

Chapter 1 Guided Reading Section 1.1

1. Physics is a type of science that studies _____ and _____.
2. Mass is the measure of the amount of _____ in an object.
3. Energy is a measure of a system's ability to _____ or _____.
4. What do you call a rule that describes an action or a set of actions in the universe?
5. A system is a group of _____, _____, and _____ that are related.
6. A _____ is a factor that affects the behavior of a system.
7. What is a hypothesis?
8. What is an experiment?
9. List the four parts of the scientific method described on page 6.
 - 1.
 - 2.
 - 3.
 - 4.
10. A scientific explanation supported by a lot of _____ collected over a long _____ of _____ is called a _____.
11. In an experiment, the variable that causes the change in a system is called the _____ variable.
12. In an experiment, the variable that changes in response to choices made by the experimenter is called the _____ variable.
13. Explain the difference between the experimental variable and the control variables in an experiment.
14. Scientific evidence should be objective and _____.

Guided Reading Section 1.2

15. Distance is the amount of _____ between two unique points.

16. Distance is measured in units of _____.

17. List five common units used to measure distance.

a. _____

b. _____

c. _____

d. _____

e. _____

18. The _____ System is commonly used for everyday measurements in the United States.

19. The _____ System was developed in France during the 1800s.

20. Today, scientists use the _____ System of Units, abbreviated _____.

21. What does the prefix kilo- mean?

22. What does the prefix centi- mean?

23. What does the prefix milli- mean?

24. A quantity of time is called a _____.

25. The basic SI unit of time is the _____.

26. Convert the following:

60 seconds = _____

60 minutes = _____

24 hours = _____

27. Define accuracy.

28. Define precision.

29. _____ refers to the smallest interval that can be measured.

30. What are significant digits?

Guided Reading Section 1.3

31. The speed of a bicycle is the _____ traveled divided by the _____ it takes.

32. What must be true of a car moving at constant speed?

33. _____ means “for every” or “for each.”

34. Name two SI units for speed.

35. Write the equation used to find speed if you know the distance traveled and the time taken.

36. Write the equation you could use to find the distance traveled if you know the time taken and the speed.

37. Write the equation you could use to find the time taken if you know the distance traveled and the speed.

38. What is the difference between speed and velocity?

39. Write the four steps to solving physics problems outlined on page 20.

1.

2.

3.

4.