High School Science Curriculum Guide: 2021-2022

Grade	
9th	**Earth/Physical Science:** • How can one explain the structure and properties of matter? • How do substances combine or change to make new substances? • How do people reconstruct and date events in Earth's planetary history? • How can one explain and predict interactions between objects and within systems of objects? • How is energy transferred and conserved? • How are waves used to transfer energy and send and store information?
10th	**Biology:** • How do organisms live and grow? • How and why do organisms interact with their environment, and what are the effects of these interactions? • How are characteristics of one generation passed to the next? • How can individuals of the same species and even siblings have different characteristics? • What evidence shows that different species are related? **Biology (Primary Curriculum):** InquiryHUB (iHUB) curriculum: • Ecosystems: How do small changes make big impacts on ecosystems? • Genetics & Heredity: How can science help make our lives better? • Evolution: How do populations change over time? **Biology (Optional Supplemental Curriculum):** Science and Global Issues (SGI) curriculum: • Ecology: Living on Earth • Cell Biology: World Health • Genetics: Feeding the World • Evolution: Maintaining Diversity
11th	**Chemistry:** • Science of chemistry • Matter and atoms • Temperature energy and heat • Physical and chemical change • Structure of the atom • Elements and the periodic table • Bonding • Compounds and molecules • Water and solutions • Chemical reactions • Stoichiometry • Reactions rates and equilibrium • Acids and bases • Properties of gases
12th	**Physics:** • Physics Toolkit • Representing Motion (velocity) • Accelerated Motion • Forces in 1 dimension • Forces in 2 dimensions (friction) • Motion in 2 dimensions • Gravitation • Rotational Motion • Momentum and its conservation • Energy and Work

*iHUB Curricular Units may be taught in a different sequence as a result of piloting logistics.