

Introduction to Matter Study Guide

1. What is matter? _____
2. Table salt and water are examples of _____.
3. Texture and color are examples of _____ properties of matter.
4. Is heating a liquid and measuring the temperature at which it boils a physical or chemical property? _____
5. Is describing methane as a gas that easily catches fire a physical or chemical property? _____
6. All elements are made of basic particles called _____.
7. What holds atoms together in a molecule? _____
8. A _____ is a group of two or more atoms that are held together by chemical bonds.
9. A _____ is a substance formed from two or more elements that are chemically combined in a set ratio.
10. CO_2 and H_2O are examples of chemical _____.
11. Soil, ketchup, and salt water are all examples of _____.
12. A _____ is formed when two or more substances are so evenly mixed that you can't see the different parts.
13. In a _____ mixture, like a salad, you can see the different parts.
14. What is the SI unit for mass? _____
15. Liter, milliliter, and cubic centimeter are all units to measure _____.
16. In a lab, volumes of liquid are usually measured with a _____.
17. How do you find the volume of an irregular object? _____
18. What is the measurement of how much mass is contained in a given volume called? _____
19. How do you calculate the density of an object? _____
20. What is the density of an object with a volume of 3cm^3 and a mass of 15g ? _____
21. A marble sinks in a glass of water because its _____ is greater than that of water.
22. If silver (10.5 g/cm^3) and lead (11.3 g/cm^3) each had volumes of 1cm^3 , which would have a greater mass and why? _____

23. If gasoline (0.7 g/cm^3) is poured carefully into liquid water (1.0 g/cm^3), will it sink or float and why?

24. How are liquid water, ice, and water vapor different? _____

25. Is dissolving sugar in water a physical or chemical change? _____

26. Is burning wood a physical or chemical change? _____

27. Is tarnishing metal a physical or chemical change? _____

28. Is dissolving salt in water a physical or chemical change? _____

29. What is the law of conservation of mass? _____

30. _____ energy is the total energy of all the particles in an object.

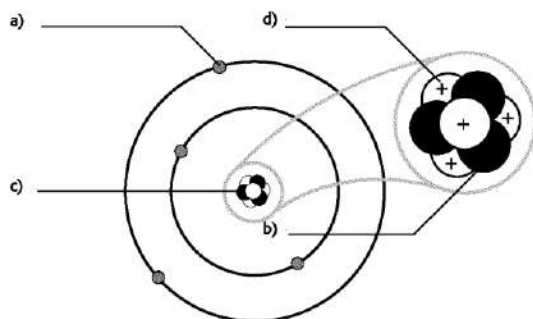
31. Would ice absorbing energy and melting be an endothermic or exothermic change? _____

32. Would fireworks exploding and giving off light be an endothermic or exothermic change? _____

33. What is a positively charged particle? _____

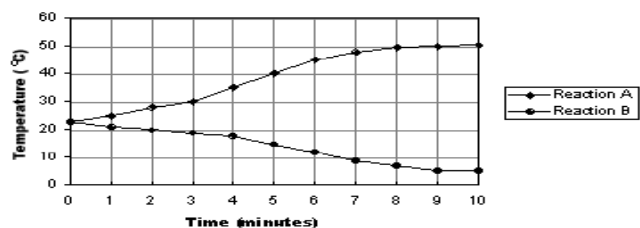
34. What is a negatively charged particle? _____

35. What is an uncharged particle? _____



36. Which letter is the negatively charged particle? _____ 37. Which letter is the positively charged particle? _____

38. Which letter are the particles with no charge? _____ 39. Which letter refers to the dense center of the atom? _____



40. Which reaction is exothermic? Explain. _____

***You must also have the symbols for the first twenty elements on the periodic table memorized.