Name _____ Date _____ Class _____

Science Laboratory Safety

Key Concepts

- Why is preparation important when carrying out scientific investigations?
- What should you do if a lab accident occurs?

Good preparation helps you stay safe when doing science activities in the laboratory. Preparing for a lab should begin the day before you will perform the lab. It is important to read through the procedure carefully and make sure you understand all the directions. Also, review the general safety guidelines in Appendix A.

The most important safety rule is simple: Always follow your teacher's instructions and the textbook directions exactly. Labs and activities in this textbook include safety symbols. These symbols alert you to possible dangers in performing the lab and remind you to work carefully. They also identify any safety equipment that you should use to protect yourself from potential hazards. The symbols are explained in Appendix A.

You should always keep your work area clean and organized. Also, do not rush through any of the steps. Always show respect and courtesy to your teacher and classmates.

When you have completed a lab, clean up your work area. Dispose of any waste materials according to your teacher's directions. Then wash your hands thoroughly.

At any time, an accident can occur in the lab. **When any accident occurs, no matter how minor, notify your teacher immediately. Then, listen to your teacher's directions and carry them out quickly.** Make sure you know the location and proper use of all the emergency equipment in your lab room. Knowing safety and first aid procedures beforehand will prepare you to handle accidents properly.

Science Laboratory Safety (pp. 17–20)

This section explains why preparation is important when carrying out scientific investigations. It also describes what you should do if an accident occurs.

Use Target Reading Skill

Before you read, preview Figure 10. Then write two questions that you have about the figure in the graphic organizer below. As you read, answer your questions.

Safety in the Lab

Q. Why are safety goggles necessary in the lab?
A.
Q.
A.

Safety in the Lab (pp. 18–20)

1. Is the following sentence true or false? No amount of preparation can help you with safety when doing science activities in the laboratory.

   _____

2. Circle the letter that identifies when preparing for a lab should begin.
   a. 1 hour ahead of the lab
   b. 10 minutes ahead of the lab
   c. the morning of the lab
   d. 1 day before doing the lab

3. In preparing for a lab, it is important to review the general safety guidelines, which can be found in _____ of your book.

4. What should you do if something is unclear to you about the lab before you begin?

   _____

5. What is the most important safety rule when performing a lab?

   _____

   _____

   _____

6. Is the following sentence true or false? You should never try anything on your own in the lab without asking your teacher first. _____

7. Circle the letter of each sentence that is true about safety symbols.
   a. They identify safety equipment that you should use.
   b. They alert you to possible dangers in doing the lab.
   c. They give you specific instructions about each lab in the book.
   d. They remind you to work carefully.

Match the symbol with its meaning by writing the correct letter beside each symbol.

____ 8. 

____ 9. 

____ 10. 

____ 11. 

____ 12. 

a. Sharp Object
b. Corrosive Chemical
c. Physical Safety
d. Breakage
e. Disposal

13. When you have completed a lab, you should _____ your work area.

14. How should lab wastes be disposed of?

_____

_____

15. Is the following sentence true or false? You should wash your hands after working in the laboratory even if you don't think they're dirty.

_____

In Case of an Accident (p. 20)

16. What should you do immediately whenever an accident occurs?

_____

_____

17. Circle the letter of what to do if you spill something on your skin while doing a lab.
   a. Cover the skin with a clean dressing.
   b. Put on plastic gloves.
   c. Flush the skin with large amounts of water.
   d. Do nothing unless the skin blisters.

Science Laboratory Safety

Understanding Main Ideas

Answer the following questions in the spaces provided.

1. Why does good preparation help you stay safe when doing science activities in the laboratory?

2. What is the most important safety rule when performing a lab?

3. What is the purpose of the safety symbols used in the textbook?

4. What are four important things you should do at the end of every lab?

5. What should you immediately do when any accident occurs in the lab?