Next Generation Science Standards

Frequently Asked Questions: Updated 2.8.17

Tamalpais Union High School District - Science Task Force

The state of California, along with 18 other states, adopted new science standards in 2013, called the Next Generation Science Standards (NGSS). Districts across the state are learning about and transitioning to these new standards. The following FAQ sheet will provide information about the new standards, and how TUHSD is approaching them.

About the Standards:

Why new standards?

- California State Standards are almost 20 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.

What is unique about these standards?

- All students are expected to learn all standards, culminating in performance-based tasks anchored in the local context and phenomena.
- The standards emphasize deeper learning and application of knowledge, with more physical sciences and engineering practices.
- The standards articulate an increase in sophistication from kindergarten to 12th grade, and are benchmarked against competitive international standards.

When will NGSS be implemented? Which students will be impacted?

- Teachers are currently implementing NGSS standards in existing courses, and we are developing new courses aligned to these standards.
- Our first new course will be rolled out to 9th graders in the fall of 2018. This will impact current 7th grade students and grade levels below.
- Upon full-scale implementation, NGSS will span all grades, Kindergarten-12th.

About Courses:

What will courses look like upon full-scale implementation?

- The state of California recommends allocating 3-4 years for all students to learn all standards, and courses as we currently know them will need to change.
- Our current plan is to phase out the existing Integrated Science program.

- We propose to implement a *new* 3-course sequence of Physics (9th grade), Biology (10th grade) and Chemistry (11th grade) that have Earth and Space Science integrated into each course. This course sequence will likely be adopted by numerous districts across the state.
- We will propose a change to our graduation requirements to reflect the new course sequence.
- All 3 courses will be submitted to earn UC lab "D" science approval. If approved, this course sequence meets the recommended requirement by the University of California colleges.

Will there be advanced options available?

- Yes. After the 1st year course, students who meet course prerequisites will have an option to pursue an accelerated pathway by doubling up in science courses.
- We will continue to offer our electives and Advanced Placement options.

How will other courses and departments be impacted?

- We anticipate minimal impact to other departments and course offerings. 97% of TUHSD students already take 3 or more years of science.

Will this change be good for students?

- Yes. All students will complete all elements of the foundational sciences. The focus on college readiness, and science and engineering practices will better prepare all students for post-secondary options.

Will extra support be provided to students who need it?

- Yes. Teachers will use effective instruction and interventions strategies, both in class and during SMART/Tutorial periods, to ensure all students learn the same high academic standards.

Will changes occur across all schools?

- Yes. We will present a unified approach.

About the Assessment:

What will the new state assessments look like? Who will be tested?

- State-mandated standardized assessments will change, due to new standards.
- Districts choose to implement the new assessment in the 10th, 11th OR 12th grade. Assessments will be computer-based.
- Pilot Test - Spring 2017; Field Test - Spring 2018; Operational Test - Spring 2019

About our Staff:

What is staff working on?

- Staff members are very excited about these new standards and approach to science education. Current endeavors include course development, curriculum development, parent and student input, approaches to classroom instruction, professional development, and augmentations to equipment and facilities.
- Our new course recommendations come from the experience, expertise, and collaboration of our science teaching staff.

About Learning More

- *How can I learn more?*
    - www.nextgenscience.org
    - www.tamdistrict.org