Topic 1 Vocab Review NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  | **Definition** | **Diagrams, analogies, questions, or notes** |
| --- | --- | --- |
| **Solubility** | How well it dissolves. |  |
| **Thermal conductivity** | How well heat travels through it. |  |
| **Electrical conductivity** | How well electric charges travel through it. |  |
| **Melting point** | The temperature it turns from solid to liquid (or liquid to solid). |  |
| **Boiling point** | The temperature it turns from liquid to gas (or gas to liquid). |  |
| **Nanomaterials** | Substances with particles in the size range 1-100 nm. |  |
| **Filtration** | Separates a solid (not dissolved) from a liquid by passing through a filter (blocks the solid). |  |
| **Distillation** | Separates liquids which have different boiling points by heating to the correct temperature. |  |
| **Evaporation** | Separates solid (dissolved) from a liquid by heating until the liquid evaporates leaving the solid behind. |  |
| **Atoms** | Electrons orbiting a nucleus containing protons and neutrons. |  |
| **Emission spectra** | Bright lines of colour produced by heating or electrifying a gas. Provides evidence of energy levels. |  |
| **Absorption spectra** | Dark lines on a rainbow produced by shining light through a gas. Provides evidence of energy levels. |  |
| **Atomic number** | Defines the element. The number of protons in an atom. |  |
| **Mass number** | The number of protons plus neutrons in an atom. |  |
| **Subatomic particles** | Protons (+ charge), neutrons (neutral), and electrons (- charge). |  |
| **Isotopes** | Variations of an element (same atomic number) with different mass (number of neutrons) |  |
| **Electron configuration (using subshell notation)** | The arrangement of the electrons around the atom, given by amount in each block for each row. |  |
| **Mole unit** | Always the same number of particles. One mole has the mass (in g) given on the periodic table. |  |
| **Molar mass** | The mass (in g) of one mole of a substance. Represented by the letter *M*. |  |
| **Relative atomic mass** | The mass of all isotopes averaged together (multiply each mass by percentage and then add). |  |
| **Atomic radius** | Distance from the centre to the outermost electron shell. |  |
| **Valency** | Number of electrons given or taken during reactions. |  |
| **Electronegativity** | How well the element attracts electrons during bonding. |  |
| **Periods** | The horizontal rows in the periodic table. Represents electron shells in the atom. |  |
| **Groups** | The vertical columns in the periodic table. Represents number of valence electrons. |  |
| **Metallic character** | Tends to give electrons during reactions. |  |
| **Non-metallic character** | Tends to take electrons during reactions. |  |
| **Blocks** | Sections of the periodic table: s, p, d, and f. |  |