Intro to STEM Education

• STEM is
  Solving real world problems
• In STEM, your teacher is not your main source of information.
• In STEM, you are:
  • to integrate information you’ve learned in various classes
  • to research, ask each other questions—recognize all of your resources
Intro cont’d

You are

• to read and ask thoughtful questions
• to try various strategies--think creatively & critically
• to discuss, design, explain, try again, present, & ...
• to, most of all, NOT GIVE UP
STEM Habits of Mind (Expectations)

You are to demonstrate growth in the
• Engineering Design Process
• 21st Century Skills (Soft Skills):
  • Collaboration
  • Creativity
  • Critical Thinking (try multiple strategies; be able to explain why you chose them, etc)
  • Perseverance
  • Communication
  • Conflict Resolution
Engineering Design Process

- **ASK** to identify the need and constraints
- **RESEARCH** the problem
- **IMAGINE** possible solutions
- **PLAN** by selecting a promising solution
- **CREATE** a prototype
- **TEST** and evaluate the prototype
- **IMPROVE** and redesign as needed
Who Cares about Soft Skills? Employers!

Articles about the importance of soft skills

- https://www.fastcompany.com/3059940/these-are-the-biggest-skills-that-new-graduates-lack
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- https://www.dailymail.co.uk/wires/pa/article-2909129/Many-workers-lack-soft-skills.html
- https://www.monster.com/career-advice/article/soft-skills-you-need
- https://www.monster.com/career-advice/article/soft-skills-you-need

The list goes on and on...
STEM?

• What is a STEM Career?
  • Click to see a HUGE list:
    https://www.cscce.edu/academics/departments/science/futurescientists/what.shtml
Why Else Consider a STEM Career?

• http://www.wherestemcantakeyou.co.uk/docs/Why_STEM_Careers.pdf
• https://www.napequity.org/professional-development/counselor-training/stem-careers-students/
• https://study.com/articles/Ten_Reasons_to.Consider_a_Career_in_the_STEM.Fields.html
• https://examinedexistence.com/what-is-stem-and-why-is-it-important/
• https://blogs.gcu.edu/college-of-science-engineering-and-technology/pursue-stem-career/
• https://www.idtech.com/blog/why-is-stem-important
• https://www.precipart.com/blog/5-reasons-stem-career/
• http://stem.getintoenergy.com/why-a-stem-career/
• http://stemcareer.com/why-stem/
• https://www.youtube.com/watch?v=3bnMBhO0LnU
  https://careerwise.minnstate.edu/careers/stemcareers

The list goes on and on...
Thank you for listening!