**Atomic Structure / Unit 2**

**Vocabulary to Know**

1. Mass: Quantity of matter in an object
2. Matter: anything that has mass
3. Volume: the Space an object occupies
4. Weight: Force produced by gravity acting on mass
5. Atom: Smallest unit of an element, that maintains the properties of that element
6. Element: can’t be separated or broken down into simpler substance by chemical means.
7. Compound: substance made of two or more elements
8. Mixture: a combination of two or more substance that are not chemically combined.
9. Homogeneous: something that has a uniform structure or composition, like sugar mixed in water.
10. Heterogeneous: composed or dissimilar components , like sand and water.
11. Pure Substance: a sample of matter, a single element or a single compound that has definite chemical and physical properties.
12. Molecule: 2 or more atoms that carry all the physical and chemical properties of that substance.
13. Endothermic: absorbs energy
14. Exothermic : releases energy
15. Physical property :property that can be determined without changing the nature of the substance
16. Chemical property: a property of matter that describes the substance ability to participate in a chemical reaction and change,
17. Accuracy: how close the measurement is to the true actual value
18. Precision: how close the measurements are to each other
19. Evaporation: change of substance from liquid to gas
20. LAW OF CONSERVATION OF ENERGY: energy cannot be created nor destroyed but can change from one form to another.
21. Specific heat: the quantity of heat required to raise a unit mass of homogenous material 1K or 1C under constant pressure and volume.
22. Law of Conservation of mass: mass cannot be created or destroyed in ordinary chemical and physical changes.
23. Law of Definite proportions: chemical compounds always contain the same elements in exactly the same proportions by weight or mass.
24. Law of multiple proportions: when two elements combine to form two or more compounds, the mass of one element that combines with a given mass of the other is in the ratio of small whole numbers.
25. Atomic number: the number of protons in the nucleus of an atom.
26. Mass number: the sum of the number of protons + neutrons
27. Isotopes: an atom that has the same number of protons but different neutrons