

Mr. Pitts is the Engineering teacher at Greenville Early College High School. The school is a P-TECH program that provides students with dual credit and career-based certification opportunities in a STEM-based career pathway. The students in the ECHS engineering pathway earn an associate degree in Engineering while in high school. Mr. Pitts is pivotal to the program, as he currently teaches all four levels of the ECHS engineering program: Principles of Engineering, Engineering Design, Engineering Science, and Manufacturing Engineering Technology. In addition, Mr. Pitts instructs the solar car classes and serves as the lead coach for the GHS Iron Lions Solar Car team. Mr. Pitts is a proud veteran and dedicated educator. The Greenville Early College team is blessed to have Mr. Pitts!

Mr. Pitts has served the Greenville Independent School District for 20 years. He has been in his position at ECHS for the past four years. During his time with the district, he has made a substantial impact on Career and Technology Education (CTE) students. When Mr. Pitts began teaching the ECHS engineering classes four years ago, the success and engagement in those classes hit a new level. Mr. Pitts has created a classroom environment where students' curiosity and creativity can thrive. Students are encouraged to engage in the engineering process through innovative, hands-on lessons and projects. For example, Mr. Pitts provided his engineering classes with a trebuchet challenge. Students competed between classes and grade levels to see who could design, draft, and construct a full-size trebuchet that would launch cantaloupes the furthest. This project exhibited Mr. Pitts' masterful teaching skills. During this project, Mr. Pitts acted only as a facilitator,

certification opportunities in a STEM-based career pathway. The students in the ECHS engineering pathway earn an associate degree in



allowing the discovery, innovation, and process to reside with the students. The students split themselves into design groups and selected project managers, then worked together to develop and execute their designs. The students constructed every portion of their trebuchets, including the wheels and armatures.

The level of innovation, learning, and problem-solving that occurred during the trebuchet project was amazing. During the process, Mr. Pitts skillfully asked probing questions and encouraged students to think at the highest levels. The culmination of the students' efforts and learning was on display on competition day. Watching the students test the machines they had designed and constructed was incredible. The students analyzed each launch, recalculating and making adjustments during the event. They worked together and actively participated in each step of the engineering process. Best of all, they exhibited pride and joy - even more wonderful measures of learning!



Another example of the incredible STEM experiences that Mr. Pitts is creating for the early college students was evident during a recent bridge-building project. Mr. Pitts again challenged his students to design, draft, and create; this time with a bridge project. The students' designs had to bear weight on their bridges using only Elmer's glue and popsicle sticks for construction. They were challenged to consider how their design would impact their bridge's ability to withstand weight, and they were required to analyze their bridge's failure assessing how and why the failures occurred. The students were then required to reflect on what could have been done differently during their engineering process to achieve better success. Again, Mr. Pitts guided the project process and asked high-level questions, but he left the onus to the students. The students were allowed the opportunity to create, question, design, analyze, and reflect in ways that encouraged them work together as teams and develop/hone high-level skills. Again, it was evident that Mr. Pitts has created a classroom where students thrive and love learning.

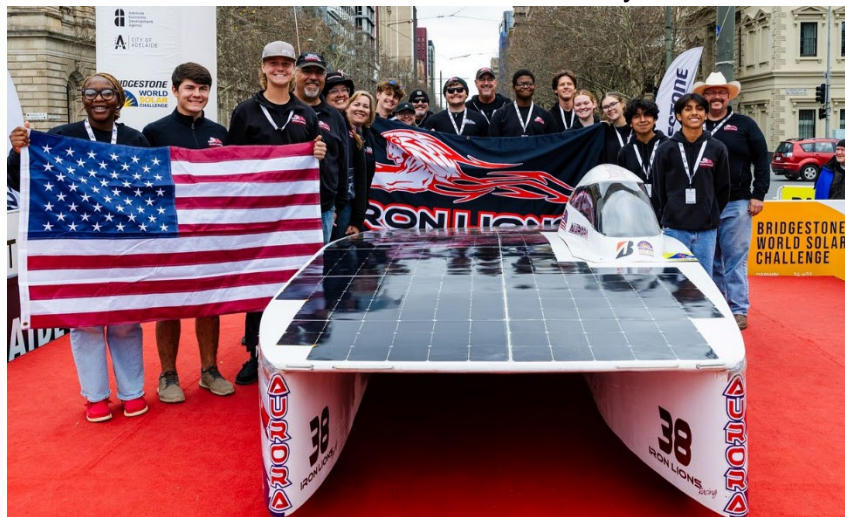
what could have been done differently during their engineering process to achieve better success. Again, Mr. Pitts guided the project process and asked high-level questions, but he left the onus to the students. The students were allowed the opportunity to create, question, design, analyze, and reflect in ways that encouraged them work together as teams and develop/hone high-level skills. Again, it was evident that Mr. Pitts has created a classroom where students thrive and love learning.



Along with the immense impact Mr. Pitts is making in the classroom, his dedication to STEM education extends beyond it as well. Mr. Pitts is the lead coach for the Iron Lions Solar Car team at Greenville High School. Mr. Pitts was instrumental in the creation of Iron Lions in 2010. Since leading the charge at the team's inception, Mr. Pitts and the Iron Lions team have participated in 12 solar races and earned 7 national championships. Most notable, however, is that this past summer, Mr. Pitts led the Iron Lions to experience something unprecedented. The Iron Lions took on the **World Solar Car Challenge in Australia** and competed with collegiate and professional teams.



The Greenville Lions are the only high school solar car team to ever compete at this level. This once-in-a-lifetime opportunity was possible for students because of who Mr. Pitts is as a STEM educator. He gives countless additional hours and effort to coaching the Iron Lions. In addition, Mr. Pitts actively participates as a leader in the Solar Car Challenge Foundation. He writes and presents curriculum for the foundation to new solar car teams. In fact, Mr. Pitts researched what was necessary for solar car training to qualify for official



continuing education credit for the State of Texas and then designed and proposed the curriculum to meet that criteria. Mr. Pitts's involvement in the Solar Car Challenge foundation is paving the way for more students and educators to be a part of STEM education.

[\(Read about the journey to Australia\)](#)

There are so many more examples of how Mr. Pitts impacts STEM education and students every day. To put it simply, though, he is changing lives that will change the future, and that is something Greenville Early College High School is so grateful for.

[Read published articles about the team and their accomplishments!](#)