

Chapter 1 Study Guide (Ch. 1, sec. 1 and 2)

Name _____

Period _____

Date _____

1. What is science?

2. What are qualitative observations? What are quantitative observations?

3. What is physical science? Into what two main areas of study is physical science divided?

4. What is chemistry? What kinds of things will you learn when you study chemistry?

5. What is physics? What kinds of things will you learn when you study physics?

6. What is the scientific inquiry process?

7. Scientific inquiry often involves a series of steps that are used to solve a problem or answer a question. This series of steps is most often called the **scientific method**. The book lists six steps of the scientific method (look at the blue headings to find these), and we will learn a seventh step not listed in the book. List the steps of the scientific method.

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|------------------|----|
| 1) | 5) |
| 2) (not in book) | 6) |
| 3) | 7) |
| 4) | |
-

8. What is a hypothesis?

9. What is a variable in an experiment? Why is it important to change only one variable in an experiment?

10. What is a manipulated or independent variable? What is a responding or dependent variable?

11. What is a controlled experiment ?

12. What are data?

13. The scientific method is a series of steps used to answer a question or solve a problem. Do the steps of the scientific method always need to be used in the same order? Explain.