PLT and STEM

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Session Overview

- What is PLT and STEM?
- Conduct select PLT activities connected to STEM
- Explore resources that show connections between
**STEM Defined**

- **Science Connections** help students test hypotheses and ideas while explaining the world around them.

- **Technology Connections** introduce students to new technologies and to the great minds that designed them; the creation and use of tools.

- **Engineering Connections** include project design challenges, creation of action plans, and thinking like an engineer activities.

- **Mathematics Connections** encourage students to identify trends and patterns using real-world numbers and data; includes theoretical and applied mathematics.
Variations to Consider

• STEAM
  – Integration of Art

• STREAM
  – Integration of Reading and Writing, plus Art

• E-STEM
  – Integration of Environmental Education
Why So Much Emphasis on STEM?

• Push to be globally competitive
• Driven by TIMSS and NAEP scores
  – TIMSS is an international test (Trends in International Mathematics and Science Study)
  – NAEP is a US National Test (National Assessment of Educational Progress) and is given in all subject areas every four years.
Need to Emphasize STEM

- NAEP data suggest we’re not making consistent and necessary improvements.
- NAEP data available at: http://nces.ed.gov/nationsreportcard
- Minorities and Women are underrepresented in STEM careers
Why PLT Connects Well with STEM

• Content and processes in science, technology, engineering and math

• Strategies that favor traditionally under represented audiences:
  – Cooperative Learning
  – Hands On
  – Relevant and Real-World
Examples

Make Your Own Paper

Students investigate the papermaking process by trying it themselves. Students are thrilled to find that they can make paper and that their product is practical, as well as beautiful. See the PLT website, www.plt.org, for images of the paper-making process used in this activity.
Project Learning Tree is an award-winning environmental education program designed for teachers and other educators, parents, and community leaders working with youth from preschool through grade 12.
www.plt.org

- STEM Connections
  - PreK-8 Guide
  - Early Childhood
  - Secondary Modules
  - GreenSchools!
Prek-8 Activity Aids - STEM
Questions?
Thank You!

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