

STEM in the News

Like most business owners, farmers are always seeking an edge to improve efficiency, productivity, and profitability. For grain producer Matt Reimer, the search for that edge led him to develop a computer program that revolutionized his farm. Reimer used what he learned online to develop a remote control application that worked flawlessly in the fields. In fact, during the recent harvest, the driverless tractor unloaded grain from the combine over 500 times, saving the farm an estimated \$5,000 or more this season. Plus, the worker responsible for driving the tractor in a straight line for hours on end was able to focus on other, more productive tasks on the farm.

Source: <https://news.mit.edu/2015/mitx-mooc-helps-farmer-develop-autonomous-tractor-app-1201>

“Programming isn't about what you know; it's about what you can figure out.” - Chris Pine

STEM Career Spotlight

Programmers design, develop, and test software to ensure it's at its best quality. In May 2019 the median wage for computer programming was \$85,550 a year. Computer programmers develop many apps, games, and websites that you use for work. Computer programming is a fun job but it has its challenges. It may be time consuming at times, but the fun work pays off.

STEM History

The first theoretical computer programmer in history is Ada Lovelace (King). Lovelace was a gifted mathematician and intellectual who translated an Italian article that was located on the Analytical Engine and wrote extensive notes on the machine's capability. In these notes, she described the functions of the system and she was able to describe the system in more detail than Charles Babbage was able to. However, Charles Babbage is often credited with the concept of creating the machine but Ada Lovelace best understood the potential that computers would one day achieve. The Analytical Engine was never completed due to Lovelace's death early on in their friendship. Ada Lovelace became a role model for many young adults due to being extremely ahead of her time and she proved that genders do not matter to be successful.

STEM Curriculum

Coding

Discipline- Technology, English

Activity- Go on youtube and look up a couple of videos on coding and take notes and state facts. Once you are done study these notes and have your parents quiz you on what you have learned. This will improve knowledge of the programming world.

STEM Movies

Snowden (2016) is about a top contactor who leaves his job from a Security Agency when he knows that there is data being assembled to track every form of digital communication from foreign governments, terrorist groups, and even from americans. But when he decides to leak information, he becomes a bad person to some, a good person to others, and a fugitive to the law. Programming is a cool way for you to design and build different things but, you could get into a lot of trouble when doing the wrong things while programming something. That is why you should always know how to program the right way, so you won't run into any trouble.

“Everybody in this country should learn to program a computer, because it teaches you how to think.” - Steve Jobs

#STEM@ADM Spotlight

Mrs. Jennifer Spann teaches a class called Fundamental Computers Part Two at Alice Drive Middle School. This class gives students a bigger understanding of how programming and coding work together. She uses many different instructional forms to teach students how to code properly and use this knowledge to help students be prepared for their future careers. Learning programming is an important skill to have.



Famous STEM Person

One of the world's best programmers is James Gosling. He is the lead designer and programmer of the Java programming language. Java is a programming language that conforms to the ECMAScript specification. JavaScript is a high-level program, which is carefully compiled into a user-friendly program. It has many features which include dynamic typing, prototype-based object-orientation, and first-class functions, all of which were commonly used by James Gosling in his programs.

STEM Challenge

Would you like to program code with your friends?

Materials: Paper, Pencils.

Step 1: Grab a piece of paper and a pencil and write down all the letters of the alphabet.

Step 2: Right behind the letters create a random design for each letter.

Step 3: Copy the same thing off that paper to another paper.

Step 4: Have fun creating secret codes with your friend!

STEM Facts

Computers run on binary code, which means that their software is written using only 1s and 0s.

The first computer game was created in 1961.