

UNIT 2 VOCABULARY TERMS

Lesson 1

- 1. ATOMS-** *The basic building block of matter. The smallest unit of an element. **Example on diagram below.***
- 2. PROTONS-** *Particles that have a positive charge and are found inside the nucleus of an atom. **Example on diagram below***
- 3. NEUTRONS-** *Particles that have a neutral charge and are found inside the nucleus of an atom. **Example on diagram below***
- 4. ELECTRONS-** *Very small negatively charged particles that move around the nucleus of an atom. **Example on diagram below.***
- 5. ELEMENT-** *A substance that is made up of one type of atom. **example-The periodic table is made of elements***
- 6. ATOMIC NUMBER-** *The atomic number of an element is the number of protons in the nucleus of one of its atoms. (ex. **The atom of aluminum contains 13 protons, so its atomic number is 13**)*

7. CHEMICAL SYMBOL- An abbreviation that represents an element. The first letter is always capitalized, and the remaining letters are always lowercase. **Example- H is Hydrogen or Fe is Iron**

Lesson 2

8. Chemical bond- An interaction (electrical force) that holds atoms together. (example. Water, table salt) **3 types.**

9. Ionic bond- An attractive force between ions with opposite charges. This bond forms when electrons are transferred from metal to non-metal atoms. *They have **high melting points**, often brittle. **example-Fluorite**

10. Covalent bond- Type of bond that forms between 2 **nonmetals**. Forms when 2 atoms share electrons. Low melting point and have low electrical conductivity. **Example-water molecule**, some gases at room temp.

11. Metallic bond- Forms due to the attraction between metal ions and the free electrons around them. **Good **conductors** of electric current. **Example-copper**

Lesson 3

12. **Chemical reaction**- process in which atoms are rearranged to produce a new substance. **Example- spoiled milk**

13. **Chemical formula**- uses chemical symbols and numbers to represent a given substance. ***example-H₂O formula for water**

14. **Chemical equation**- An expression that uses symbols to show the relationship between the starting substances and the substances that are produced by a chemical reaction. ***Example-C + O₂ YIELDS CO₂**

15. **Reactant**- The substances that participate in a chemical reaction. Written on the left of the chemical formula. **example-C + O₂ above**

16. **Product**- The substances formed in a reaction. Written on the right of the chemical formula. **example-CO₂ above.**

17. **Law of conservation of mass** states that matter is neither created nor destroyed in ordinary physical and chemical changes. ***When balancing an equation the same amount of elements on both sides of the equation. example-H + 2O yields H₂O**

18. Endothermic reaction- requires an input of energy. Absorbs energy. **Example- photosynthesis**

19. Exothermic reaction- When energy is released to the surroundings. **Example- heat and light from a glowing candle**

20. Law of conservation of energy- States that energy cannot be created nor destroyed. However it can change forms. **example-Potential energy to kinetic energy when rolling a bowling ball to hit pins.**



