The National Science Teachers Association's mission is to promote excellence and innovation in science teaching and learning for all.
What NSTA Does

- Core Business
  - Conferences (PD)
  - Books/Publications
  - Advocacy

- Priority Areas
  - New Science Teachers Academy
  - E-Portal (Learning Center)
  - International
  - Urban Science Education Leaders
STEM – What do you think STEM means?
NSTA’s View of S.T.E.M

**Policy (STEM)**
- Advocacy
  - Legislation
  - Corporate
  - Careers
  - Collaborations
- STEM Education Coalition, Legislative Conference

**Practice (Science Ed)**
- Instruction
- Materials
- Professional Develop.
- Programs
- Research
- Standards

The Field
1. Design & Implementation Questions
What is NSTA doing in S.T.E.M.

- STEM Explorations
- NSTA STEM Task Force
- STEM Meeting of organizations in DC
- Online and print resources at NSTA
- Conferences
- Competitions
- Next Generation of Science (and Engineering) Standards
S.T.E.M. Meeting in DC

- Does your organization view STEM education as having a multi-disciplinary focus or a single focus, and how does your organization handle the differences?
- What research informs your organization’s understanding of STEM education and its application?
- Is the definition of STEM education in policy discourse different than when it is implemented in schools?
- What research needs to be done with respect to the four disciplines in order to support successful implementation of STEM education in schools?
Two Questions

- What research informs your (organization’s) understanding of STEM education and its application?
- Is the definition of STEM education in policy discourse different than when it is implemented in schools?
Practical Issues: From the DC group

- Time Constraints
- Teacher Professional Development
- Content
- Skills and Practice
- Teacher Preparation
- Assessments
- Alignment
- STEM Schools
Proposed S.T.E.M. School Study Criteria

- STEM-focused Curriculum
- Reform Instructional Strategies/Project-based Learning
- Integrated, Innovative Technology Use
- Blended Formal/Informal Learning beyond the Typical School Day, Week, or Year
- Real-world STEM Partnerships
- Early College-level Coursework
- Well-Prepared STEM Teaching Staff
- Inclusive STEM Mission
- Administrative Structure
- Special Supports for Underrepresented Students
Suggestions for Defining STEM?

- Science, Technology, Engineering and Mathematics
  - Separate and or Applied, project based courses
- Meta-discipline
  - the creation of a discipline based on the integration of other disciplinary knowledge (Morrison, 2009.)
- Trans-disciplinary
  - offers a multi-faceted whole with greater complexities (Kaufman, et al. 2003.)
What do you think?

- What do we need to provide for guidance to K-12 STEM educators?
- What do you need as engineering educators?
- What do we need as science educators?
- Who has to be involved that is not now?
- Can NSTA assist and if so how?
- Other?
Thank You

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