

**2025 - 2026 St. James Episcopal School Curriculum Map
Middle School Science**

Quarter	5 th Grade - Earth & Space	6 th Grade - IPC (A)	7 th Grade - IPC (B)	8 th Grade - Biology
1 st	Science Safety and Scientific Processes Modeling Earth's Systems A. Spheres of Earth B. Modeling Earth's Interacting Spheres	Science Safety and Scientific Processes Contact Forces A. Motion B. Contact Forces C. Collisions D. Newton's Laws of Motion	Science Safety and Scientific Processes Investigating Matter A. Properties of Matter B. Structure of Matter C. Language of Chemistry D. Physical & Chemical Properties	Science Safety and Scientific Processes Cell Structure and Biochemistry A. Prokaryotic and Eukaryotic Cells B. Biomolecules C. Cellular transport D. Viruses
2 nd	Plate Tectonics and Rock Cycling A. Layered Structure of the Earth B. Earth's Changes over Time C. Plate Tectonics D. Evidence of Plate Tectonics Weather, Climate and Water Cycling A. Weather B. Climate C. The Water Cycle	Forces at a Distance A. Non-Contact Forces B. Magnetism and Electricity C. Gravity Sound Waves A. Sound B. Sound waves	Chemical Reactions in Matter A. Matter in Chemical Reactions B. Atoms, Elements and Compounds C. Chemical Bonds Chemical Reactions and Energy A. Chemical Reactions and Energy B. Using Energy of Chemical Reactions C. Physical and Chemical Changes	Organism Growth and Cell Differentiation A. Cell Cycle B. Cell Differentiation Mechanisms of Genetics A. DNA B. Gene Expression C. Mutations Heredity and Diversity A. Genetic Diversity
3 rd	Protecting Earth's Resources A. Earth's Water B. Earth's Air C. Earth's Land D. Ecosystems Natural Hazards A. Landslides and Floods B. Hazardous Weather Conditions C. Earthquakes and Volcanoes	Light and Matter A. Light and Matter B. Electromagnetic Waves C. Characteristics of Light Thermal Energy A. Energy B. Thermal Energy C. Thermal Energy and Currents	Metabolic Reactions A. Humans and Food B. Energy for Life C. Acids and Bases Matter Cycling A. Matter and Energy in Ecosystems B. Cycles in Nature	Interactions among Biological Systems A. Animal Structure and Function B. Plant Structure and Function Energy Conversions in Organisms A. Cellular Respiration B. Photosynthesis Interdependence and Ecosystem Stability A. Ecological relationships B. Cycling of Matter in Ecosystems
4 th	Astronomy: Space Systems A. Introduction to Astronomy B. Evidence of Earth's Movements C. Stars D. Gravity Human Body Systems A. Circulatory System B. Respiratory System	Earth in Space A. Earth, Moon, sun B. Solar Systems C. Stars and Galaxies Earth's Resources and Human Impact A. Natural Resources B. Environmental Protection Human Body Systems A. Skeletal System B. Muscular System	Ecosystems Dynamics A. Ecosystems B. Changes in Ecosystems Human Body Systems A. Digestive System B. Nervous System	Evolutionary Theory and Mechanisms A. Evolution B. Natural Selection Human Body Systems A. Endocrine System B. Reproductive System