



**International Technology and Engineering
Educators Association**

1914 Association Drive
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Dear Colleague,

Many of you have become aware of the report recently released by the National Research Council of The Academies directed by the National Board on Science Education entitled *A Framework for K-12 Science Standards: Practices, Crosscutting Concepts, and Core Ideas*. This report can be accessed via www.nationalacademies.org/bose.

The significance of this report is the direction that it proposes for K-12 science education, including a strong emphasis on technology and engineering. One could argue that technology and engineering should or should not be a part of the science curriculum of the future. However, the reality is that this report is public and will affect future science standards. By its nature, it is aimed at providing a different area of the curriculum in which technology and engineering will be taught. Just as technology and engineering teachers teach some science, this science framework now places a stronger emphasis on science teachers teaching more about technology and engineering. This report certainly has the potential to change the positioning of these subjects in our schools.

The Science Board acknowledges that, "Many high schools already have courses designated as technology, design, or even engineering that go beyond the limited introduction to these topics specified in the framework." The report further states, "We (the Board) simply maintain that some introduction to engineering practice, the application of science, and the interrelationship of science and technology is integral to the learning of science for all students." The Framework is, ". . . not intended to define course structure, particularly at the high school level." However, that does not preclude the Framework from doing so.

Technology and engineering educators should be proactive in their response to this report. Educators outside of our field will be discussing how they will be using this framework to create science core standards in every state. Technology and engineering educators need to be a part of those discussions to provide support to the science community as they attempt to teach more about our content.

ITEEA suggests the following steps for every concerned technology and engineering educator as it relates to this study:

Read the report, become familiar with the general direction, goals, and progression as it relates to technology and engineering. You will find that many concepts and ideas are being taught by technology and engineering teachers like yourself.

Work with your colleagues in developing a strategy for discussing this Framework with your state superintendent of instruction, the science teachers' association, administrator associations, and any other groups that may play a central role in its implementation. These people want to know that many of these goals are being taught and that you are ready to be of assistance to the science community.

Make appointments with key officials noted above. Your main asset in making your case is what you are already doing if your teaching includes *Standards for Technological Literacy* and your state standards for technology and engineering education. Selected states already have science and technology standards.



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Don't go to sleep. Make sure you keep this strategy going for at least three years. People change positions and key points are forgotten. Your influence will not be felt with just one meeting. Continue to inform your educational colleagues in these communities at all levels.

Do the same thing in your own school system starting at the top with your superintendent and moving through the school board as well as the administrators dealing with curriculum. Don't forget to become a closer friend with your science counterpart.

We want you to see this Science Framework as an opportunity to teach technology and engineering more widely than just your program. The average science teacher is not as prepared as you are to provide more than cursory detail regarding technology and engineering. The Framework only identifies general concepts. Therefore, your position becomes more important. Take the opportunity to be a leader and become very involved with the science community in their quest to be better educators.

Finally, keep in mind that **being the maker of the rules is more important than having them made and put upon you.** We want you to become one of the greatest assets involved in the Science Framework and exercise your leadership as you have never done before. You will never regret it and education will become much stronger because of you.

I look forward to hearing your success stories.

Sincerely,

A handwritten signature in black ink that reads "Thomas P. Bell, DTE". The signature is written in a cursive, flowing style.

Thomas P. Bell, Ph.D., DTE
ITEEA President 2011-12