

Garden City Public Schools

Garden City, New York



Inspiring Minds
Empowering Achievement
Building Community

Glossary of NYS P-12 SLS Science Terms

Winter 2018

Science Glossary List

<https://nextgenscience.org/glossary>

Phenomena

Observable events that students can use the three dimensions to explain or make sense of.

Crosscutting Concepts (CCC)

These are concepts that hold true across the natural and engineered world. Students can use them to make connections across seemingly disparate disciplines or situations, connect new learning to prior experiences, and more deeply engage with material across the other dimensions. The NGSS requires that students explicitly use their understanding of the CCCs to make sense of phenomena or solve problems.

Science and Engineering Practices (SEP)

The practices are what students DO to make sense of phenomena. They are both a set of skills and a set of knowledge to be internalized. The SEPs reflect the major practices that scientists and engineers use to investigate the world and design and build systems.

Disciplinary Core Idea (DCI)

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.

Performance Expectation (PE)

The NGSS is not a set of daily standards, but a set of expectations for what students should be able to do by the end of instruction (years or grade-bands). So, the performance expectations set the learning goals for students, but do not describe how students get there.

Three Dimensions of Science Learning

Crosscutting concepts, science and engineering practices, disciplinary core ideas

Three-Dimensional Learning

This is what students' experiences in classrooms implementing the NGSS should reflect: developing and using elements of the three dimensions, together, purposefully (i.e., to explain phenomena or design solutions to problems). Lessons and units aligned to the standards should be three-dimensional; that is, they should allow students to actively engage with science and engineering practices and apply the crosscutting concepts to deepen their understanding of core ideas across science disciplines.

Curriculum

Complete programs that comprehensively support the content goals of a science class over large pieces of instructional time (e.g., semesters, years). Curriculum includes all necessary components for instruction, such as lessons, assessment opportunities, and teacher guides.

Storyline

Storylines are statements that describe the context and rationale for the Performance Expectations (PEs) in each grade band and section.