

1. Acid	A substance that tastes sour, reacts with metals and carbonates, and turns blue litmus red	23. Law of Conservation of Mass	Matter is not created nor destroyed in any chemical or physical change
2. Activation Energy	Energy needed to get a reaction started	24. Litmus	A mixture of plant compounds used as a chemical indicator
3. Alpha Decay	A nuclear reaction in which a nucleus ejects an alpha particle	25. Neutralization Reaction	An acid and base react to produce a salt and water
4. Alpha Particle	a helium nucleus emitted by some radioactive substances	26. Nuclear Fission	The splitting of an atom's nucleus into smaller nuclei
5. Base	A substance that tastes bitter, feel slippery, and turn red litmus blue	27. Nuclear Fusion	A reaction that occurs when lighter nuclei are forced together to produce heavier nuclei
6. Beta Decay	Radioactive decay in which an electron is emitted.	28. pH	A measure of how acidic or basic a solution is
7. Beta Particle	A fast-moving electron that is given off as nuclear radiation	29. pH Scale	A range of values from 0-14 used to express the concentration of hydrogen ions in a solution
8. Chain Reaction	Reaction in which the material that starts the reaction is also one of the products and can start another reaction	30. Product	A substance produced in a chemical reaction
9. Chemical Equation	A way to describe a chemical reaction using chemical formulas and other symbols	31. Radioactive Decay	The breakdown of a radioactive element, releasing particles and energy
10. Chemical Reaction	A change in which one or more substances are converted into new substances	32. Radioisotopes	(aka radionuclide) Isotopes that have unstable nuclei and undergo radioactive decay
11. Coefficient	A number placed in front of a chemical formula in an equation	33. Reactant	A chemical substance that is present at the start of a chemical reaction
12. Combustion	A rapid reaction between oxygen and fuel that results in a release of energy	34. Salt	Any ionic compound that can be made from the neutralization of an acid with a base
13. Critical Mass	The smallest possible mass of a fissionable material that can sustain a chain reaction	35. Single Replacement	One element replaces another element in a compound
14. Decomposition	A chemical reaction that breaks down compounds into simpler products.	36. Synthesis	Combining of small molecules or substances into larger, more complex ones
15. Double Replacement	A chemical change involving an exchange of negative ions between two compounds		
16. Endothermic Reaction	A reaction in which energy is absorbed		
17. Exothermic Reaction	A reaction that releases energy in the form of heat		
18. Gamma Decay	The release of gamma rays from a nucleus		
19. Gamma Ray	High-energy radiation that has no electrical charge and no mass		
20. Half-Life	Length of time required for half of the radioactive atoms in a sample to decay		
21. Hydroxide Ion	the OH ⁻ ion		
22. Indicator	A compound that changes color when in contact with an acid or a base		