Study Guide Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period:\_\_\_\_\_\_\_\_

Please define the following key terms.

1. Matter
2. Element
3. Compound
4. Mixture
5. Pure substances
6. Homogenous mixture
7. Heterogeneous mixture
8. Solutions
9. Solute (give an example)
10. Solution (give an example)
11. Physical property
12. Chemical property
13. Malleability
14. Ductility
15. Combustibility
16. Reactivity
17. Density
18. Melting/boiling point
19. Precipitate
20. Density
21. Law of Conservation of Matter (LOC)
22. Synthesis
23. Decomposition
24. Single replacement
25. Double replacement

Answer the following questions completely.

1. Describe the difference between substances (elements and compounds) and mixtures.
2. Describe the movement of particles in solid substances.
3. Describe the movement of particles in liquids.
4. Describe the movement of particles in gases.
5. Describe the movement of particles in plasma.
6. Explain 4 methods for dissolving a solute more quickly.
7. Explain what it means to increase or decrease the concentration of a solvent.
8. Identify several ways to determine if a chemical change has occurred.
9. Calculate the density of an object with a mass of 100g and a volume of 50 mL.
10. Illustrate or give an example of a single replacement reaction.
11. Illustrate or give an example of a double replacement reaction.
12. Illustrate or give an example of synthesis.
13. Illustrate or give an example of decomposition.
14. Explain the Law of Conservation of Matter in your own words.
15. Explain the LOC as it was demonstrated in the alka-seltzer closed and open container activity.