

## Chapter 1

## STUDY GUIDE

## ● Solving Problems

*In the blank, write the letter of the term or phrase that best completes each statement.*

- \_\_\_\_\_ 1. The first step in any problem-solving strategy is to \_\_\_\_\_.  
a. collect information about the problem      b. identify the problem
- \_\_\_\_\_ 2. The method used by scientists for solving problems is known as the \_\_\_\_\_.  
a. control      b. scientific method
- \_\_\_\_\_ 3. A prediction about a problem that can be tested is a \_\_\_\_\_.  
a. hypothesis      b. conclusion
- \_\_\_\_\_ 4. A \_\_\_\_\_ is a standard for comparison in an experiment.  
a. variable      b. control
- \_\_\_\_\_ 5. An explanation backed by results obtained from repeated tests or experiments is a \_\_\_\_\_.  
a. theory      b. variable
- \_\_\_\_\_ 6. A process that uses certain skills to solve problems is called \_\_\_\_\_.  
a. theory      b. critical thinking
- \_\_\_\_\_ 7. A \_\_\_\_\_ is a changeable factor in an experiment.  
a. variable      b. control
- \_\_\_\_\_ 8. The best experiments test only one \_\_\_\_\_ at a time.  
a. variable      b. control
- \_\_\_\_\_ 9. If a conclusion does not support a hypothesis, the \_\_\_\_\_.  
a. experiment did not work properly      b. hypothesis should be revised
- \_\_\_\_\_ 10. If a hypothesis is supported by new data gathered over a period of time, it may become a \_\_\_\_\_.  
a. control      b. theory
- \_\_\_\_\_ 11. Making lists, drawing graphs, making a model, and eliminating possibilities are all \_\_\_\_\_ for solving problems.  
a. strategies      b. variables
- \_\_\_\_\_ 12. If a hypothesis has been backed by results from repeated tests or experiments, it becomes a \_\_\_\_\_.  
a. variable      b. theory