



Fact Sheet for Parents

The need for high-quality science education—beginning at the very earliest grades—is more essential now than ever before. Students need the kind of preparation that not only supports their learning now, but also gives them the tools and skills necessary to succeed in a rapidly and continuously changing world. The Kansas College and Career Readiness Standards for Science (KCCRSS) are a key component toward advancing high-quality teaching and learning in science.

Overview

- It has been more than 17 years since the National Research Council and the American Association for the Advancement of Science produced their reports from which our state’s previous science standards were based. Since then, we’ve seen major advances in science and our understanding of how students learn science. Our students deserve to learn the most current science taught using the most effective methods.
- Our current KCCRSS were adopted by the Kansas Board of Education in June 2013 to take advantage of these new understandings we’ve developed over the last 17 years. Kansas State Department of Education compiled a broad review committee to influence the final version of the standards that were adopted. The committee comprised of K-12 classroom teacher, university faculty, business and industry professionals, and informal science educators.
- The KCCRSS most recently developed and adopted identify science and engineering practices and content that all K–12 students should master in order to prepare for success in college and 21st-century careers.
- Our current KCCRSS were built upon a vision for quality science education for ALL students
- KCCRSS were benchmarked against countries whose students perform well in science and engineering fields, including Finland, South Korea, China, Canada, England, Hungary, Ireland, Japan, and Singapore.
- KCCRSS are NOT and have NEVER been curricula. Standards articulate what students need to know and be able to do by the end of each grade level. Districts, schools, and teachers will determine their own curriculum, including what is taught throughout the year, and how it is taught.

How will my child’s learning experience be different?

- Our current KCCRSS have the potential to revolutionize science education. Not only do they incorporate the most current research and findings in science, they also include the most current research regarding how students best learn science.
- Our current KCCRSS allow students to think of science learning not as memorization of disconnected facts, but as a holistic understanding of integrated and interrelated concepts. This is one of the biggest shifts with the current KCCRSS compared to previous sets of science standards.
- Our current KCCRSS require students to provide evidence of their learning and will equip students with the critical thinking and analytical skills they need to be successful in college and to compete for today’s most rewarding jobs.
- Our current KCCRSS challenge classroom teachers to connect scientific principles to real-world situations, allowing for more engaging and relevant instruction that clearly covers complicated topics.
- Our current KCCRSS better support educators to make science accessible and interesting to ALL students by connecting learning over multiple years, across disciplines and grades and by applying crosscutting concepts to deepen students’ understanding of core ideas.



- Our current KCCRSS introduces science at an earlier age when children are asking lots of questions about the world and how it works. Most kids love science because they are inherently curious and it is an opportunity for them to have fun and learn at the same time.

Why science education matters now more than ever

- Issues related to science and engineering are all around us in our daily lives. The solutions and innovations human beings can develop to make the world a better place through scientific and engineering knowledge and discovery are endless.
- Global issues like medical research, nutrition, waste disposal, infrastructure development, telecommunications, and cyber-security all require science-based solutions and a basic knowledge of scientific principles. Today’s students need the right foundation to tackle long-term and complex problems that face our generation and future generations.
- Students will face unprecedented competition in the workforce not only within their home state and country, but also globally.
 - By 2015, nearly 60% of the new jobs being created will require skills currently being mastered by only 20% of the population, according to a recent report from the American Society for Training and Development.¹
 - According to the same report, job skills in STEM—science, technology, engineering and math—are among the skills experiencing the greatest increase in demand. In 1991, fewer than 50% of U.S. jobs required skilled workers. But by 2015, 76% of all newly created U.S. jobs will require highly-skilled workers with some proficiency in STEM.
- Of course, science education is about more than building a strong future workforce; it affords students the means to gain resiliency, critical thinking and analytical skills, and the knowledge they need to become capable and informed citizens in a technology-driven world.

Background

The Kansas College and Career Readiness Standards for Science (KCCRSS) were modeled after the Next Generation Science Standards (NGSS), which were developed through a collaborative state-led process. Twenty six states, including Kansas, volunteered to work with the 41 members of a writing team to lead the development of the standards. The science supervisors from Kansas and the other 25 states education agencies worked with the writers to provide feedback from their state broad-based committees. These state committees, including the one in Kansas, consisted of representatives from the K-12 education, education policy, scientific, post-secondary education, and informal science communities. In addition, a critical stakeholder team comprised of hundreds of members representing K-12 educators, administrators, higher education faculty, scientists, engineers, business leaders, policymakers, and key organizations provided confidential feedback at critical points in the development process. The draft standards also received comments from more than 10,000 individuals during two public review periods. These comments came from teachers, school and school district discussion groups, scientific societies, parents, and students. The writers used this feedback to make substantial revisions to each draft. The final standards were released in April 2013. According to the National Science Teachers Association, 12 states and the District of Columbia have adopted the NGSS as their state science education standards: California, Delaware, Illinois, Kansas, Kentucky, Maryland, Nevada, New Jersey, Oregon, Rhode Island, Vermont and Washington.

¹ “Bridging the Skills Gap,” American Society for Training and Development (2010).

<http://www.astd.org/%20About/~media/Files/About%20ASTD/Public%20Policy/%20BridgingtheSkillsGap2010.pdf>

