

Position Statement

Approved by the
CASE Board of Directors
June 8, 2019

Implementation and Support of State Standards

Introduction

Standards-based education guides the content that students should master in each grade and shapes curriculum development at every grade level. Teachers and local school officials, in collaboration with families and community partners, use these standards to help students achieve academic success. Although the standards are intended to provide objectives for students and teachers, decisions about classroom instruction are made at the local level by the teacher, local administrator, and/or the locally-elected school board.

All of the state content standards, including science, were designed to encourage the highest achievement of every student, by defining what all students should understand and be able to do at each grade level¹. Standards are designed to prepare students for success in life, college, and the workplace. Through this design for **all** students, standards can help provide a lever for educational equity. In particular, the NGSS Lead States (2013) and National Research Council (2012) acknowledge that there are inequitable opportunities for some students to learn. Achievement gaps in science persist for girls, English learners, students with disabilities, and students of color, which must be considered in the implementation of standards to ensure that every student has access to high-quality instructional time.

In California, the State Board of Education decides on the standards for all students, from TK through high school. On September 4, 2013, the State Board of Education (SBE) adopted the *Next Generation Science Standards for California Public Schools, Kindergarten through Grade Twelve (CA NGSS)*². The NGSS Appendices A-M were also adopted to assist teachers in the implementation of the new science standards and to aid in the development of the new science curriculum framework.

California developed a statewide implementation plan for NGSS³ in 2014, with funding allocated at the state level for CA NGSS Implementation. In 2014, key stakeholders came together to form the *California NGSS Collaborative*. CASE is one of five members of the **California NGSS Collaborative** along with California Department of Education, California Science Project, WestEd/K12 Alliance and County Offices via CCESSA Science Curriculum and Instruction Steering Committee. Part of the efforts of the Collaborative include the development and delivery of the California NGSS Statewide Rollouts.

1. CDE <https://www.cde.ca.gov/be/st/ss>

2. CA NGSS <https://www.cde.ca.gov/pd/ca/sc/ngssstandards.asp>

3. CDE <https://www.cde.ca.gov/pd/ca/sc/documents/sciimpplan120214.pdf>



CASE believes it is essential that all students have access to a high-quality science education that provides them with the skills and knowledge they need to be well-informed, and to be prepared for college, careers, and civic life, and to understand and appreciate the scientific enterprise.

Starting in 2014, a series of two-day workshops were offered throughout the state. The rollouts were designed to provide regional science education leaders with equitable access to high-quality professional learning around NGSS. Rollout materials are available to all California educators, administrators, and other stakeholders. Further, the **CA NGSS Collaborative** developed a resource to check for the alignment between courses designed for the CA NGSS and Common Core Math Standards.

The California Science Framework⁴ was adopted in 2016 to serve as the statewide resource and guide for TK-12 science educators. This document followed, and incorporated key principles from, the 2014 *Next Generation Science Standards Systems Implementation Plan for California*.

In 2018 the California NGSS Toolkit for Instructional Materials Evaluation was shared with science leaders from the state's County Offices of Education. The COE leaders then prepared districts in their counties to do a meaningful review of instructional materials before piloting and adopting new curriculum.

The process of adopting and implementing new standards is labor and time intensive. It does not happen without support and contributions from educators, administrators, parents, community members and more. The end goal, however, is worth the effort as all of our students will be better poised for future success.

Declarations

CSTA believes it is essential that all students have access to a high-quality science education that provides them with the skills and knowledge they need to be well-informed, and to be prepared for college, careers, and civic life, and to understand and appreciate the scientific enterprise. The California Association of Science Educators (CASE) supports the full implementation of the California *Next Generation Science Standards* and 2016 California Science Framework as an effective, research-based approach to accomplish these goals and transform science education. CSTA considers certain conditions for science teachers necessary for this to succeed, including but limited to the need to:

- develop district and state policies and regulations for both formal and informal education that are consistent with and supportive of the expectations in the *NGSS* and the vision of the *Framework*;
- allocate the necessary funds so that science programs can be executed as designed and completed in the agreed-upon time period; and
- provide technical and financial support at the state and local levels to create assessments consistent with the *NGSS*;
- participate in professional learning opportunities designed to support the implementation of the *NGSS*;
- ensure that the quality of facilities, equipment, and technology needed for implementation of the *NGSS* are provided;
- ensure that funds are allocated and the procedures for obtaining needed science supplies are clear and well defined;
- advocate for the value of and support for the *NGSS* in the school, district, and community;
- work in partnership with communities to give teachers opportunities to learn about the cultural fabric of the community

Citations

The National Science Teachers Association's (NSTA) position statement about the implementation of NGSS holds true at the national level and at the state level. CASE endorses NSTA's The Next Generation Science Standards position statement of December 2016 as a blueprint for efforts and advocacy in California (NSTA <https://www.nsta.org/about/positions/ngss.aspx>)

4. CDE <https://www.cde.ca.gov/ci/sc/cf/cascienceframework2016.asp>