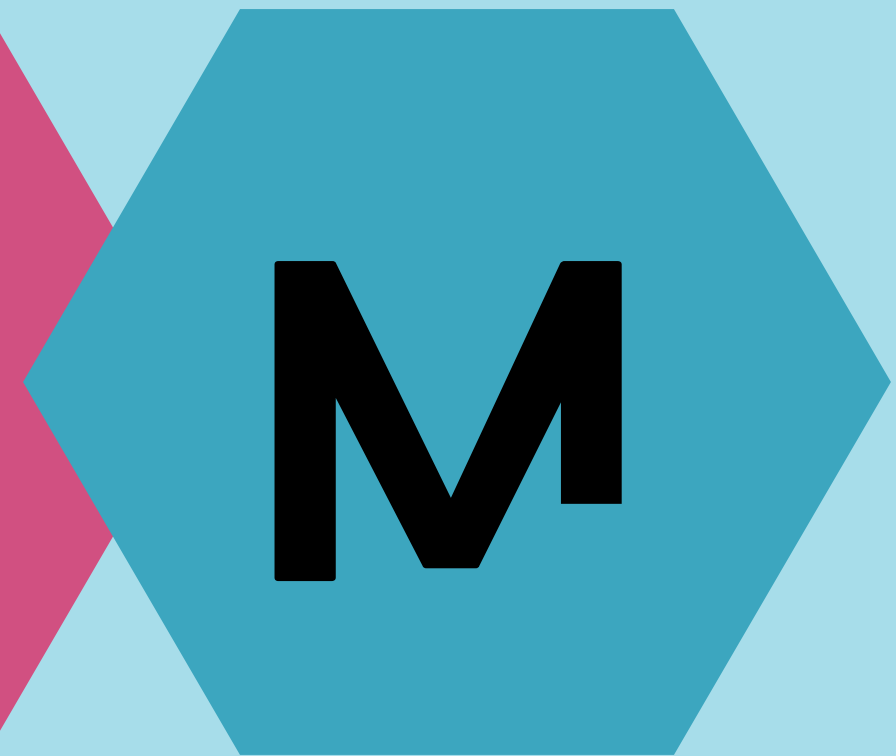
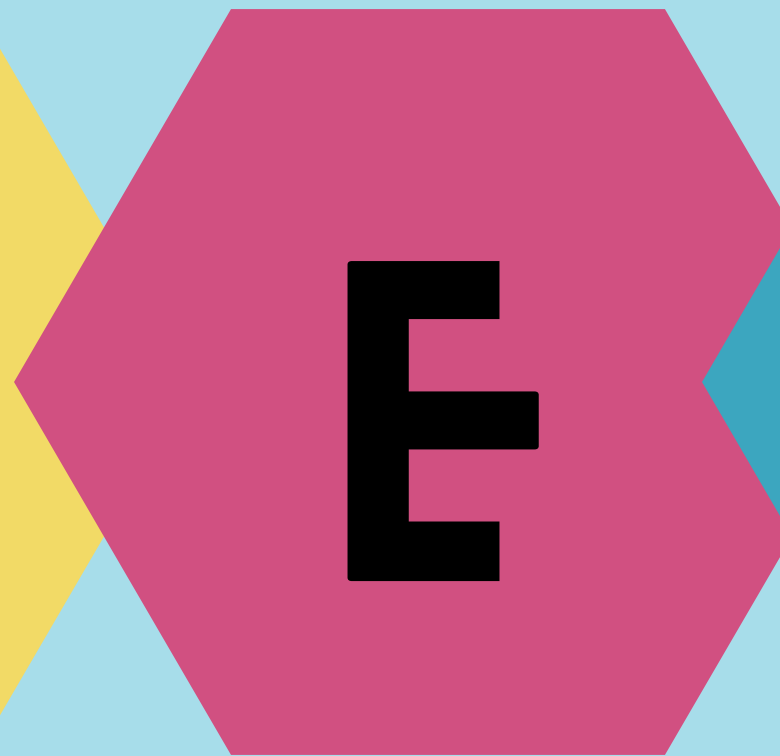
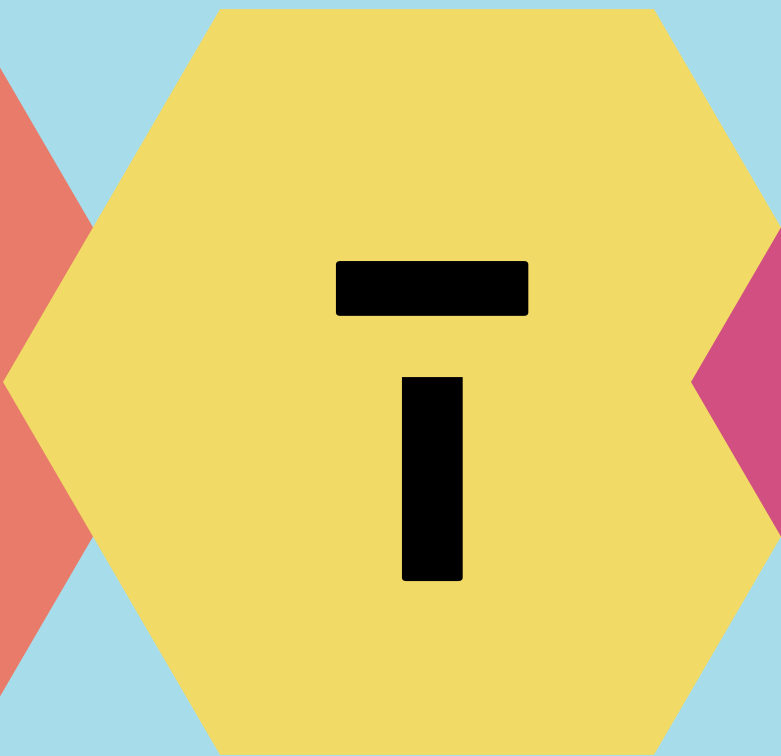
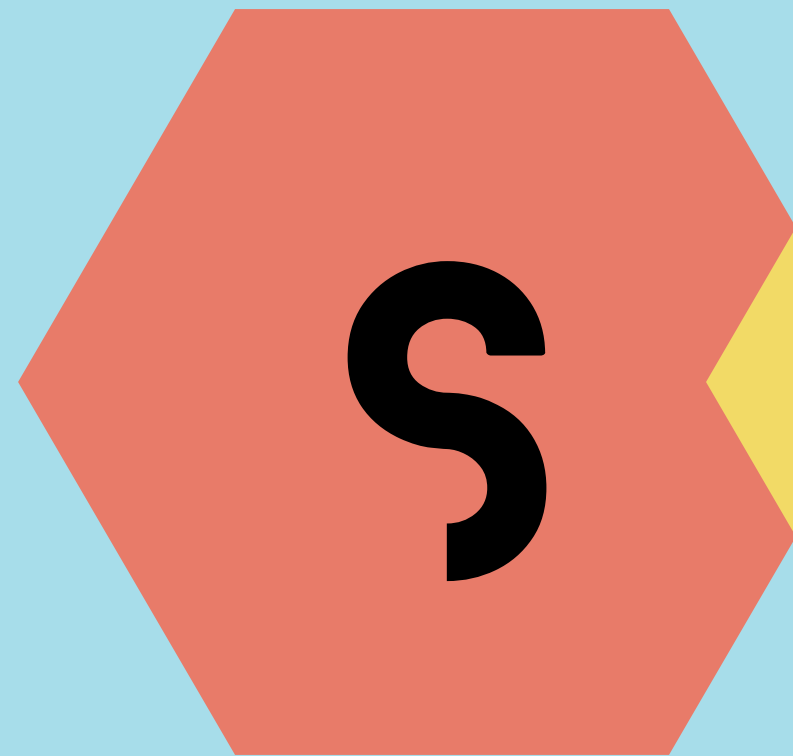

