

Name: _____ Date: _____

Chapter 1

Guided Reader- Honors Chemistry

Directions: Please answer the questions to the guided reading activity as you read chapter 1 of your textbook. A word of advice: write page numbers by your answers so you can reference them later.

1. _____ is the study of the properties of materials and the changes that materials undergo.
2. Anything with mass and volume is _____.
3. What is a property?
4. What are the building blocks of matter?
5. When two or more atoms join together, they form a _____.
6. What are the two realms studied in chemistry?
7. What are the two principal ways of classifying matter?
8. What are the three states of matter?
9. _____ have definite shape and volume.
10. _____ have indefinite shape and definite volume.
11. _____ have indefinite shape and volume.
12. Only _____ are significantly compressible.
13. Substances are either _____ or _____.
14. What is the difference between elements and compounds?
15. What are mixtures?
16. Chemical abbreviations are known as chemical _____ and are arranged on the _____.
17. List two diatomic molecules.
18. What is the law of definite proportions?
19. Most matter we encounter consists of _____.
20. What is the difference between heterogeneous and homogeneous mixtures?
21. What is another name for homogeneous mixtures?
22. Is aspirin a mixture or a substance?
23. _____ can be measured without changing the identity and composition of the substance.
24. _____ describe how a substance reacts.
25. What is the difference between intensive and extensive properties?
26. _____ are changes to appearance but not to composition.
27. _____ are changes to the composition.
28. Boiling and melting are examples of _____ changes.

29. _____ depends on the components of a mixture to form gases.
30. _____ means writing of colors.
31. A tentative explanation is known as a _____.
32. _____ is a concise verbal statement or a mathematical equation that summarizes a broad variety of observation and experiences.
33. What is the SI unit for mass?
34. What is the SI unit for time?
35. Which is larger a kilometer or a centimeter?
36. What is larger a gigaliter or a picoliter?
37. What are the three temperature scales?
38. Which temperature scale contains absolute zero?
39. Write the formula for converting from Celsius to Fahrenheit.
40. What is the SI unit for volume?
41. Write the formula for density.
42. Counting numbers are exact/inexact numbers. CIRCLE 1
43. _____ always exists in measured quantities.
44. What is the difference between precision and accuracy?
45. All nonzero digits are _____.
46. Zeros _____ nonzero digits are significant.
47. Zeros at the beginning of a number are _____.
48. Zeros at the end of a number are only significant if the number has a _____.
49. Your answer to a multiplication or division problem should be rounded to the same number of _____ as the measurement with the fewest sig figs.
50. Your answer to addition and subtraction problems should be rounded to the same number of _____ as that of the measurement with the fewest decimal places.
51. A method of problem solving that focuses on units is _____.
52. What is a conversion factor?
53. In volume conversions that use length conversion factors, the numbers and units in the length conversion factors are _____.
54. Conversion factors are exact/inexact numbers. CIRCLE 1