



"In the new global economy, states need a workforce with the knowledge and skills to compete. A key to developing these skills is strengthening Science, Technology, Engineering and Mathematics (STEM) competencies in every K-12 student."

NATIONAL GOVERNORS ASSOCIATION

"We are currently preparing students for jobs that don't yet exist, using technologies that haven't yet been invented, in order to solve problems we don't even know are problems yet."

R. RILEY, FORMER SECRETARY OF EDUCATION

"We must strive toward delivering a sustainable, improved world for future generations...that's why STEM Education in the Cherry Creek School District is so significant to us."

BUD AHEARN, SENIOR VICE PRESIDENT (RETIRED), CH2MHILL

"We are working together to create a shared vision of connecting business and education to ensure a robust supply of STEM talent to the labor market in Colorado and the world."

JOHN BRACKNEY, PRESIDENT AND CEO
SOUTH METRO DENVER CHAMBER, STEM-EC

"We can't solve problems by using the same kind of thinking we used when we created them."

ALBERT EINSTEIN

"Taking STEM classes has helped me discover my passion for science and bring out my full capabilities. It has given me an edge that will help me as I apply for college and compete for a job that will be both challenging and rewarding."

JERICHO OVIEDO, STUDENT

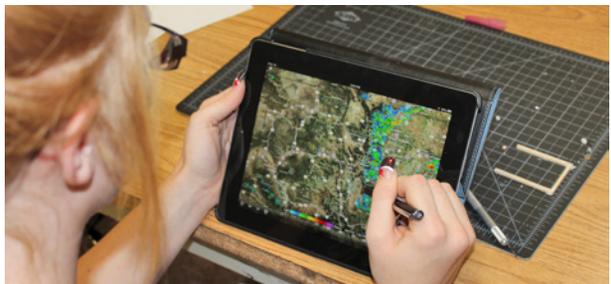
"Inspire students to dream the impossible, then give them the tools to make it reality."
RICHARD CHARLES, DIRECTOR OF STEM

Why Science, Technology, Engineering & Math Now?

- ▶ In 2008, one in four workers in America with a degree in science, technology, engineering, or mathematics was 50 or over. Lockheed Martin, an aerospace firm here in Colorado, expects nearly half its science and engineering workforce to retire by 2019 and will have to hire a total of 142,000 engineers. (THE ECONOMIST)
- ▶ Shortage of Math and Science teachers to reach 283,000 by 2015 (BUSINESS HIGHER EDUCATION FORUM)

STEM education is the key to ensure that our students have the competitive edge in the local and global workforce.

Our economic success will require us to focus on Math and Science as the future engines of innovation. Our challenge is to ignite the passion in our children to pursue STEM fields and provide them with the skills to successfully compete in a global workforce.



STEM Education in Cherry Creek Schools



Tomorrow's workforce educated today

Cherry Creek Schools



Dedicated to Excellence
Cherry Creek Schools

For more information about the Cherry Creek Schools STEM Program, call: **720.554.5605**
or visit: www.cherrycreekschools.org/stem

Our STEM MISSION

To inspire students to be creative, critical thinkers, and collaborative learners to successfully compete for Science, Technology, Engineering, and Mathematics careers in the global workforce.

Our STEM VALUES

- ▶ Inspire student interest and passion for STEM career paths.
- ▶ Foster creativity, invention, and critical thinking.
- ▶ Incorporate project-based, interdisciplinary curriculum supported through teacher collaboration and technology.
- ▶ Provide students with authentic STEM experiences including research opportunities and internships.
- ▶ Promote collaboration and partnerships in STEM fields among students, parents, higher education, and industry.

What is STEM?

STEM, which stands for **Science, Technology, Engineering and Mathematics**, is an interdisciplinary approach to teaching and learning, using rigorous academic concepts and real world experiences, to prepare students for success in higher education and an increasingly competitive global workforce.

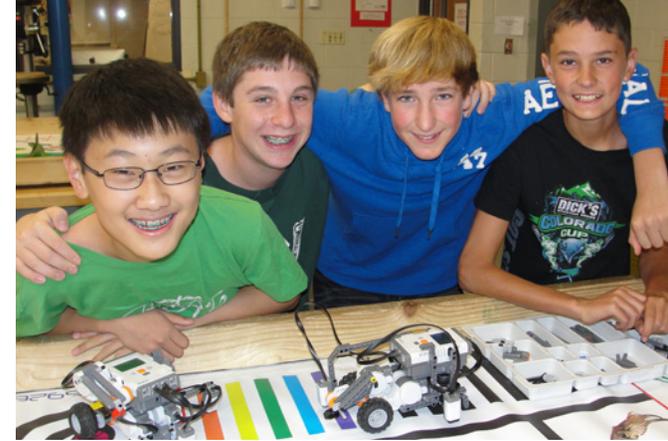
Why STEM?

- ▶ 70% of all existing jobs have a technical component and 90% of all future jobs will require technological knowledge. (CENTER FOR EDUCATIONAL POLICY AND ANALYSIS)
- ▶ Careers in STEM fields are the fastest-growing and highest-paying positions in the 21st century global economy. (U.S. DEPT. OF LABOR)

Our STEM Commitment

The Cherry Creek School District is committed to providing comprehensive, cutting-edge STEM Education in every school, for every student, so all students may engage in:

- ▶ Critical/creative thinking
- ▶ Collaborative problem solving
- ▶ Career exploration and preparation
- ▶ Using technology to create and communicate innovative solutions



Our STEM Partners

- ▶ **Community/Non-profit:** National Academy Foundation, Rotary Club of Aurora Foundation
- ▶ **Higher Education:** Colorado School of Mines, Community College of Aurora, Metropolitan State University of Denver, University of Colorado at Boulder, University of Denver
- ▶ **Industry:** Jeppessen/Boeing Corp., Lockheed Martin Corp., Merrick Corp., Northrop Grumann, Raytheon, Spalding Rehabilitation Hospital, United Launch Alliance
- ▶ **Government:** National Aeronautics and Space Administration (NASA)

CherryCreekSchools



NASA Photo

The Cherry Creek School District is implementing a plan to expand and enhance STEM Education for every student, in every school, at every level. The plan includes teacher training, new curricula, such as FOSS Science, new and renovated classrooms, essential technology, and enrichment experiences including research opportunities and internships.