



ISSUE FORUM # 2: STEM Education

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Overview of Topic:

STEM (Science/Technology/Engineering/Mathematics) education is not only important to our students, but is also critical to our states' and nation's abilities to produce STEM literate citizens and future STEM workers. As science educators, we represent one fourth of the STEM initiative. We have the ability to incorporate the "TEM" into science classrooms with relative ease. How can we, as science education organizations and associations, help promote STEM teaching in the K-16 classrooms? What collaborations can we make with other "TEM" organizations to enhance STEM education? What roles do No Child Left Behind and Race to the top have on STEM education?

The focus of this forum is to identify and determine action steps about how we in science education (representing the S in STEM education) can incorporate STEM education into our teaching practices, curriculum, and professional development.

Guiding Questions:

- How can state chapters and associate groups help implement STEM education in science classrooms?
- What is the impact of STEM on Assessment/accountability in your state? With No Child Left Behind? With Race to the Top?
- Where does your state rank in STEM Education? How do we improve our STEM education in our states/nation?
- *What roles do our state and/or federal lawmakers play in STEM Education? How can we help them better understand the support or initiatives that are needed to advance STEM education?
- *What is the potential role for and the implications of the Science Conceptual Framework for STEM education in our states and the national level?

Essential Readings:

Improving K-12 STEM Education: Options for State Legislators -

http://www.asme.org/NewsPublicPolicy/GovRelations/PositionStatements/Improving_K12_STE_M_Education.cfm

STEM State of The Union Fact Sheet - <http://www.stemedcoalition.org/wp-content/uploads/2011/01/SOTU-Factsheet-STEM.pdf>

State Report Cards on STEM Education - <http://www.aboutastra.org/toolkit/state.asp> [look up your state]

Additional Suggested References:

STEM Education Coalition - <http://www.stemedcoalition.org/>

ITEEA – International Technology and Engineering Educators Association – www.iteaconnect.org

ASEE – American Society for Engineering Education – www.asee.org

NCTM – National Council of Teachers of Mathematics – www.nctm.org

NSTA – National Science Teachers Association – www.nsta.org