

### **When do schools have to implement the new science standards?**

Schools with grades 6-12 must implement the standards by September 1, 2016.  
Schools with grades K-5 must implement the standards by September 1, 2017.

### **Why was it necessary to change the standards and our expectations about what our children need to know and be able to do in science?**

Understanding science and applying scientific knowledge to everyday life is more important today than ever. Comprehending events, choosing and using technology or making informed decisions about healthcare require knowledge about science. Science is also at the heart of our nation's ability to continue to innovate, lead and create the jobs of the future. Having a solid K-12 science education will prepare all students for college, careers and citizenship.

### **Are the standards we adopted in New Jersey different from the Next Generation Science Standards?**

Science has been an integral part of our curriculum standards since the State Board of Education adopted the original Core Curriculum Content Standards in 1996. The standards have been reviewed publicly from time to time to take into account new developments in science education. In the most recent review, the science standards reflect the learning expectations found in the Next Generation Science Standards, but they are known officially here as New Jersey's Student Learning Standards for Science, to match how all of New Jersey's core content standards are named (ex. New Jersey's Student Learning Standards for Social Studies).

### **My child says science is his least favorite subject and that he's not interested in a science-related career. Why does he have to learn all this?**

Science is so much a part of our daily routine and our economy. The quality of our lives and the growth in jobs are linked more closely than ever to the related fields of science, technology, engineering and mathematics, or STEM. By setting statewide learning expectations for science, we are assuring that students will have the opportunity to gain the knowledge and skills they will need to have by the time they graduate from high school, regardless of whether they choose science as a career. Also, it's been our experience as educators to hear children say, and then change, which subjects they like and dislike from year to year. We are committed to a responsible approach that will ensure all children gain essential knowledge and skills in all core content areas.

### **Is there a statewide science test for the new standards? Do all students have to take it?**

State education regulations require that students be tested on their knowledge and skills in science at the end of grade 4, the end of grade 8, and at the end of the required biology course they take in high school.

### **Will schools have to build new laboratories and purchase other supplies because of the new standards?**

New Jersey's science standards have encouraged educators to make science as experiential as possible. There is nothing new in New Jersey's Student Learning Standards for Science that should require major facilities construction or renovation. Schools should be able to adapt their resources to teach the science standards at no additional cost.

### **Why do all students need to learn about science?**

There is no doubt that science and science education are central to the lives of all Americans. Never before has our world been so complex and science knowledge so critical to making sense of it all. When comprehending current events, choosing and using technology, or making informed decisions about one's healthcare, understanding science is key. Science is also at the heart of the United States' ability to continue to innovate, lead, and create the jobs of the future.

## Frequently Asked Questions

All students no matter what education and career path they choose, must have a solid K–12 science education in order to be prepared for college, careers, and citizenship.

### **What exactly do the science standards indicate students should learn at each grade level? Are there examples?**

New Jersey’s Learning Standards for Science were subjected to a public comment and review process for more than 12 months before they were adopted by the State Board of Education. The standards, which are statements of performance expectation about what all students should know or be able to do, are available from the NJ Department of Education’s website at:  
<http://www.nj.gov/education/aps/cccs/science/>.

### **Do the new standards focus more on the use of technology in science, or will hands-on learning activities continue to be emphasized?**

The new standards are based on the most current research on how students learn science. Parents should observe that the science teachers’ focus is shifting from a focus on simply teaching science ideas to helping students figure out phenomena and designing solutions to problems. This emphasis on figuring it out is new, provocative, and exciting, and it represents a revolution in how students learn science at all levels. Learning will be based on phenomena.

The main differences in today’s hands-on science activities is that they will not be tied to pre-determined single conclusions with only one correct answer. Teachers will engage students in authentic and meaningful scenarios that reflect the practices of science and engineering as experienced in the real world and that provide students with a purpose (e.g., making sense of phenomena and/or designing solutions to a problem). Students in our science classrooms will be discussing open-ended questions that focus on the strength of the evidence used to generate claims. They will build activities around their own questions, with a range of possible outcomes that collectively will lead to a deeper understanding of established ideas. Technology has always provided the tools that are used in modern scientific discovery. As students gather evidence to support their claims, they will leverage the available technology to make sense of phenomena or to design solutions to human needs.

### **What can I do to enhance what my child is learning in school about science?**

You can talk to your child's science teacher to keep informed about what is being taught and when it is being taught during the school year. You can plan watching science programs of special interest to you and your child on television, and take advantage of opportunities to supplement what is learned in school by visiting parks, museums and science centers. Also, don't forget the fantastic science laboratory in your own home – your kitchen! Cooking with your child can provide opportunities to learn science by following a recipe in which you measure the ingredients and then subject the food to various temperatures and processes.