

JSD High School Science Curriculum Scope and Sequence

	Life	Earth	Physical	Alaska Sea and Rivers
<p>Grades 9/10</p> <p>Physical Science Course (P)</p> <p>Biology Course (B)</p>	<p>Flow of Matter and Energy in Ecosystems - B Carbon and nitrogen cycles, ecological relationships, population dynamics, impacts of change,</p> <p>Cells -B Theories, components, structures</p> <p>Diversity of Life -B Structure and function, behavior, development, life cycles, taxonomy</p> <p>Changes in Life Forms over Time-B Genetics, Heredity, Natural Selection</p>	<p>Cycles in the Solar System-P <i>Tides, aurora, coriolis force</i></p> <p>Human Impact on Climate - P <i>Causes, effects, prevention, mitigation</i></p> <p>Origin and Evolution of the Universe - P <i>Changes over time, Big Bang theory, characteristics</i></p> <p>Geochemical Cycles - B <i>Water, carbon, oxygen, nitrogen</i></p> <p>Dynamics of Earth's Surface-B Plate Tectonic Theory</p>	<p>Structure and Properties of Matter -P <i>Atomic structure, periodic table</i></p> <p>Changes and Interactions in Matter- P <i>Chemical and nuclear reactions</i></p> <p>Forces of Nature- P <i>Gravity, magnetism, electricity, electromagnetic radiation</i></p> <p>Forces and Motion - P <i>Laws of motion, momentum, work, friction, centripetal force, wave motion</i></p> <p>Energy - P <i>Transfer, conservation, transformation, kinetic/atomic theory, entropy</i></p>	<p>No Alaska Seas and Rivers Curriculum for grades 9-12.</p> <p>Science and the Local Environment -P, B <i>-applications of scientific concepts</i></p>
<p>Grades 11-12</p> <p>Possible Electives</p>	<p>Sportsman's Biology</p> <p>Human Anatomy and Physiology</p> <p>Health Careers</p> <p>Natural Resource Management</p> <p>AP Biology</p>	<p>Oceanography</p>		<p>Chemistry</p> <p>Physics</p> <p>AP Chemistry</p> <p>AP Physics</p>

The 9th/10th grade science curriculum has traditionally consisted of one year of physical science (required) and one year of Biology (required). With the advent of a new school and academy programs, the 9th/10th grade content may be structured in new ways.