
Next Generation Science Standards (NGSS)

California State Board of Education's mission statement outlines the following vision for all California's students:

All California Students of the 21st Century will attain the highest level of academic knowledge, applied learning, and performance skills to ensure fulfilling personal lives and careers, and contribute to civic and economic progress in our diverse and changing democratic society (SBE 2012).

This memo is to provide information regarding the implementation of new Science standards in schools across California, and in other states in the nation, called Next Generation Science Standards (NGSS).

Why new standards?

- California State Standards are nearly 15 years old, and since that time, major advances have taken place in the world of science, and in our understanding of how students learn science effectively.

How were the standards developed?

- NGSS were completed in April, 2013 through a collaborative, state-led process, facilitated by the non-profit organization Achieve, Inc. States choose whether to adopt them, or not.

What is unique about these standards?

- The NGSS outline a conceptual shift in science education to prepare all students to be future scientists/future citizens.
- All students are expected to learn all standards, culminating in performance-based tasks anchored in the local context.
- The standards emphasize deeper learning and application of knowledge.
- The standards articulate an increase in sophistication from kindergarten to 12th grade.
- There is a greater emphasis on physical sciences, technology, and engineering practices.
- NGSS works in combination with the adopted standards in other disciplines, including Common Core.

-
- The standards are internationally benchmarked with the expectations of high-performing countries (ex. Finland, Singapore, Hong Kong, Japan, Canada etc.).

When will these be “rolled out”?

- Teachers are currently implementing these standards to some degree in current courses, as they become more familiar with them.
- Teachers are considering new course models, and expect to launch the first new course to 9th graders in the fall of 2018.

Will there be shifts to standardized tests in response to these new standards?

- Yes, in EITHER the 10th, 11th, or 12th grade (TBD by district)
 - Pilot testing in Spring 2017
 - Field testing in Spring 2018
 - Operational testing in Spring 2019

How is TUHSD supporting the transition to these new standards?

- Time for teachers to collaborate
- Science Task Force: Leadership Team of teachers, admin, and district office representatives
- Professional Development and Conferences

What is the Science Task Force working on?

- Exploring new course sequences aligned to NGSS
- Professional development for teachers
- Determining implementation timelines (new course models expected fall 2018)
- Outreach to stakeholders (parents, students, board)

What are the teachers working on?

- Review and learning of new standards and draft science frameworks
- Review and learning of new course sequence options and models
- Implementation of new curriculum and instruction practices in current classes

How can I learn more?

<http://www.nextgenscience.org/>

Draft science framework: <http://www.cde.ca.gov/be/cc/cd/scienceframeworkcontents.asp>