

UNIT REVIEW

Diversity of Living Things

1. Put the following terms in order from smallest to largest according to the hierarchical organization of living things: organ; molecule; ecosystem; atom; organ system; organism; tissue; cell; cell organelle; population.
2. List and define the characteristics of living things.
3. Define the term “taxonomy”.
4. List the seven levels of organization used for classifying organisms.
5. Describe the differences between prokaryotes and eukaryotes.
6. Are the following prokaryotes or eukaryotes? bacteria, viruses, protists, human muscle cells, corn leaf cells
7. List the 6 kingdoms of living things and describe their similarities and differences.
8. Practice solving dichotomous keys.

Microbiology

1. What is the size of a typical bacterium?
2. Draw and label a diagram of a typical bacterium.
3. List 4 characteristics of bacteria.
4. Where do bacteria live?
5. How do bacteria reproduce?
6. How are bacteria classified by their shape?
7. Define the following terms: flagellum; gram stain; asexual; prokaryote; binary fission; heterotroph; autotroph; chemotroph; aerobic; anaerobic; bacteriophage.
8. Describe the procedures you used in class for culturing, inoculating and incubating bacteria.
9. List three examples of helpful bacteria. List three examples of harmful bacteria.
10. What bacteria cause food poisoning?
11. What is antibiotic resistance? Why are humans concerned about antibiotic-resistant bacteria?
12. Why do scientists have difficulty deciding whether viruses are alive or not alive?
13. What is the size of a typical virus? Draw and label the structure of a typical virus.
14. List three characteristics of viruses.
15. How do viruses reproduce? Draw and label a diagram of their reproductive cycle.
16. List three diseases caused by viruses.
17. What is the flu? What are some symptoms of the flu? Who is at risk of getting the flu? How is it possible that one can get the flu multiple times?

18. What is a protist? What are the general characteristics of protists?
19. What are common examples of fungus?
20. How do fungi reproduce?

The Immune System

1. What microbes does the body protect itself against?
2. What is the body's 1st line of defence? How does skin protect the body? How do mucous, cilia, and tears protect the body?
3. What is the body's 2nd line of defence?
4. How do white blood cells fight infections?
5. What is the body's 3rd line of defence?
6. What are antigens? What are antibodies?
7. How does a vaccine prevent an infection?
8. How does an antibiotic fight an infection? What is antibiotic resistance?
9. What everyday things can you do to prevent infections?