Assignment 8-3, 8-4, 8-5

Name _____

Class Period _____

Date _____

1. What is a **synthesis reaction**?

_____

_____

2. Write the <u>equation</u> for a **synthesis reaction** on the line below.

_____

3. What is a **decomposition reaction**?

_____

_____

4. Write the <u>equation</u> for a **decomposition reaction** on the line below.

_____

5. What is a **single-replacement reaction**?

_____

_____

6. Write the <u>equation</u> for a **single-replacement reaction** on the line below.

_____

7. What is a **double-replacement reaction**?

_____

_____

8. Write the <u>equation</u> for a **double-replacement reaction** on the line below.

_____

9. Who discovered the element **oxygen**?

10. Describe the chemical reaction that led to the discovery of oxygen.

_____

_____

11. What type of reaction occurs when baking soda is mixed with vinegar?

12. Write the chemical formulas for baking soda and vinegar.

13. Describe the chemical reaction that allows us to get silver metal from a solution of silver nitrate.

_____

_____

Please continue on the other side.

14. What does the prefix *exo* mean? ▭

15. What does the prefix *endo* mean? ▭

16. Explain the difference between an exothermic reaction and an endothermic reaction.

_____

_____

17. Give two examples of chemical reactions that require extra **activation energy** to get started. (More than the energy available from a room temperature atmosphere.)

_____

_____

18. What is meant by the term **reaction rate**?

_____

19. Basing your answer on the *collision theory*, explain why the **concentration** of reactants affects the reaction rate.

_____

_____

20. Basing your answer on the *collision theory*, explain why the **amount of surface area** of reactants affects the reaction rate.

_____

_____

21. Basing your answer on the *collision theory*, explain why the **temperature** of reactants affects the reaction rate.

_____

_____

22. Explain how **catalysts** increase the reaction rate of chemical reactions.

_____

_____

23. What is the **greenhouse effect**?

_____

_____

24. How does carbon dioxide (CO_2) contribute to excess warming of our atmosphere?

_____

_____

25. According to your science text, how much carbon dioxide is released into the atmosphere every year?

_____

_____