor that changes in an experiment?
10. Compare and contrast qualitative and quantitative research.
11. Compare and contrast independent and dependent, or manipulated vs. responding variables, respectively.

### Section 2: Characteristics of Life

1. What is the basic unit of life?
2. What is homeostasis?
3. Where does almost all energy for life on earth come from?
4. How do plants produce energy?
5. Organisms that make their own food are called \_\_\_\_\_.
6. Organisms that must take in food are known as \_\_\_\_\_.
7. What are the characteristics of life?
8. Define each of the following types of biology:
  - Biology –
  - Ecology–
  - Paleontology–
  - Taxonomy –
  - Zoology–
  - Botany–
  - Evolution-
9. What is a phylogeny? What is a phylogenetic tree?

### Section 3: Cell Structure and Function

1. What is a prokaryotic cell? What two kingdoms represent this cell type?
2. What is a eukaryotic cell? What kingdoms are included in this cell type?
3. What is an organelle?
4. List the 3 parts of the cell theory.
5. Distinguish between cilia and flagella.
6. Compare and contrast plant cells and animal cells.
7. Give the function for each organelle:
  - a. Nucleus –
  - b. Golgi apparatus-
  - c. Endoplasmic reticulum
  - d. Mitochondria
  - e. Lysosome
  - f. ribosome
8. What do chloroplasts do? And what do they contain? What type of cell contains this organelle?
9. Tell what each Scientist is known for:
  - a. Linnaeus –
  - b. Anton von Leeuwenhoek –
  - c. Robert Hooke –
10. Who were the men responsible for developing the cell theory?