Chapter 10 Study Guide

1. Know all the vocabulary on your flash cards!

2. Describe thermal contraction and thermal expansion. Give examples of each.

Thermal contraction is when things get smaller due to cooling of the matter. (Balloons shrink when you take them outside on a cold day)

Thermal expansion is when things get bigger due to heating of matter. (the plaque on science court)

3. What are some signs that a chemical change took place? gas forms, precipitate, change in color, tarnish

4. Describe the Law of Conservation of Mass. matter cannot be created or destroyed. Whatever mass you had at the beginning you should have at the end

5. State 5 examples or uses of acids and 5 examples or uses of bases.

Acids: orange juice, stomach acid, lemon juice, used to clean steel, vinegar

Bases: soap, making textiles, fertilizer, drain cleaner, medicines (antacids like Tums)

6. What type of ions are given off from acids? H+ From bases? OH-

7. What is neutralization? when and acid and base combine to produce a substance with a pH of 7

What type of products form from it? salts and water

8. What are electrolytes? a substance that forms ions when dissolved

9. What are indicators? substances that tell if something is an acid or base

10. Describe what happens to litmus paper in an acid or base.

acids turn blue litmus paper red

bases turn red litmus paper blue

11. Where would you find acids on the pH scale? 1-6 Bases? 8-14 Neutral? 7

12. What is the difference between a mixture and a compound? mixtures maintain their original chemical properties and just share space. Compounds are chemically combined and have new properties

13. What is sublimation? change of state from a solid to a gas without going through the liquid state

14. What is a physical change? a change in which matter does NOT interact with or change into other matter. cutting paper, slicing onions, boiling water .A chemical change? a change that involves matter that creates new substances different from the original. Burning something, rusting, baking a cake. Give examples of each.

15. What is an ion? an electrically charged atom

16. What is the melting point of water? 0 degrees the boiling point? 100 degrees (in Celsius)

17. How many hydrogen atoms are in a water molecule? H2O two

18. Describe changes of state

evaporation – matter moves from liquid to gas

condensation – matter goes from gas to liquid

freezing – liquid to solid

melting – solid to liquid

19. What are some examples of colloids? shaving cream, smoke, foam

20. What is the purpose of distillation? to separate mixtures using evaporation and condensation

21. What are some examples of alloys? steel and brass