NATIONAL ASSOCIATION of SCHOLARS

State Science Standards: Franklin Standards

Overview

The National Association of Scholars (NAS) and Freedom in Education (FIE), organizations dedicated to improving America's science education, have created *The Franklin Standards: Model K-12 Science Standards*.

State standards are the single most influential documents in America's education system. State education departments use them to provide guidance to each public K-12 school district and charter school as they create their own courses. State standards also influence what textbook authors write and what assessment companies such as the College Board test for in their advanced placement examinations. They affect teacher training and they provide the framework for teachers' individual lesson plans. Private schools and homeschool parents also keep an eye on state standards.

Yet too many state education departments have imposed state science standards drawing on sources such as the Next Generation Science Standards (NGSS), which combine misguided pedagogical theory, low academic standards, politicized instruction, and training in activism. America at large has suffered from their success. Too many Americans have emerged from our schools ignorant of the basics of scientific knowledge, scientific reasoning, and scientific habits and character. We have too few scientists, engineers, and technicians—and too few citizens with the information to judge policy arguments based upon scientific questions. Furthermore, the failure of our schools is becoming a national security risk, as America faces ever sharper scientific and technological rivalry from its peer competitor, China. We must restore rigorous, depoliticized American science instruction if we are to ensure the liberty, the prosperity, and the security of the United States of America.

NAS and FIE want to improve every aspect of American science instruction by inspiring America's state education departments to provide similar science standards. We therefore provide the *Franklin Standards*, so that Americans can reclaim their scientific and technological heritage as a nation second to none of scientists, engineers, and informed citizens—much like Benjamin Franklin himself.

The *Franklin Standards* will prepare our children for college and career because it provides comprehensive content knowledge in Physics, Chemistry, Biology, Earth and Space Sciences, Technology and Engineering, and History of Science. The *Franklin Standards* integrates its standards with sustained attention to the scientific method and the distinction between theory and fact. It emphasizes that science is never settled, but is always subject to testing and revision, and should never be decided by authority or a consensus. The *Franklin Standards* also will educate

students act as informed and confident citizens and policymakers by acquiring the scientific habit of subjecting theory to continued critical evaluation.

Science education that prepares students for college and career requires substantial mathematical content knowledge. The *Franklin Standards* have been crafted to complement Mathematics standards that will provide that knowledge—above all, Mathematics standards keyed to provide Algebra I in Grade 8. The *Franklin Standards* will provide content to match existing reformed Mathematics standards and will provide a benchmark for states that intend to reform their Mathematics standards.

The *Franklin Standards*' straightforward structure makes it easy for teachers to use and easy for parents to hold teachers accountable for how well they teach science. The *Franklin Standards*' intensive content standards also facilitate reliable assessment, whether by state-level testing or tests by school districts and individual teachers.

The *Franklin Standards* will especially benefit the most disadvantaged students. Disadvantaged students benefit from intensive content instruction even more than better-off students, who receive large amounts of content knowledge from their families and peers. Content standards that abbreviate content foster an unequal society because they especially harm the education of disadvantaged children. The *Franklin Standards*' intensive content standards fulfill America's promise of equal educational opportunities for everyone.

Americans of all parties want to take back their schools. NAS and FIE drafted the *Franklin Standards* to equip governors, state legislators, school boards, and grassroots activists for that fight. Every American needs to know what proper science instruction should be. We encourage all citizens to get in touch with state policymakers, to call for adopting some or all of the *Franklin Standards*' as a state science standard. Each state should judge how to adapt the *Franklin Standards* to best serve its students.

The *Franklin Standards* are intended above all as models for state education standards—but we would be delighted if they informed science education in school districts, charter schools, private schools, and home schools. We have crafted them to be useful for every variety of education.

But state science standards are the linchpin of science education—they stand halfway between state laws and school district policies, and they have more power to shape American science education than any other single document. We absolutely need good state science standards—a positive vision of what they should be, and not just a critique of the shortcomings of existing science standards. Policy institutes, grassroots organizations and policymakers all can use them to press the education establishment: *Why don't you teach this?*

States and school districts should create science standards modeled on the *Franklin Standards* because it teaches American students their heritage of scientific and technological excellence.

Learn more at https://www.nas.org/reports/the-franklin-standards