Questions

1. What made you want to become an engineering teacher?
2. How has engineering impacted you in your life?
3. How have your engineering students progressed this semester compared to the first semester?
4. What do you do to prepare your students to become potential engineers in the future?
5. Are there any students that are drawn into this class because they want to be engineers, or is it mostly students wanting to take this class to see what it is like?
6. How do you prepare your students in using the software that most engineers use today? Do you think they are learning just as well as some interns in college?
7. What is the age range of the students in your first level of your classes?
8. What do you think should be done differently in order to better encourage more students to become engineers?
9. What student’s result for a problem astounded you the most?
10. Why do you think students should be in an engineering class?

Answers to the Questions

1. It was more of a right place, right time situation. I was not actively looking for a teaching job when the opportunity came along. I feel called to work with kids, and teaching is a great avenue. Engineering offers the ability to connect in a non-traditional classroom setting. I have the ability to facilitate learning rather than teach it.
2. It has made me develop problem solving skills, and look at things from a thought process standpoint.
3. They have a better understanding of expectations and how to use the software provided more efficiently and quickly.
4. By challenging them with different problems and practical problems that need to be solved today. Making sure they understand how to sure they know how to use the software, and now I allow them to work on what they want.
5. Both, more of students that don’t fully understand what engineering is, but now that they have understand from the first level, around 80% want to continue in this pathway.
6. Fortunate enough to have access to it, and I start off showing them how to get the basics and when I assign the problems I let them understand it on their own so it is their own discovery rather than me force feeding the information to them, and rewarding them for mastering it and keeping them interested that way.
7. Mostly freshman and sophomores, but rarely do I have upperclassmen.
8. Expose them to as much uses, content, and projects as early as you can to engage them and show them why engineering can be not only a fun career where you are constantly challenged but why we need them in our society.
9. Will Poole, he astounded me with his 3d modeling of a functioning motor and the modifications he did to create a better high efficiency motor, and even won first place at TechFair for.
10. Because they may discover a skills that they didn’t know they had, but also it allows them to develop their problem solving skills which is important in any job.

Reflections from the Responses

1. This is exactly what I was hoping for. He is an engineer who just happened to be able to work with kids and loves it because he is allowed to transfer his skills and knowledge to better help and teach them.
2. This is exactly what engineering is about, is a way to train the mind to solve problems more efficiently and quickly.
3. This is great to hear that the kids are learning more and understanding different ways to approach problems
4. This is a way to allow the students to stay engaged and to allow them to discover on their own how to solve a problem. This in return lets students become their own teacher and use their own ways to solve problems.
5. Not as many students are drawn into the program because they love engineering, it is more of accidental love, and that makes it more astonishing because they discover their passion through programs like this.
6. Allowing them to be immersed with the tools that they need allows them to develop skills on their own, that will be eventually used if they become engineers.
7. I can use a study on this class because of their young age, which will allow me to see why they are drawn in so young to become engineers.
8. Immersing the kids and allowing them to use what they want at that time to solve problems is much like what being an adult engineer, they have access to all the tools they could need but the person chooses what they want to use to complete the job
9. I had the luxury to work with him and his skills are phenomenal, and he was much like the other freshman in the intro classes and discovered his passion though joining the intro class because he wanted to see what it was like.
10. Like I stated before engineering teaches the mind how to better develop problem solving skills and using things in other ways to better solve problems which is beneficial in any job.