## Chapter 2, 4 Study Guide: Matter, Elements, Compounds, and Mixtures

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1.	is a measure of the amount of matter in an object.
2.	is the amount of space occupied by an object.
3.	A is the curve at a liquid's surface.
4.	is anything that has mass and take up space.
5.	is the measure of the gravitational force on objects.
6.	is the tendency of matter to resist changes in motion.
7.	What units are best for describing the volume of mercury (liquid)?
8.	What units would you use to express the volume of an irregular solid such as a rock?
9.	Explain how you would measure the volume of an irregular solid such as a rock
10.	What equation would you use to find the volume of a rectangular box?

11. What physical property of matter describes the relationship between mass and volume?\_\_\_\_\_

12. Why is density considered a useful property for identifying matter?\_\_\_\_\_

- 13. What happens to a solid object with a density that is less than water when it is placed in water?\_\_\_\_\_\_
- 14. What unit of density is appropriate to use when describing a solid bar of silver?\_\_\_\_\_\_
- 15. If you poured three liquids (that do not mix completely) into a beaker, how could you tell which one is the densest liquid?\_\_\_\_\_
- 16. Explain why a bowling ball is much heavier than a soccer ball even though they are roughly the same size.

17. What is the density of water?\_\_\_\_\_\_

18. What is the density of an object that has a mass of 10 grams and a volume of 10 cubic centimeters? Work out the problem, show your work, and write your answer in the correct units. Will the object float or sink in water?

19. Why is the motion of a 150 g ball more difficult to change than the motion of a 50 g ball?\_\_\_\_\_

20.	During physical changes, matter always retains its
21.	What happens to matter during chemical changes?
22.	An element's ability to react with an acid is an example of a property.
23.	What chemical property is responsible for iron rusting?
24.	What type of change is melting crayons?
25.	What type of change is souring milk?
26.	How can you tell that baking a cake produces a chemical change?
27.	Why is molding clay considered a physical change?
28.	Why would dissolving salt in water be considered a physical change?
29.	After a tree is cut with a chain saw, it is impossible to put the tiny wood chips back together. The process cannot
	be reversed. Does this mean that cutting trees with a chain saw causes a chemical change in the wood? Explain
	why or why not
30.	What is an element?
31.	List characteristics of a metal
32.	List characteristics of a nonmetal
33.	List characteristics of a metalloid
34.	What is formed when two or more elements are joined chemically?
35.	If a spoonful of salt is mixed with water, what is the water called?
36.	What is formed when particles of two or more substances are distributed evenly among each other?
37.	What is the term that describes the ability for salt to dissolve in water?
38.	Give an example of an element
39.	Give an example of a compound
40.	Give an example of a solution
41.	Give an example of a colloid