



DISTRICT OF COLUMBIA

OFFICE OF THE STATE SUPERINTENDENT OF

EDUCATION

2016 Next Generation Science Standards FAQ Overview

In 2013, the District of Columbia adopted the Next Generation Science Standards (NGSS), which are based on the National Research Council's Framework for K–12 Science Education, as its state learning standards. The NGSS integrate content and application and reflect how science and engineering are practiced in the real world. Discover more about the NGSS and find resources to support implementation below.

Q: What is the relationship between the NGSS and A Framework for K-12 Science Education?

A: A Framework for K-12 Science Education is the parent document for the Next Generation Science Standards (NGSS). The Framework provides the foundational research, information, and narrative description of student learning from which the NGSS were distilled. The NGSS is difficult to understand and use for assessment or planning without the Framework.

Q: Are the NGSS adopted nationwide like the Common Core State Standards?

A: Twenty-six “lead states” donated resources and expertise to the development of the NGSS. As of February, 2016, 16 states have adopted the NGSS. The District of Columbia adopted the NGSS December 2013.

Q: How do the NGSS relate to the Common Core State Standards?

A: Common Core State Standards cover Mathematics (-M) and English Language Arts (-ELA) only. While CCSS includes standards for literacy in science and technical subjects, they do not include science standards. The Next Generation Science Standards reference relevant CCSS-M and CCSS-ELA standards and practices. The NGSS were constructed with the CCSS in mind, but their inception and development have been guided by leaders in science education and the National Science Teachers Association (NSTA).

Q: What about assessment?

A: As of March 2016, the federal law still requires students to be tested in science once each in elementary school, middle school, and high school. Science assessments will continue to be administered at grades 5, 8, and in high school. Students will take a DC Science Assessment aligned to the NGSS in 2016.

- To learn more about the District of Columbia Science Assessment, visit: <http://osse.dc.gov/page/dc-science-assessment-assessment-next-generation-science-standards-ngss>.
- The District of Columbia is participating in the State Collaborative on Assessment and Student Standards (SCASS) for Science supported by CCSSO to assist in developing evidence statements and tasks aligned to the NGSS. The SCASS will also

work to identify priorities, timelines, and next steps in planning for NGSS assessments.

Q: What can DC science educators do to prepare for the NGSS?

Answer:

- This school year is an opportunity for science educators to begin incorporating three-dimensional learning into their classrooms.
- Science educators should take part in professional learning opportunities that focus on A Framework for K-12 Science Education (the foundation document to the NGSS) in order to gain a deep understanding of the dimensions of the “Framework” (i.e., Science and Engineering Practices, Crosscutting Concepts, Disciplinary Core Ideas of science); and to understand how these dimensions are integrated into Performance Expectations and reflect on how this relates to classroom practice.
- Teachers should pick two to three practices or cross-cutting concepts they would like to improve on in their classrooms and implement them intentionally and well.
- School teams can reflect on effective science instructional practices (i.e., help students surface prior knowledge, construct understanding, make sense of learning experiences, and promote a positive learning environment and appropriate scientific discourse).

Q: Where can you find NGSS resources?

Answer:

- Visit the OSSE NGSS webpage at: <http://osse.dc.gov/service/next-generation-science-standards-ngss-page> or search for NGSS resources at <http://www.learndc.org>.
- Attend professional development or learn about training opportunities. Look for current offerings at: <http://osse.dc.gov/newsroom/newsletters>.
- Visit dcstemnetwork.org to look for additional upcoming training opportunities.
- Visit the NGSS website at www.nextgenscience.org.
- Download the free NGSS app and CCSS app from Mastery Connects.
- Download or purchase, read, and study A Framework for Science Education available at: http://www.nap.edu/catalog.php?record_id=13165.
- Download or purchase, read, and study A Guide to Implementing the Next Generation Science Standards at: <http://www.nap.edu/catalog/18802/guide-to-implementing-the-next-generation-science-standards>.

Q: What instructional practices should DC science educators continue to use?

A: Science educators should focus on developing student’s science content knowledge and practice incorporating three-dimensional learning in the classroom. Consider the following:

- Using instructional materials that align to NGSS. Implementing a tool like the [Achieve EQuIP Rubric](#) can help to evaluate alignment.
- Expecting their students to use claims, evidence, and reasoning in their discourse about science concepts.
- Using effective science instructional practices (i.e., help students surface prior knowledge, construct understanding, make sense of learning experiences, and promote a positive learning environment and appropriate scientific discourse.)

Q: How do existing K-12 science instructional materials align with the NGSS?

A: At this time, DC educators are encouraged to stick with their current instructional materials and district adoptions.

- Currently, there are no materials known to be truly NGSS-aligned. Ask your vendors to supply you with any current information regarding alignment to the NGSS, and ask for information about how instructional materials address the three-dimensional nature of the standards.
- In spring of 2014, Achieve Inc. released a draft Publisher’s Criteria tool to help publishers create science instructional materials that are aligned to NGSS. OSSE will be providing quarterly training opportunities for LEA’s and community stakeholders.
- In winter of 2014, Achieve Inc. released a tool called Educators Evaluating the Quality of Instructional Products (EQuIP) to help science educators identify high-quality materials that align to the NGSS.
- Educators are encouraged to learn about the science and engineering practices and the crosscutting concepts in-depth, and practice integrating the three-dimensions with their current instructional materials.

Q: How will the move to NGSS affect secondary science courses?

A: National groups have examined the correlations between Advanced Placement science courses and the NGSS and have made the documents available online for guidance and planning. Appendix K of the NGSS outlines course maps for secondary science courses.

- Additional course maps mapping Accelerated Course Pathways for High School were released in 2015 and can be accessed via www.nextgen.org.
- The District of Columbia currently requires four years of science to graduate.

Q: How is OSSE helping?

- Disseminating regular news and information related to the District's transition to NGSS
- Connecting you to local and national NGSS resources via the OSSE NGSS webpage
- Providing monthly opportunities for LEA's and school leaders to provide feedback and receive technical assistance
- Providing training in support of:
 - Understanding A Framework for K-12 Science Education and the NGSS.
 - Implementing effective instructional practices for the NGSS.
 - Developing training opportunities focused on meeting the needs of all learners.
 - Making informed curricular decisions

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