



Emery County **SHINING** Example of Implementing **COMPUTER SCIENCE** in Schools

Earlier this week, the Education Department for the nation was tasked to invest \$200 million each year to boost U.S. classroom instruction in computer science and STEM.

Utah is already a national leader in K-12 computer science education, and Emery School District is one shining example of how computer science has been integrated into their schools and their community.

In the 2016-2017 school year Emery School District applied for the STEM Action Center's Computer Science Pilot Grant, and received \$200,000 to grow K-12 computer science education in their district.

The grant provides pilot funding to the local education agency to build a K-16 computing pathway



Elementary school students practice programming with code.org.



FIRST team practicing with their robot.

with elements needed for new CS/IT programs or to enhance existing programs.

With the grant money, Emery School District was able to train Eric Mortensen, a biology teacher at Emery High School, to teach a Computer Science Principles class. In its first year, 25 students registered for the class, and this school year the program more than doubled in size with 53 students registered for the class.

"The kids that I have this year are really excited and interested in the content," Mortensen said. "We haven't had any computer science courses offered here in the past, and I hope that it will continue to grow."

Learn more about STEM Action Center programs at stem.utah.gov

Emery School District has also used the grant to grow the K-12 FIRST programs. Starting with around 17 students in the 2015-2016 school year—before they received funding—the program now has nearly 200 students participating in the 2017-2018 school year.

FIRST engages kids in kindergarten through high school in exciting, mentor-based, research and robotics programs that help them become science and technology leaders, as well as well-rounded contributors to society.

“The kids here are learning a new trade,” said Jordan Leonard, Emery County Economic Development Director. “In the past we’ve offered

opportunities to engage with agriculture, coal mining and energy, but now we can offer students these FIRST opportunities, which teach them engineering, math, computer science and leadership skills.”

With a population of around 2,200 K-12 students in Emery School District, nearly 10 percent of the student body will participate in FIRST this year.

“The teams have taken first, second and third place in qualifiers around the state,” Leonard said. “Parents and students are excited and so is the school district and the county. We have students learning computer science skills at all ages now.”

Last year Emery County’s FIRST Lego League team qualified for state and placed tenth out of 50 in the state; their FIRST Tech Challenge team placed fourth in the state out of 50 teams; and in the FIRST Robotics Competition their high school team placed highest in the state out of all the rookie teams.

“We are able to teach these students programming, including JAVA, and that’s recognized worldwide,” said Rob Murray, a community member in Emery County, who has directed the FIRST programs in the district the past couple years. “We are excited for this program to continue, we think it will be great for our community and the future.”



Emery County’s FIRST Success:

- First Lego League team qualified for state and placed 10th out of 50.
- First Tech Challenge team placed 4th in state out of 50 teams.
- First Tech Challenge team received the Inspire Award and the Control Award.
- First Tech Challenge team won both state qualifiers.
- First Robotics Competition team placed the highest of all rookie teams.



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