1. What do scientists use observations and data for?

2. Describe and define theory. What can cause a theory to change? How are theories formed?

3. The variety of life across the biosphere is called what?

4. Define *species*.

5. Define and give examples of metabolism.

6. Define evolution and specifically, what types of changes does evolution refer to?

7. What makes a hypothesis valid?

8. On Earth, how does biodiversity generally increase?

9. Why is it important to have an understanding of biology?

10. How does science differ from other disciplines, such as history and the arts?

11. What do you call the information gathered from observing a plant grow 3 cm over a two-week period?

12. You suggest that increasing the amount of sugar in bread could accelerate the rising time of the bread dough. What is this an example of?

13. How many variables can be tested in a controlled experiment?

14. During an experiment, which factors are observed and measured?

15. Why do scientists publish the details of important experiments?

16. Which of the following characteristics of living things best explains why birds fly south for the winter?

17. Why are the cells in multicellular organisms specialized?

18. Describe and define *homeostasis.*

19. What is a compound light microscope and when would a scientist use it?

20. Define some safety procedures you would use when working with animals.

21. Define and describe the dependent variable in an experiment.

22. Why is the ability to reproduce results an important part of an experiment?

23. What are the amounts of light and temperature examples of?

24. What is the best reason for using a scanning electron microscope?