Science ASSESSMENT PRACTICES



What does it mean to have a system of assessment for a district science education program?

Educators strategically use evidence from standards-aligned formative, benchmark, interim, and state-level assessment, along with student surveys, to reflect on their practice and the progress of students.

What are the opportunities and challenges?

- Opportunity to solidify and collaborate on a vision for science learning
- Opportunity to reframe assessment culture as a relationship—mentor and mentee support—rather than being about getting the "right" answer, accountability, or giving a grade
- Opportunity to make assessment a meaningful part of student engagement, linking to their identities and interests
- A challenge is finding structured time for educators to come together and develop tools and reflect on outcomes.

How does this connect to a vision for equity?

Collaborating around assessments solidifies what the vision is for all students and offers a guide for supporting all students. Authentic and varied assessments provide multiple means to demonstrate understanding.

Why it Matters

Administrators:

With assessments all aligned to standards and with each other, students have a greater chance of success. The Hypothesis (or "Theory") of Practice is that student outcomes will improve.

Teachers:

Will have a better understanding of where students are at in their learning in relation to grade-level standards.

Will build stronger relationships with students to support rather than only monitor their learning.

Students, Families, and Communities:

Students and caregivers will have a better sense of what students know and don't know, and what grades mean across classes.





What are some strategies for implementation?

- Establish a clear vision for science learning and continually reflect on how well assessments provide data on progress toward that vision.
- Determine a collaborative understanding of what makes a quality, standardsaligned assessment (<u>example</u>).
- Districts offer learning opportunities for educators to collaboratively create assessments and structured time to reflect on student outcomes.

What are some good reflection questions to consider?

- How are educators using assessment data from multiple sources to reflect on their learning and student learning?
- How is data used to improve access to equitable opportunities for all students?

What do national professional groups or education researchers say on this topic?

- <u>National Academies report</u> on assessment in science, <u>chapters 6 and 7</u> particularly address systems
- <u>Nextgenscience.org resources</u> on systems of assessment in science, including <u>a guide</u> <u>for decision making</u>
- DPI Science Assessment website
- <u>DPI Strategic Assessment</u> resources, including <u>Ms. G's year of science</u>
- <u>Stanford NGSS Assessment Project</u>
- <u>Stanford presentations on NGSS</u> assessments and <u>samples for a system</u>

Further Resources

Administrators:

- <u>Education First Local</u> <u>Assessment Playbook</u> – fewer and better assessments
- <u>Assessment Inventory Resource</u> - WestEd tool to analyze current practice
- <u>Measured Progress infographic</u> on elements of a balanced assessment system and their purposes
- <u>Article on science assessment</u>
 <u>systems</u>

Teachers:

- <u>Sample assessments</u> developed by Wisconsin educators and national groups
- <u>Stanford NGSS Assessment</u> <u>Project</u> - samples

Students, Families, and Communities:

- Be aware of how students are grouped (or tracked) in classes based on test scores; <u>advocate</u> <u>for changes to this inequitable</u> <u>practice.</u>
- <u>DPI assessment resources for</u> <u>families (</u>ACT, Forward Exam, etc.).

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