ILLINOIS STATE BOARD OF EDUCATION

SCIENCE HIGH SCHOOL

Theory of Action: Academic standards represent a collective commitment around what students should learn each year. The state assessment asks students to demonstrate their knowledge, skills, and understanding related to these standards using a common measure. The resulting data allows us to see patterns in performance that should guide school and district improvement, helping identify areas of strength and opportunity.

Role of Performance Level Descriptors in Defining Proficiency: Performance level descriptors bridge the state assessment to classroom instruction and the systems of formative assessments that guide local instruction and choices about individual students. *Academic proficiency represents a range of observable student performance characteristics*. There are multiple pathways to proficiency, and students rely upon their strengths differently within that range of performance.

Proficiency and Difficulty: A student's ability to demonstrate proficiency is influenced by the complexity of the texts or stimuli presented, tasks they're asked to complete, and the contexts in which they are engaged. As student performance improves, students are typically able to handle more challenging texts/stimuli, tasks, and contexts, and are able to demonstrate their skills and knowledge more accurately and consistently.

Three-dimensional science instruction, as envisioned by Next Generation Science Standards (NGSS), uses **scientific practices**, **disciplinary core ideas**, and **crosscutting concepts** to foster a deeper understanding of science and engineering, moving beyond rote memorization to engage students in real-world scientific investigations and problem-solving. The following rubric provides a means of thinking about integration of the dimensions that can be broadly applied to a variety of domain-specific content.

Proficiency in high school science generally includes an ability to **integrate all three dimensions** (Science and Engineering Practices, Disciplinary Core Ideas, and Crosscutting Concepts) of the standards at a grade-appropriate level to meet performance expectations. Students are expected to demonstrate application of knowledge that can be applied across the science disciplines.

Student performance indicates the ability to…

Below Proficient	Approaching Proficient	Proficient	Above Proficient
Use and/or integrate the three dimensions at a level aligned with middle school performance expectations rather than with high school performance expectations, or an attempt to do so is not present.	Integrate the three dimensions within the attempt to meet the performance expectation in a manner that does not represent full integration and is still progressing toward the high school performance expectation, or an attempt to do so is not present.	Integrate all three dimensions of the given performance expectation.	Integrate all three dimensions of a given performance expectation in a consistent manner that demonstrates a depth of understanding across science disciplines.

Student performance indicates the ability to…				
	Below Proficient	**Approaching Proficient**	**Proficient**	**Above Proficient**
	Identify and/or explain a general understanding of the disciplinary core idea(s) but lacks specificity and/or demonstrates inaccurate understanding.	Demonstrate some understanding of the disciplinary core idea(s) represented in the performance expectation.	Demonstrate understanding of the disciplinary core idea(s) represented in the performance expectation.	Demonstrate accurate understanding of the disciplinary core ideas represented in the given performance expectation.
	Apply science and engineering practice(s) related to the disciplinary core ideas in a manner that is limited or non-existent or in a manner that does not support accurate understanding of the disciplinary core idea(s) related to the performance expectation.	Apply the science engineering practice represented in the performance expectation in a manner that supports general understanding of the disciplinary core idea(s), but which may not render a product/explanation/ answer that is complete and/or entirely accurate.	Demonstrate application of science and engineering practice(s) in a grade-appropriate manner.	Consistently demonstrate application of the science and engineering practices with a level of sophistication.
	Evidence of application of crosscutting concepts to disciplinary core ideas is not present.	Support of a crosscutting concept as it applies to the disciplinary core idea(s) or performance expectation is lacking.	Apply a crosscutting concept to support the use of the disciplinary core idea in a grade-appropriate matter.	Utilize applicable crosscutting concept(s) to generate a hypothesis or prediction, to support or refute a claim related to the performance expectation, and/or to illuminate connections to other disciplinary core ideas or to other content areas.