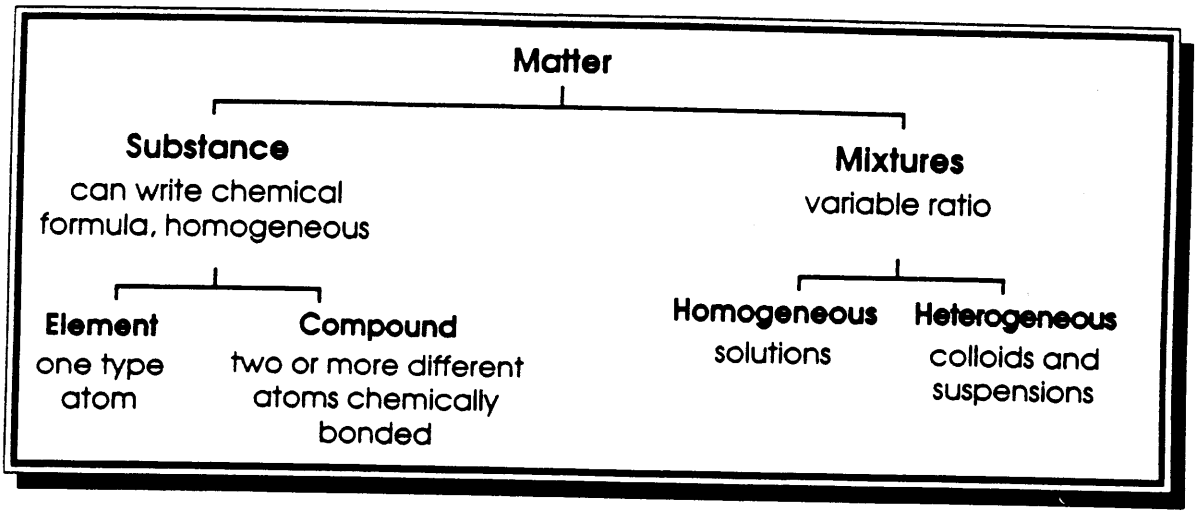
MATTER—SUBSTANCES VS. MIXTURES

Name _____

All matter can be classified as either a substance (element or compound) or a mixture (heterogeneous or homogeneous).



Classify each of the following as to whether it is a substance or a mixture. If it is a substance, write Element or Compound in the substance column. If it is a mixture, write Heterogeneous or Homogeneous in the mixture column.

Type of Matter	Substance	Mixture
1. chlorine		
2. water		
3. soil		
4. sugar water		
5. oxygen		
6. carbon dioxide		
7. rocky road ice cream		
8. alcohol		
9. pure air		
10. iron		

Name _____ Date _____ Class _____

CHAPTER 4 REVIEW ACTIVITY

Text Reference: Section 4-7

Properties

Recall that *physical properties* can be observed without producing new substances. *Chemical properties* describe how a substance interacts (or fails to interact) with other substances to produce new substances. *Extensive properties* depend upon the amount of matter in the sample; *intensive properties* do not.

Classify each of properties listed below as *extensive physical, intensive physical,* or *chemical.*

1. Color _____ 1.
2. Combustibility _____ 2.
3. Hardness _____ 3.
4. Density _____ 4.
5. Mass _____ 5.
6. Melting point _____ 6.
7. Ductility _____ 7.
8. Volume _____ 8.
9. Failure to react with other substances _____ 9.
10. Odor _____ 10.
11. Weight _____ 11.
12. Malleability _____ 12.
13. Tendency to corrode _____ 13.

Some of the measured properties of a given substance are listed below. Write the general name describing each property. Select the names from the properties listed for Exercises 1–13 above.

14. 15 dm^3 _____ 14.
15. Can easily be hammered into sheets. _____ 15.
16. 2.8 g/cm^3 _____ 16.
17. Burns when heated in the presence of O_2. _____ 17.
18. Stinks when heated. _____ 18.
19. Can be scratched by a diamond. _____ 19.
20. 500°C _____ 20.
21. Can easily be drawn into a wire. _____ 21.