Most Americans recognize that investing in public education contributes to the common good, enhances national prosperity, and supports stable families’ neighborhoods and communities. Science education is important for the next generation to engage and meet the economic, environmental, and social challenges of the 21st century. We all have high hopes that the next generation will achieve their full potential as adults. Engaging students in science and engineering performances is one of the most important ways to prepare students for the future.

The Framework for K-12 Science Education establishes research based expectations for engaging students in science and engineering practices using Core Ideas and Crosscutting Concepts. The vision for science education described in the Framework has been translated into the Next Generation Science Standards (NGSS) that integrates science and engineering practices, core ideas, and crosscutting concepts into a set of student performance expectations that describe the minimum expectations for all students.

The NGSS were released in the spring of 2013 with profound implications for the future of science education. The current work in science education is to provide the groundwork for all teachers to understand and utilize this vision for science education. The work will require that pre-service programs provide teacher preparation consistent with the vision set forth by the National Academies of Science.

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