

24. a. Suppose different parts of a sample material have different compositions. What can you conclude about the material? (1-2)
- b. Suppose different parts of a sample have the same composition. What can you conclude about the material? Explain your answer. (1-2)



HANDBOOK SEARCH

26. Review the information on trace elements in the *Elements Handbook* in the back of this text.
- What are the functions of trace elements in the body?
 - What transition metal plays an important role in oxygen transport throughout the body?
 - What two Group 1 elements are part of the electrolyte balance in the body?

TECHNOLOGY & LEARNING

25. Graphing Calculator Graphing Tabular Data

The graphing calculator can run a program that graphs ordered pairs of data, such as temperature versus time. In this problem you will learn how to create a table of data. Then you will learn how to use the program to plot the data.

Go to Appendix C. If you are using a TI 83 Plus, you can download the program and data sets and run the application as directed. If you are using another calculator, your teacher will provide you with keystrokes and data sets to use. Remember that after creating the lists, you will need to name the program and check the display, as explained in Appendix C. You will then be ready to run the program. After you have graphed the data sets, answer these questions.

- Approximately what would the temperature be at the 16-minute interval?
- Between which two intervals did the temperature increase the most: between 6 and 7 minutes, between 5 and 6 minutes, or between 8 and 9 minutes?
- If the graph extended to 20 minutes, what would you expect the temperature to be?

RESEARCH & WRITING

27. Research any current technological product of your choosing. Find out about its manufacture and uses. Also find out about the basic research and applied research that made its development possible.

ALTERNATIVE ASSESSMENT

28. Make a list of all the changes that you see around you involving matter during a one-hour period. Note whether each change seems to be a physical change or a chemical change. Give reasons for your answers.
29. Make a concept map using at least 15 terms from the vocabulary lists. An introduction to concept mapping is found in Appendix B of this book.