Science Assessment Resources

NGSS Assessment Tools: This site provides background on general NGSS design principles, as well as specific aspects of the Connecticut state assessment design structure and process (e.g. item cluster template and item types). The site also includes science performance tasks developed by Connecticut educators.

Contextus: A site designed to house a variety of science assessment resources including a library of publicly available performance tasks aligned to NGSS. Contextus represents the efforts of a community of educators, leaders, and partners dedicated to better science assessments that center students and their learning.

Edulastic NGSS Assessments: A free online assessment platform, includes pre-made and vetted assessments for science teachers. This includes NGSS assessments that cover all of middle school standards and half of high school standards.

Concord Consortium: Technology-enhanced assessments that address middle school physical and life science NGSS performance expectations.

Next Gen Science Assessments: The Next Generation Science Assessment (NGSA) group is a multi-institutional collaborative that is applying the evidence-centered design approach to create classroom-ready assessments for teachers to use formatively to gain insights into their students' progress on achieving the NGSS performance expectations.

Stanford NGSS Assessment Project: The Stanford NGSS Assessment Project (SNAP), funded by S.D. Bechtel Jr. Foundation and Bill and Melinda Gates Foundation, focuses on ways that high-quality performance assessments can facilitate meaningful implementation of the standards.

The Wonder of Science: Their performance assessments were created by Paul Andersen and other science teachers implementing the NGSS. Many of these are first drafts and most of them have not been used with students. Electronic versions are available for all 194 performance expectations in the NGSS (K-12).

Performance Assessment Resource Bank: An online collection of high-quality performance tasks and resources that support the use of performance assessment for meaningful learning. Resources include performance tasks, professional development tools, and examples of how schools, districts, and states have integrated performance assessment into their systems of assessment. These resources have been collected from educators and organizations across the United States and reviewed by experts in the field.

Exemplars NGSS Science Samples: Hands-on science performance tasks aligned to Next Generation Science Standards. Designed to help students build their skills of inquiry, engineering, and communication, these engaging investigations let learners develop their understanding of science's big ideas. Material is approved by NSTA Recommends and includes performance tasks for instruction and assessment, teacher planning pages, rubrics, and annotated student anchor papers.

Tennessee District Science Network Task Library: In early 2019, NextGenScience launched the Tennessee District Science Network (TDSciN), a group of six districts in Tennessee working collaboratively to improve their science programs and move towards the vision of science education reflected in the Tennessee Academic Standards for Science. As part of this work, teachers from each

district collaborated in cross-district educator workgroups to develop a library of assessment tasks. These tasks and accompanying resources can deepen educators' understanding of classroom tasks that measure student proficiency in today's science standards.

Kentucky Through-Course Task Bank: The TCT Database is populated with TCTs available across grade levels and addressing the science and engineering processes as well as the crosscutting concepts.

Task Annotation Project in Science: The Task Annotation Project in Science (TAPS) was launched to provide an answer to the questions "what does it look like to ask students to demonstrate progress toward three-dimensional standards?" and "what are the most important features of high-quality science tasks?" This suite of resources includes annotated examples of assessment tasks for elementary, middle, and high school as well as a series of short resources that highlight the major takeaways across the whole project.

Science Cognitive Complexity Framework: This framework offers a new approach to capturing and communicating the complexity of summative assessment items and tasks designed for three-dimensional standards. The complexity framework can be used to assess the degree to which an assessment task asks students to intellectually engage in and make use of disciplinary core ideas, science and engineering practices, and cross-cutting concepts in service of sense-making. The new framework allows for both the analysis of individual items or tasks and the holistic analysis of multi-component tasks or item clusters. A recording of an introductory webinar on the science framework is available here.

Science Assessment Task Screening Tools: These two tools are intended to assist educators in evaluating science assessment tasks to determine whether they are designed for three-dimensional science standards based on the *Framework for K–12 Science Education*, such as the Next Generation Science Standards.

Transforming Science Assessment: Systems for Innovation: This series of resources is designed to provide state education leaders with 1) information about how states are currently pursuing statewide assessment systems in science; 2) analyses of what features influence different approaches, with an eye to supporting state leaders as they make their own decisions regarding science assessment systems; 3) detailed state profiles that highlight how and why some states have made decisions regarding designing and enacting different examples of systems of assessment; and 4) a how-to guide for policymakers looking to enact systems of assessment in science.