Introduction To



**By Aleaha Trump
Team 214D
Arcadia Indiana**

Teacher!

Why Did You Choose This Career?

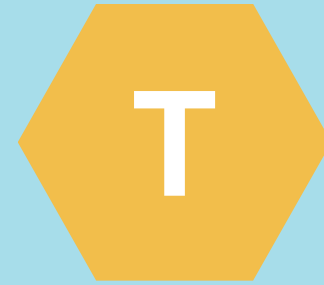
When I was in seventh grade, I was put into my first STEM class. I did not know then that the STEM teacher would soon be my greatest mentor.

My STEM teacher has influenced me to do great things. For example, she influenced me to join robotics. Not only this she provided me with confidence that I can try new things and overcome hard challenges. I am so grateful that she recommended that I go out of my comfort zone and join robotics because it is now one of my favorite things in life.

My STEM teacher embodies diligence and creativity. Ever since my seventh grade class, I have strived to be just like her. I choose to embody her creativity and diligence in VEX Robotics.



Science



Technology



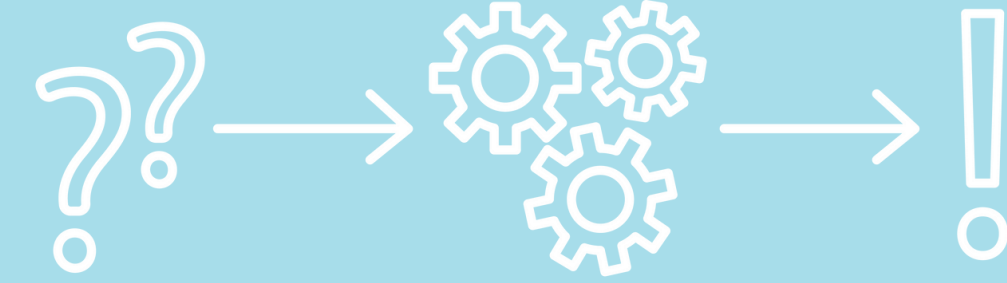
Engineering



Mathematics



How Do



Teachers

Use The Engineering Design Process?

