



NYSED Turnkey Guidance: An Introduction to the New York State P-12 Science Learning Standards

Goal: To provide educators with an introduction to the New York State P-12 Science Learning Standards (NYSP12SLS).

PowerPoint Presentation:

- [An Introduction to the New York State P-12 Science Learning Standards PowerPoint](#)

Materials Needed:

- [Introduction to the New York State P-12 Science Learning Standards](#)
- [New York State P-12 Science Standards Development, Adoption, and Implementation Timeline](#)
- [The New York State P-12 Science Learning Standards Quick Guide](#)
- [New York State P-12 Science Learning Standards](#)

Instructions:

- Prior to the presentation, it is suggested that the educators receive the above linked sites. You may want to encourage them to review the sites before beginning the presentation.
 - Links are embedded where necessary.
 - Allocate appropriate time for each stop based on the number of educators and any time constraints.
 - Please read all directions before presenting so that you are aware of the layout and expectations.
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Stop 1: Introduction to the Standards

The introduction to the standards is essential to the contextualization and understanding of the standards, how they are organized, and how they are to be applied at each grade level. This stop is intended to introduce educators to the NYSP12SLS while exploring their role and purpose in 21st science curriculum and assessment.

Advance to slide 2 and read today's objectives, and then advanced to slide 3 and have educators read through pages 1-3 of the [Introduction to the NYSP12SLS](#) to answer the following questions:

1. *Why were the new science learning standards developed?*
2. *To whom do the science learning standards apply?*
3. *How can you best support the needs of English Language Learners/Multilingual Learners in your classroom?*
4. *How can you best support the needs of students with disabilities in your classroom?*

Suggestions to presenter: Based on the number of attendees and allotted time, please consider how you would like educators to answer the above questions. For example, consider:

- *Independent vs. small group work*
- *Whole group discussion*
- *Using a jigsaw platform for recording responses or other virtual method*

Stop 2: The Three Dimensions

Advance to slide 4 and allow educators time to read pages 4-5 of the [Introduction to the NYSP12SLS](#). Ask educators to define each of the three dimensions:

- Science and Engineering Practices
- Disciplinary Core Ideas
- Crosscutting Concepts

Provide time for educators to work collaboratively (with a partner or in small groups) to create a graphic representation of the three dimensions. Have educators post their representations so participants can take a gallery walk to view each representation. Allow time for educators to share their opinions of various designs.

Stop 3: The Organization of the NYSP12SLS

Advance to slide 5 and allow participants time to read pages 6-7 of the [Introduction to the NYSP12SLS](#). Ask educators to share their key understandings about the



organization of the NYSP12SLS. If educators need support, please utilize the following points:

- Science and Engineering Practices (SEPs), Disciplinary Core Ideas (DCIs), and Crosscutting Concepts (CCCs) make up the performance expectations.
- Science and Engineering Practices describe behaviors that scientists engage in as they investigate and build models and theories about the natural world and the key set of engineering practices that engineers use as they design and build models and systems.
- Disciplinary Core Ideas are the fundamental ideas that are necessary for understanding a given science discipline.
- Crosscutting Concepts are concepts that bridge disciplinary core boundaries, having explanatory value throughout much of science and engineering. These concepts help provide students with an organizational framework for connecting knowledge from the various disciplines into a coherent and scientifically based view of the world.

Walk through the structure of the NYSP12SLS. Please ensure, via discussion, that educators understand the following:

1. *Location of **performance expectations**.*
2. *The difference between a **clarification statement** and an **assessment boundary**.*
3. *The significance of an **asterisk (*)** in the standards document.*
4. *The significance of the notation (**NYSED**) in the standards document.*

Stop 4: Implementation Timeline and Quick Guide

Advance to slide 6 and display the [New York State P-12 Science Standards Development, Adoption, and Implementation Timeline](#). Please alert them to the dates for the rollout of new science assessments at Grade 5 and Grade 8, and new Regents Examinations in Science.

Advance to slide 7. [The New York State P-12 Science Learning Standards Quick Guide](#) provides information about the NYSP12SLS, explains the structure, and includes a brief Q&A for educators.

Ask educators to collaborate (partners or small groups) to review these two resources and discuss:

1. *Implementation of the NYSP12SLS.*
2. *State assessments that are aligned to the NYSP12SLS.*



Stop 5: Connecting to the Performance Expectations

Advance to slide 8. Visit the [New York State P-12 Science Learning Standards](#). The emphasis of the New York State P-12 Science Learning Standards is a focused and coherent progression of knowledge from grade band to grade band, allowing for a dynamic process of building knowledge throughout a student's entire P-12 science education

Give educators time to explore the standards based on their area of science certification and interest. Please point out the NYSP12SLS are organized into the following grade bands:

- Elementary Standards (Pre-K - Grade 5)
 - [NYS P-12 Science Learning Standards \(P-2\)](#)
 - [NYS P-12 Science Learning Standards \(3-5\)](#)
- Middle Level Standards (Grades 6 - Grade 8)
 - [NYS P-12 Science Learning Standards \(MS\)](#)
- High School Standards (Grade 9 - Grade 12)
 - [NYS P-12 Science Learning Standards \(HS\)](#)

Explain that the major instructional shift in the new standards is the inclusion of the performance expectations. These performance expectations integrate the three dimensions previously mentioned. Please note to educators:

- The order in which the performance expectations are presented is not necessarily the order in which the performance expectations need to be taught.
- Performance expectations from various domains are connected, and educators will need to determine the best overall design and approach, as well as the instructional strategies needed to support their learners to attain grade level/course expectations and the knowledge articulated in the performance expectations.
- Highlighted performance expectations may be different from the Next Generation Science Standards performance expectations.

Provide an opportunity for educators to identify a performance expectation that would call for an instructional change in their classroom instruction and explain how they would modify their instruction to align with the NYSP12SLS.

Stop 6: Closure/Reflection

Advance to slide 9 and provide educators time to reflect on their understanding of the NYSP12SLS and gather questions that remain. Participants will answer the following:

- *What did I learn about the NYSP12SLS?*
- *What questions remain about the NYSP12SLS?*
- *What are your next steps going to be to fully implement the NYSP12SLS?*