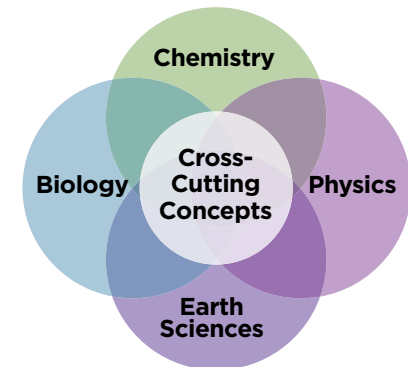


Academic standards set the foundation for our schools and set the expectations for what students should know and be able to do each year and upon graduation. While state science standards historically have been inconsistent, unfocused, and unimaginative — and not anchored in real-world expectations — 26 states are taking a step forward by developing the Next Generation Science Standards (NGSS).



The Next Generation Science Standards have some important innovations to ensure students are prepared for the challenges of college and the workplace, including:

- Every NGSS standard has three components: *content*, *scientific and engineering practices* and *cross-cutting concepts*. The integration of rigorous content and application reflect how science is practiced in the real world —and on-the-job in STEM occupations.
- A focus on a few disciplinary core ideas to ensure coherence within and across grades. This moves science education away from the siloing effect that occurs between Chemistry, Biology, Earth Sciences, and Physics, so that students can understand how the various science disciplines overlap, interact, and build on one another.
- A clear set of expectations for how scientific knowledge and engineering applications intersect across the disciplines.



Rather than siloing, NGSS includes cross-cutting concepts so students can understand how various science disciplines overlap and interact.

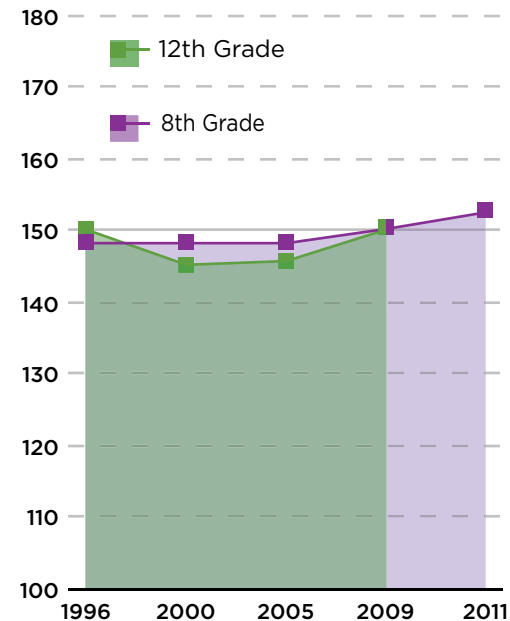
Key Messages

- The U.S. has a leaky K-12 STEM talent pipeline, with too few students entering STEM majors and careers, and too few highly-qualified teachers in the science disciplines. We need new science standards that stimulate and build interest in STEM education.
- 26 states are leading the development of the K-12 Next Generation Science Standards, which will be rich in content and practice and prepare students for college and careers.
- We can't successfully prepare students for college and careers unless we set the right expectations and goals. While standards alone are no silver bullet, they provide the necessary foundation upon which the rest of the science (and STEM) education system can be built.
- The NGSS are critical to the business community because they are designed to prepare all students today for the jobs of tomorrow.
- The NGSS will ensure that all students graduate from high school with the scientific skills and knowledge needed to excel in the workplace. And in turn, this will lead to more STEM-ready employees at all levels.

30%

Percent of high school graduates who took the ACT, scored college-ready in science

On the Nation's Report Card, U.S. Students' Progress Has Been Flat Since 1996 (Out of a Possible Score of 300)



Source: <http://nces.ed.gov/nationsreportcard/science/>