STEM teachers utilize the engineering design process any time they create meaningful lessons for their students. Since STEM teachers' content usually involves either Science, Technology, Engineering or Math, they use the design process quite often. They may even actually teach the Engineering Design Process to their students.



How Do STEM Teachers Apply Steps of The Engineering Design Process?

Ask/Question: Each time a teacher begins to plan a lesson, they try to identify the needs of the class. They also take into consideration the restraints (materials, time, student backgrounds, etc.)

Research: After identifying the 'need' of the class, they then research how to best cover the need. During this step, they may even need to teach themselves more about the topic in order to relay the information to their students.

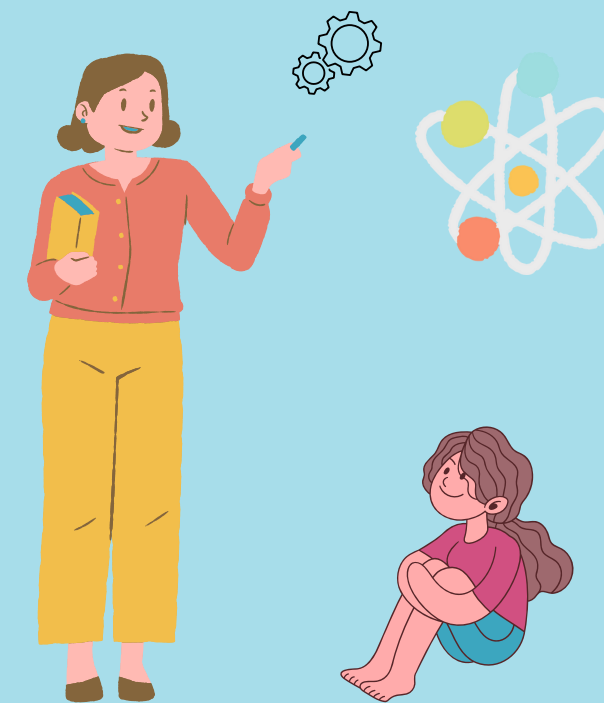
Imagine: Once the teacher has identified the need and done their research, they then begin to develop their plan for teaching the topic. Will they hold a lecture, create some sort of a hands-on activity, develop stations, etc?

Plan: During this step, the teacher will identify which of their imagined options (listed above) will be best suited for the students they have.

Test and Evaluate: At this step, the lesson plan is executed. The plan is followed and the teacher methodically delivers the content chosen during the steps above.

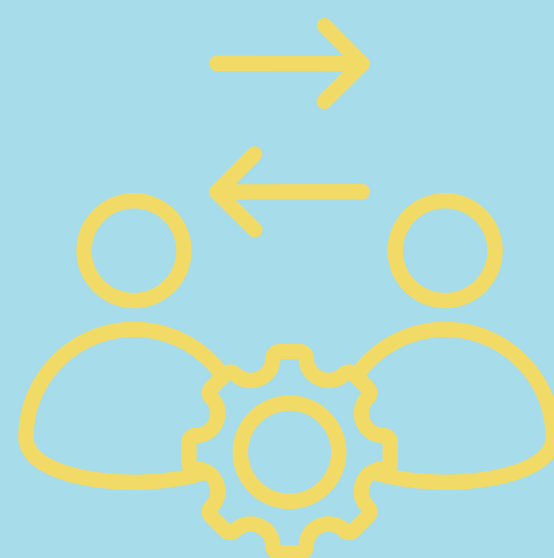
Improve: One of the most important steps during the process is improve. During this step, the teacher must evaluate his or her lesson and its effectiveness. They must determine what parts to keep and or scratch for the future. They must reflect upon whether or not their students learned what need was identified in step one.

Create: During this step, creation of the actual lesson plan begins. What was gained during 'research,' proposed during 'imagine' and ultimately chosen during 'plan' is formally come together to create the plan to be delivered by the teacher.



How does the STEM Teacher approach to engineering design match or differ from the approach used by my team?

My robotics team uses the engineering design process to solve problems and challenges presented by the VEX IQ competition game. Each time we face a problem with our robot, we must evaluate what constraints there are and then create a solution that overcomes them. We also tend to look online and research ideas that others have posted about. We must carefully identify possible solutions to the problem and then ultimately choose one idea to create. Once our prototype is created, it is then placed on the robot and we begin testing it. We collect data from trial runs to evaluate our prototype's effectiveness. Once we commit to the solution we continually evaluate its effectiveness and continue to tweak it as needed.



How has participation in VEX Robotics prepared you for a future career?

Participation in VEX Robotics had prepared me for my future career in many ways. For example, I have strengthened and over time perfected my problem solving skills.

This is a valuable skill in any career and especially in law. Lawyers have to analyze problems from different perspectives and find unseen solutions.

In addition, robotics has allowed me to learn persistence. In law, it is important to never give up when you come across an obstacle. Robotics has allowed me to develop this skills.

READY

