

## Curriculum Map: 2023-2024

Teacher: Mr. Knigge

Subject: Physical Science

| <b>MONTH</b>                | <b>UNIT</b>                                 | <b>Lessons or skills covered</b>  |
|-----------------------------|---|---|
| <b>August</b>               | <b>Intro to Physical Science/Lab Skills</b> | <b>Students will be introduced to the scientific method, problem solving skills, using laboratory equipment, and lab safety.</b>  |
| <b>September</b>            | <b>Foundations of Chemistry</b>             | <b>Classifying matter, physical properties, physical changes, chemical properties, chemical changes, the states of matter, changes in states of matter, behavior of gases</b>                                       |
| <b>October And November</b> | <b>Properties of Matter</b>                 | <b>Discovering the parts of the atom, how atoms differ, using the periodic table, metals v nonmetals, valence electrons and their importance, chemical bonding (ionic v covalent)</b>                               |
| <b>December</b>             | <b>Chemical Reactions &amp; Equations</b>   | <b>Understanding chemical reactions, types of chemical reactions, fundamentals of chemical equations, balancing chemical equations, law of conservation of mass</b>   |
| <b>January And February</b> | <b>Motion &amp; Forces</b>                  | <b>Position and motion, speed and velocity, graphing d vs t and s vs t, calculating speed, gravity and friction, Newton's 3 Law of Motion, work and power, simple machines, pressure and density of fluids</b>      |
| <b>March</b>                | <b>Energy &amp; Matter</b>                  | <b>Forms of energy, energy transformation, energy resources, thermal energy, temperature, heat, thermal energy transfers</b>  |
| <b>April</b>                | <b>Waves</b>                                | <b>Wave properties, wave interactions, producing and detecting sound, using sound waves, electromagnetic radiation, the electromagnetic spectrum, light and color, reflection and mirrors</b>                       |
| <b>May</b>                  | <b>Electricity &amp; Magnetism</b>          | <b>Electric charge and forces, electric current, simple circuits (parallel v series), voltage, resistance, magnets, magnetic fields, making magnets with electric current, making electric current with magnets</b> |