

## High School Science – Curriculum Overview

	<b>Chemistry</b>	<b>Anatomy</b>	<b>Environmental Science</b>	<b>Physics</b>	<b>Biology</b>
<b>Quarter 1</b>	<ul style="list-style-type: none"> <li>▪ Physical and chemical properties and changes</li> <li>▪ Navigating the periodic table</li> <li>▪ Mass-mole-particle conversions</li> <li>▪ Significant figures, scientific notation and factor label method</li> <li>▪ Electron configurations and periodicity</li> </ul>	<ul style="list-style-type: none"> <li>▪ Organ Systems and body regions</li> <li>▪ Histology</li> <li>▪ Integumentary System</li> <li>▪ Skeletal system</li> <li>▪ Joints</li> </ul>	<ul style="list-style-type: none"> <li>▪ Environmental Science from a Biblical World View</li> <li>▪ Serve God Save the Planet</li> <li>▪ Sustainability</li> <li>▪ Ecosystems and how they change</li> <li>▪ Natural cycles in the environment</li> </ul>	<p><b><u>Classical Mechanics</u></b></p> <ul style="list-style-type: none"> <li>▪ Kinematics in one dimension</li> <li>▪ Kinematics in two dimensions; vectors</li> <li>▪ Dynamics; Newton’s laws of motion</li> </ul>	<ul style="list-style-type: none"> <li>▪ Themes of Biology</li> <li>▪ The Scientific Method</li> <li>▪ Microscopy</li> <li>▪ Composition of Matter</li> <li>▪ Solutions</li> <li>▪ Biochemistry</li> <li>▪ Introduction to Animals</li> </ul>
<b>Quarter 2</b>	<ul style="list-style-type: none"> <li>▪ Writing chemical formulas</li> <li>▪ Structural formula</li> <li>▪ Reaction types and Balancing equations</li> <li>▪ Calculating molar mass, % composition and empirical formulas</li> <li>▪ Stoichiometry</li> </ul>	<ul style="list-style-type: none"> <li>▪ Muscular System</li> <li>▪ General Viscera overview</li> <li>▪ Cat Dissection</li> <li>▪ Nervous system</li> <li>▪ Research Paper on disease</li> </ul>	<ul style="list-style-type: none"> <li>▪ Human Population and Development</li> <li>▪ Water and Human Use</li> <li>▪ Soil and conservation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Circular Motion; Gravitation</li> <li>▪ Work and Energy</li> <li>▪ Linear Momentum</li> </ul>	<ul style="list-style-type: none"> <li>▪ Sponges, Cnidarians, and Ctenophores</li> <li>▪ Flatworms, Roundworms, and Rotifers</li> <li>▪ Mollusks and Annelids</li> <li>▪ Arthropods</li> <li>▪ Insects</li> <li>▪ Echinoderms and Invertebrate Chordates</li> <li>▪ Fishes</li> <li>▪ Amphibians</li> <li>▪ Reptiles</li> <li>▪ Birds</li> <li>▪ Mammals</li> </ul>
<b>Quarter 3</b>	<ul style="list-style-type: none"> <li>▪ Particle behavior and phases of matter</li> <li>▪ Gas Laws</li> <li>▪ Solubility and Molarity</li> <li>▪ Precipitates</li> <li>▪ Acid Base Reactions and titration</li> </ul>	<ul style="list-style-type: none"> <li>▪ Somatic and Special Senses</li> <li>▪ Eye Dissection</li> <li>▪ Circulatory system</li> <li>▪ Heart Dissection</li> <li>▪ Blood and lymph</li> <li>▪ Respiratory system</li> </ul>	<ul style="list-style-type: none"> <li>▪ Production and distribution of food</li> <li>▪ Hunger, malnutrition and famine</li> <li>▪ Wild Species and Biodiversity</li> <li>▪ Ecosystem Capital</li> <li>▪ Atmosphere</li> </ul>	<ul style="list-style-type: none"> <li>▪ Rotational Motion</li> </ul> <p><b><u>Thermodynamics</u></b></p> <ul style="list-style-type: none"> <li>▪ Temperature and Kinetic Theory</li> <li>▪ Heat</li> <li>▪ The Laws of Thermodynamics</li> </ul>	<ul style="list-style-type: none"> <li>▪ Structure and Function of Cells</li> <li>▪ Homeostasis</li> <li>▪ Diffusion</li> <li>▪ Osmosis</li> <li>▪ Photosynthesis</li> <li>▪ Cellular Respiration</li> <li>▪ Cell Reproduction</li> <li>▪ Genetics</li> </ul>
<b>Quarter 4</b>	<ul style="list-style-type: none"> <li>▪ Thermochemistry</li> <li>▪ Equilibrium</li> <li>▪ Redox Reactions</li> <li>▪ Carbon chemistry</li> <li>▪ Radioactivity</li> </ul>	<ul style="list-style-type: none"> <li>▪ Digestion</li> <li>▪ Urinary System</li> <li>▪ Reproduction and pregnancy</li> <li>▪ Endocrine system</li> <li>▪ Oral report on health care career</li> </ul>	<ul style="list-style-type: none"> <li>▪ Atmosphere and Global Climate Change</li> <li>▪ Atmospheric Pollution</li> <li>▪ Water Pollution</li> <li>▪ Municipal Solid Waste</li> <li>▪ Renewable Energy and Alternative Energy sources</li> </ul>	<p><b><u>Vibrations and Waves</u></b></p> <ul style="list-style-type: none"> <li>▪ Harmonic Motion</li> <li>▪ Sound</li> </ul> <p><b><u>Electromagnetics</u></b></p> <ul style="list-style-type: none"> <li>▪ Electric charge and electric field</li> <li>▪ Electric potential</li> <li>▪ Electric currents</li> </ul>	<ul style="list-style-type: none"> <li>▪ Origins / Creation</li> <li>▪ Natural Selection</li> <li>▪ Taxonomy</li> <li>▪ Population Ecology</li> <li>▪ Community Ecology</li> <li>▪ Microbiology (Bacteria and Viruses)</li> <li>▪ Plant Structure and Function</li> <li>▪ Human Biology</li> </ul>