



Illinois State Board of Education

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FACT SHEET

Illinois Learning Standards in Science

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The Illinois Learning Standards in science emphasize a more engaged, hands-on science education that aims to give students a deeper understanding of the core concepts in science and engineering as well as practice applying those concepts – linking knowledge and real-world skills.

Quality science education is based on standards that are rich in content and practice, with aligned curricula, assessment, and teacher preparation and practice. It has been nearly 20 years since the National Research Council and the American Association for Advancement in Science produced their reports from which most state science standards are based. Illinois' previous science standards were adopted in 1997. Since that time, we have seen major advances in science and expanded our understanding of how students learn the subject. Our K-12, 1997 science standards needed to be updated accordingly.

Illinois' current science standards became effective in February 2014 and are based on the Next Generation Science Standards (NGSS). Forty-one experts, including three Illinois

educators, wrote the NGSS. State-level committees in 26 states reviewed the learning benchmarks. These groups confirmed that the design and development of the NGSS were guided by the best available evidence to ensure that students who meet these standards are prepared for postsecondary education and careers in the 21st century.

Illinois' science standards consider what it means to be "literate" in science by including the use of technology, critical thinking, and analytical skills. One of the biggest shifts in the transition to the new standards is how they encourage students to engage with science through integrated and interrelated concepts.

The Illinois State Board of Education believes that a high-quality science education equips students with the knowledge and skills - such as communication, collaboration, inquiry, and flexibility - that are necessary for all careers, not just those within the science, technology, engineering and math (STEM) fields. In today's global marketplace, students will face unprecedented competition in the workforce from their peers across the country and around the world. We must give our kids the right foundation to successfully solve problems and tackle complex issues that face current and future generations.

Illinois' current science standards connect scientific principles to real-world situations, making content and instruction more engaging and relevant to the topics and activities students experience outside the classroom. The standards also introduce science at an earlier age, when children have many questions about the world and how it works. They build on children's inherent curiosity.

The need for high-quality science education – beginning at the earliest grades – is more essential now than ever before. Students need the kind of preparation that not only supports their current learning but also gives them the tools and skills necessary to succeed in a rapidly and continuously changing world. The Illinois Learning Standards in science are a key component toward advancing high-quality teaching and learning in science.

The Illinois Learning Standards in science are not a curricula but a guide for what students need to know and be able to do by the end of each grade level. Schools began implementing the standards in 2014, with full implementation set for the 2016-17 school year. Though the new science standards are more comprehensive and rigorous than the 1997 science standards, there are similarities between the two. Many of the new standards correspond to, and build off of, the previous standards. Starting this spring, students in grades 5, 8 and once at the high school level will also take a new assessment aligned to the new science standards.

To comply with federal testing requirements, Illinois will administer the Illinois Science Assessment (ISA) to students enrolled in grades 5, 8 and once at the high school level. The ISA will be given online, and the high school assessment uses a course-based model with content aligned to Biology I. Illinois has an item-sharing agreement with the Office of the State Superintendent in the District of Columbia and is working in partnership with D.C. to develop the ISA. More details about the assessment are available at www.isbe.net/assessment/isa.htm.