Science Assessment

The California Next Generation Science Standards are a set of standards designed to begin in kindergarten and continue through grade twelve. These standards are sequential and foundational. It is essential that all students begin to learn science in the earliest grades and demonstrate the understandings needed to meet the K-2, 3-5, 6-8 and 9-12 Performance Expectations.

- CASE believes that all students should have access to sufficient class time to learn all of the standards.
- CASE believes that all teachers should have access to sufficient professional learning, planning time, and resources to prepare for, teach, and locally assess all of the standards.

With the adoption of the Next Generation Science Standards for California (CA NGSS), our state has the opportunity to envision a science assessment system that

- is informed by the extensive body of research and criteria for effective assessments regardless of local course sequences;
- will guide increasingly sophisticated, three-dimensional science teaching and learning in every California classroom from Kindergarten through high school;
- demonstrates students' abilities to use the Science and Engineering Practices, Disciplinary Core Ideas and Crosscutting Concepts to understand science in a three-dimensional way;
- samples from all standards for all students;
- has the flexibility to accommodate various course models and pathways, and if necessary, allows any high school assessment participation be "banked" for necessary reporting;
- aligns with the vision of the National Research Council’s Framework for K-12 Science Education for the benefit of California students and their teachers.

Effective NGSS assessments support K-12 classroom teachers by informing the use of frequent formal and informal classroom assessments, designed to monitor learning on a broad scale and

- are developmentally appropriate;
- utilize math and literacy abilities appropriate to the student’s grade level;
- improve student preparedness for higher-level learning and careers;
- are composed of multiple measures and methods including performance tasks;
The California Association of Science Educators (CASE) advocates strongly for assessments that

- are inclusive of the NGSS Performance Expectations at every grade level;

- broadly sample across the domains of life science, earth/space science, physical science, and engineering across the K-2, 3-5, 6-8, 9-12 NGSS grade bands;

- assess three-dimensional learning; while some assessment items may only assess two of the three dimensions, the assessment items should not assess only a single dimension.