Talking to Students about STEM – Things you might consider...

Created by Camille Sloan Schroeder, Manager Engineering Community Outreach
Iowa State University College of Engineering

- **Be authentic.** It is okay to be yourself and show that you are a real person. Sometimes presenters get too uptight, nervous or dress differently in order to look the part. There is no part, except a person who cares about kids knowing the innumerable career pathways of STEM. Kids get tired of PowerPoint, so consider just talking. Maybe you found a short video that has some age-appropriate humor or interesting STEM.

- **Ask the teacher first**...before you say anything or show anything. What do they hope you will accomplish with your visit? What would “success” be like to them, are there learning objectives she/he believe important for you to talk about (i.e., global awareness, team approaches, working with others on projects, importance of being creative)?

- **Think of the neat experiences you have had because of your education or work experiences.** If you get to travel with your job, get to wear jeans and t-shirts some days, have met someone interesting or seen things other people have not – talk about this. Do you get to have an awesome hobby like doing marathons or river clean up or love going to sporting events, shopping, or collecting something by virtue of making a decent income? Again, this goes to being authentic. STEM careers can expose people to some really amazing people, places, and research.

- **STEM is super broad.** There are millions of career paths in STEM. Talk about how everything they touch is impacted by engineers and others. They could do a job not even invented yet – STEM is everywhere...surely whatever they dream to be could be a part of that.

- **Be gender neutral and privilege free.** Try to have your examples not be all about cars or all about makeup. Find the balance. Think of what might matter to all kids – and work to eliminate privilege from your talk. Not every kid has a computer, phone, or IPod. Some youth would love to be part of a robotics team or go to a STEM camp, but they have to watch a younger sibling or their parents cannot afford those opportunities.

- **Engineers are creative.** Talk to the students about how engineering and STEM are all about being creative, innovative and thinking outside the box. Do they enjoy drawing, music, digital arts or design? Cool. So do lots of engineers and STEMists.

- **They are also problem solvers.** STEM professionals get to figure out the best way to get something done, make it better, or come up with a whole new product, design or solution. How neat is that? What would they like to invent or innovate?

- **Do you have an interesting story to make your visit entertaining about how you got into STEM?** Talk in terms of how you don’t have to love math or science to be an engineer. Talk to them about a story where you persevered, failed but kept trying, and how much you hope they will do the same. Make your story relatable to them and age appropriate. Did you have a teacher who let you create, a family member who helped you, a love of helping others?

- **Keep it shorter than longer.** Unless you have won awards at the local Toast Masters or hosted your own talk show, try not to talk longer than 9-11 minutes. The brain of anyone cannot listen indefinitely and kids are savvy consumers. Leave time for questions.

- **Bring stuff.** Have something hands-on to do for a short activity? Something to give away? Give them pencils, stickers, hats, candy, whatever cool swag you or your company can think of or afford. Students like stuff (so do adults) and even something small shows you cared enough to think of them.

- **Consider doing a little research prior to going – here are some links for a quick review:**
  - [http://www.engineeryourlife.org/](http://www.engineeryourlife.org/)