Fix Science Education Now
By Alan I. Leshner

Comfort and familiarity with science and technology can no longer be a privilege only for the wealthy or the intellectual elite. In a democracy like ours, every citizen needs and deserves at least some level of understanding in these subjects, lest they be left behind as our society continues to evolve. A high-quality science education is now a baseline requirement for everyone, not just those hoping to compete for jobs in the future.

Our nation needs a serious, comprehensive reform of its science education. In the 21st century, all children need to master the same core scientific concepts. Efforts now underway nationally, at every grade level. No matter where they live, the nature of their career goals, or how much money their parents earn, all children need to master the same core scientific concepts. Efforts now underway nationally, at every grade level.

In the science-focused world of the future, we cannot afford to let anyone lag behind. We need to provide every student with a world-class education that both inspires them to dream big dreams and empowers them make those dreams real. We also need to provide appropriate science-learning standards for all students nationally, at every grade level. No matter where they live, the nature of their career goals, or how much money their parents earn, all children need to master the same core scientific concepts.

The National Academy of Engineering recently convened a diverse, international group of some of today's most accomplished technology thinkers and doers. This all-star panel proposed 14 specific Grand Challenges for Engineering in the 21st Century (www.engineeringchallenges.org). These challenges address energy, water, climate change, healthcare, and sustainability; improving the delivery of cancer treatments; protecting our nation's security; and increasing our nation's overall security. These challenges will require a multifaceted, multi-level approach.

To get started, we need to find ways of supporting the Grand Challenges. A law before Congress, the America COMPETES Act (HR 3480), would help support training and rewards for competent and inspiring teachers, attract the best and brightest minds from America and the world to study science, engineering and mathematics; and support the fundamental research needed to power our economy.

There is a law before Congress that could make a difference; it’s called the America COMPETES Act. This law would help support training and rewards for competent and inspiring teachers, attract the best and brightest minds from America and the world to study science, engineering and mathematics; and support the fundamental research needed to power our economy.

Fixing the U.S. science education problem will require a multifaceted, multi-level approach. Competitive pay for teachers should be our top priority. If we want to recruit and retain the best teachers, we need to reward them. Competitive pay for teachers should be our top priority. If we want to recruit and retain the best teachers, we need to reward them.

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