

DECoSTE Coherent Core

The Coherent Core identifies four key characteristics of science instruction that support coherence from students' perspective. These characteristics guide the design and implementation of coherent science instruction as well as the development of tools for planning and reflecting upon coherent science instruction.



Big Ideas

Instruction emphasizes a small set of powerful science principles. Ideas, terms, and details not necessary for the phenomenon under investigation are avoided.



Phenomena

Learning is situated within explorations of rich phenomena/problems that elicit and sustain student interest. These require at least several lessons to explore.



Knowledge-in-use

Students collaboratively engage in science practices as they use science ideas to make sense of phenomena under investigation.



Need-to-know

New ideas are introduced only when learners perceive that new learning is required in order to make sense of the phenomenon under investigation.

