**Disciplinary Core Ideas in the Science Standards for Alaska**

Disciplinary Core Ideas are the fundamental ideas necessary for understanding a given science discipline. The core ideas all have broad importance within or across science or engineering disciplines, provide a key tool for understanding or investigating complex ideas and solving problems, relate to societal or personal concerns, and can be taught over multiple grade levels at progressive levels of depth and complexity.

Disciplinary ideas are grouped in four domains: physical science; life science; earth and space science; and engineering, technology and applications of science.

**Physical Science:**Students learn about the physical and chemical subprocesses that regulate systems. This includes the study of matter and its interactions, chemistry, nuclear processes, motion and stability, forces, energy, waves, radiation, and the application of technology.

**Life Science:**Students learn about the patterns, processes, and relationships of living organisms. This includes a study of structure and function, organismal growth, biological organization, interactions, cycling of energy and matter, ecosystems, heredity, and evolution.

**Earth and Space Science:**Students investigate the processes that operate on the Earth and address its place in the solar system and galaxy. This includes studying the universe, solar system, Earth, geology, hydrology, weather, and human impacts.

**Engineering, Technology, and Application of Science:**Students focus on developing an understanding of engineering practices to help inform the acquisition and application of scientific knowledge. This includes defining and delimiting problems, developing solutions, and refining solutions.