

MATTER VOCABULARY

1. Atom	The basic particle from which all elements are made; smallest unit of matter
2. Element	A pure substance that cannot be broken down into any other substances by chemical or physical means; made of the same kind of atoms
3. Matter	Anything that has mass and takes up space; has mass and volume
4. Volume	The amount of space that something takes up
5. Density	The amount of matter in a given space; $D=m/v$
6. Mass	A measure of the amount of matter; A quantity of matter
7. Subatomic Particles	The particles found inside an atom (protons & neutrons in nucleus & electrons in outer shell)
8. Molecules	Made of at least 2 atoms that are chemically combined (can be same atoms)
9. Compound	A substance made of two or more different elements that are chemically combined
10. Physical Properties	Characteristics of matter such as mass, volume, density, color, conductivity, solubility etc.
11. Chemical Properties	Characteristics of matter that describe how a substance can change into a new substance (flammability, oxidation etc.)
12. Plasma	A super-heated gas; found in stars including our sun and in lightening
13. Bose-Einstein Condensate (Absolute Zero)	A theoretical phase of matter at which all molecular vibrations would stop (-273°C) (0°K) (-459°F)
14. Solid	A relatively dense state of matter; atoms relatively fixed; definite volume and shape; least amount of kinetic energy
15. Liquid	State of matter that takes shape of container; atoms slide past each other; "medium" amount of kinetic energy
16. Gas	State of matter that expands to fill container; atoms not attracted to one another; atoms move freely and apart; "most" amount of kinetic energy
17. Periodic Table of Elements	Chart which contains elements in order based upon number of protons in nucleus; categorized also according to chemical and physical properties
18. Evaporation (Vaporization)	Process where liquid changes to a gas when heat energy is added
19. Deposition	Process where gas changes to solid when heat energy is removed from gas (frost)
20. Sublimation	Process where solid changes into a gas when heat energy is added (dry ice)
21. Melting	Process where a solid changes to liquid when energy is added
22. Freezing	Change from liquid to solid when energy is removed
23. Condensation	When a gas changes to a liquid (heat energy removed)
24. Solvent	A substance like water which causes solids to dissolve
25. Solute	The substance that gets dissolved; the substance that is dissolved in a solution or mixture; the gobstopper, salt, or sugar
26. Physical Change	A change which takes place without any changes in molecular composition; is reversible; no new substance is formed
27. Chemical Change	A change that occurs when atoms come apart chemically and recombine to form a <i>new substance</i>
28. Mixture	A combination of two or more substances that are not chemically bonded
29. Homogeneous Mixture	Mixture where particles are distributed evenly throughout; if cut in half, both halves are the same
30. Heterogeneous Mixture	Mixture where particles are not distributed evenly throughout; if cut in half, both halves would be different
31. Solution	A homogeneous mixture with particles smaller than 2 nm; particles cannot be filtered out (saline)
32. Colloid	A homogeneous mixture with particles 2nm – 500 nm; particles cannot be filtered out; opaque
33. Suspension	A heterogeneous mixture that has particles larger than 500 nm; particles settle to bottom of container in time
34. Law of Conservation of Mass and Energy	The scientific principle that states that there is no change in total mass during a chemical change. Matter is not created nor destroyed (just rearranged)

Highlighted words ----on the test Fri 2/17/17 Pink words know for Test on 2/24/17 remaining words ---know for a future assessment

