**Science Standards for Alaska: What are Disciplinary Core Ideas (DCIs)?**

DCIs are the fundamental ideas that are 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.[[1]](#footnote-1)

Disciplinary core ideas have the power to focus K–12 science curriculum, instruction, and assessments on the most important aspects of science. To be considered core, the ideas should meet at least two of the following criteria and ideally all four:

* Have broad importance across multiple sciences or engineering disciplines or be a key organizing concept of a single discipline;
* Provide a key tool for understanding or investigating more complex ideas and solving problems;
* Relate to the interests and life experiences of students or be connected to societal or personal concerns that require scientific or technological knowledge;
* Be teachable and learnable over multiple grades at increasing levels of depth and sophistication.

Disciplinary ideas are grouped in four domains: the physical sciences; the life sciences; the earth and space sciences; and engineering, technology and applications of science.[[2]](#footnote-2)

1. Achieve. Please visit website: [Next Generation Science Standards Glossary and Disciplinary Core Idea](https://www.nextgenscience.org/glossary/disciplinary-core-idea-dci) [↑](#footnote-ref-1)
2. National Science Teachers’ Association. Please visit website: [Next Generation Science Standards Disciplinary Core Idea](https://ngss.nsta.org/DisciplinaryCoreIdeasTop.aspx) [↑](#footnote-ref-2)