Name:_____
Date:_____ Period:_____

2.1 – Properties of Matter

1. What is matter?

2. The _____ of an object is a measure of the amount of matter the object contains.

3. What is volume?

4. What is the difference between an extensive property and an intensive property?

5. A physical property is a quality or condition of a substance that can be

_____ or _____ without changing the substance's

composition.

6. How can a physical property be used to tell the difference between two substances?

7. What are examples of physical properties?

8. What are the three states of matter?

1. 2. 3.

9. What is different about the atoms in the three different states of matter?

10. A physical change alters a given material without changing its chemical _____

11. List three examples of reversible and irreversible physical changes.

Reversible

1.

2.

3.

Irreversible

1.

2.

3.

2.2 – Mixtures

12. What is a mixture?

13. Are most samples of matter mixture?

14. List three examples of mixtures.

1.

2.

3.

15. What do the prefixes hetero- and homo- mean?

16. What is a heterogeneous mixture?

17. What is a homogeneous mixture?

18. What is a solution?

19. What is the difference between the processes of filtration and distillation?

20. Identify the following mixtures as homogeneous or heterogeneous.

    Kool-Aid –

    Salt and Pepper –

    Fruit Salad –

    Air –

2.3 – Elements and Compounds

21. What is an element?

22. What is a compound?

23. How are elements and compounds different?

24. What is a chemical change?

25. How are chemical changes different than physical changes?

26. How do the properties (chemical and physical) of a compound compare to the elements that make up the compound?

27. What is the difference between a mixture and a substance?

28. Where did the symbols for the elements on the periodic table come from?

29. The formula for glucose is $C_6H_{12}O_6$. How many atoms of Carbon (C) are in the molecule? Hydrogen (H)? Oxygen (O)?

2.4 – Chemical Reactions

30. What happens during a chemical reaction?

31. Circle the correct representation of a chemical reaction.

Products → Reactants Reactants → Products

32. What are four clues that a chemical reaction is occurring?

1.

2.

3.

4.

33. What is a precipitate?

34. What happens to the mass of the reactants in a chemical reaction?

35. Mass is neither _____ nor _____.

36. Number 35 is the definition of what scientific law?