

Alignment of Unit Cells and Crystal Structures Module to the Next Generation Science Standards

The Next Generation Science Standards (NGSS) were published in April 2013. They consist of statements that convey the performance expectations for students. Each performance expectation is a single statement that is built from three parts: science and engineering practices (Practices), disciplinary core ideas (DCI) and crosscutting concepts.

The background material, reading, and the slides from the module address the aspects of the NGSS shown in Table 1.

TABLE 1. ALIGNED PRACTICES, DISCIPLINARY CORE IDEAS, AND CROSSCUTTING CONCEPTS

PRACTICE	DCI	CROSSCUTTING CONCEPT
<p><i>MS Analyzing and Interpreting Data: Analyze and interpret data to determine similarities and differences in findings.</i></p> <p><i>Partial in student materials</i></p>	<p><i>MS.PS1-A: Solids may be formed from molecules, or they may be extended structures with repeating subunits (e.g., crystals).</i></p> <p><i>Strong in teacher and student materials</i></p>	<p><i>MS Structure and Function: Structures can be designed to serve particular functions by taking into account properties of different materials, and how materials can be shaped and used.</i></p> <p><i>Strong in teacher and student materials</i></p>