

Directed Reading A

Section: Tools, Measurement, and Safety

- _____ 1. What is a *tool*?
- a. something that helps you do a task
 - b. hardware that helps you do a task
 - c. anything that helps you build something
 - d. anything with a handle

TOOLS IN SCIENCE

2. One way that tools are used in scientific investigations is for collecting _____ by taking measurements.
3. List four examples of tools used for measuring.

4. List three examples of tools that help you analyze or communicate data.

5. List two examples of units of measure used in the distant past.

6. Scientists all over the world use the _____, or the metric system, in their work.

7. What does "SI" stand for?

8. All SI units are based on multiples of _____, so changing from one unit to another is easy.

Directed Reading A *continued*

MAKING MEASUREMENTS

Match the correct description with the correct term. Write the letter in the space provided.

- | | |
|--|-----------------------|
| _____ 9. the measure of the size of an object in cubic meters or liters | a. mass |
| _____ 10. the amount of matter in a given volume; the ratio of the mass to the volume in an object | b. temperature |
| _____ 11. the measure of how long something is in millimeters and meters | c. length |
| _____ 12. the measure of how hot or cold something is in degrees Celsius | d. volume |
| _____ 13. the amount of matter in an object in grams, kilograms, or metric tons | e. density |

14. What is the SI unit for length?

15. What is the amount of matter in an object?

16. What is the SI unit for volume?

17. Describe how the liter is related to the meter.

18. How are volume and density related?

19. What is the SI unit for temperature?

20. What units of temperature do scientists frequently use?

Directed Reading A *continued*

SAFETY RULES

21. List five basic safety rules to follow when doing scientific experiments.

Match the labels to the icons. Write the letters in the spaces provided.

_____ **22.** heating safety

_____ **23.** eye protection

_____ **24.** sharp object

_____ **25.** electric safety

_____ **26.** clothing protection

_____ **27.** animal safety

_____ **28.** hand safety

_____ **29.** chemical safety

_____ **30.** plant safety

