


## Unit 4 Review

### Summary

- Viruses are made up of a nucleic acid and a protein. Viruses are not made up of cells.
- Viruses can reproduce. However, viruses can reproduce only when inside other living things.
- Bacteria are made up of a single cell with only a few of the structures found in more complex cells.
- Blue-green bacteria differ from most other bacteria because blue-green bacteria can make their own food.
- Viruses and bacteria affect other living things. Many cause diseases.
- Other living things could not survive without some types of bacteria. Decomposers break down dead organisms. Nitrogen-fixing bacteria make nitrogen into a form that plants can use.
- Protists are mostly single-celled living things that evolved from bacteria and blue-green bacteria.
- Protists have a complex cell structure, much like the cells of plants or animals.
- Protists may have traits of plants, of animals, or of both.
- Fungi are living things that share some traits with plants, animals, and protists.
- Some fungi can have harmful effects. Other fungi are very helpful and are used to make certain foods and medicines.

### For Your Portfolio

1. Have you ever left a glass of milk on the kitchen counter? The milk may have turned into a solid. What caused this change? Look up a recipe for yogurt. Follow the recipe. Why do you think milk is one of the ingredients in the recipe?

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2. Go to the library and find books about how cheese is made. Make a poster that shows the steps in the process. Get your teacher's and your parents' permission to bring samples of different types of cheeses to class. Tell your classmates how each kind of cheese was made.
  3. What is pasteurization? Why is it important? On whose name is this word based? Use reference books to find out about the history of pasteurization. Share your results with your class.
  4. Go to the library or the school nurse to find out about common diseases that are caused by viruses, bacteria, or protists. Find out as much as you can about one of the diseases. Make a poster about the disease and share your results with your classmates.
  5. Go to your library or to a local health clinic to find out as much as you can about HIV. What is HIV? How does it spread? What can be done to prevent its spread? What is AIDS, and who can get it? What is the relationship between HIV and AIDS? Why is AIDS such a difficult disease to control? Report your findings to your class.
  6. Find out about drug-resistant tuberculosis. Why do some diseases become drug resistant? What can be done to solve the problem? Go to the library and find articles in magazines and newspapers that discuss the issue. Report your findings to your class.
  7. Go to the produce section of a large grocery store in your town. Find the mushrooms. What kinds of mushrooms are there? Use a key about fungi to learn the scientific name of each mushroom you observed. Display the mushrooms for your class.
  8. Experiment with yeast. Add some yeast to warm water, set it aside, and watch what happens. If you have someone to help you, try making bread with dry yeast. Make many small batches of dough. Compare the results when you change the temperature at which you prepare the yeast. Which temperature works best? Why?

## Unit 4

## PRACTICE TEST

In the space provided, write the letter of the correct term for each definition below.

- |       |   |                             |
|-------|---|-----------------------------|
| _____ | 1. noncellular organisms made up of genetic material and protein  | a. cilia                    |
| _____ | 2. process of making more of the same kind  | b. fruiting body            |
| _____ | 3. single-celled living things that lack a nucleus  | c. virus                    |
| _____ | 4. cell structure that controls most cells and is not present in bacteria                                     | d. decomposers              |
| _____ | 5. bacteria that make their own food, similar to the way in which plants make food                            | e. nucleus                  |
| _____ | 6. living things that break down dead matter into simpler materials that can be reused by other living things | f. protist                  |
| _____ | 7. bacteria that take nitrogen from the air and form nitrogen compounds that can be used by plants            | g. flagellum                |
| _____ | 8. a living thing made up of a single cell that is more complex than a bacterial cell.                        | h. blue-green bacteria      |
| _____ | 9. plantlike protist that moves with a flagellum  | i. reproduction             |
| _____ | 10. long, whiplike structure that helps some types of cells move from place to place                          | j. nitrogen-fixing bacteria |
| _____ | 11. tiny "hairs" on the outside of some cells that push the cell through water                                | k. bacteria                 |
| _____ | 12. animal-like protist that moves by changing its shape  | l. euglena                  |
| _____ | 13. part of fungi used in reproduction and often the only part that can be seen                               | m. amoeba                   |

Complete the following sentences.

14. Viruses can \_\_\_\_\_ only when inside the cells of living organisms.
15. Compared to bacteria, protists have a \_\_\_\_\_ cell structure.
16. Fungi share traits with \_\_\_\_\_.

Answer one of the following questions.

17. In a short essay, name two kinds of decomposers and explain why decomposers are important.
18. Draw a paramecium and label its main parts.