"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

"Logic will get you from point A to point B. Imagination will get you everywhere else."

ALBERT EINSTEIN



DISCOVERY

RESEARCH

**E**NGINEERING

**A**CHIEVEMENT

MATHEMATICS

SCIENCE



"Inspire students to dream the impossible, then give them the tools to make it a reality."

Dr. Richard Charles, Director Office of STEM Education



Dedicated to Excellence Cherry Creek Schools



#### CHERRY CREEK SCHOOLS Elementary STEM Education



We believe that our world cannot survive without the next generation being prepared to innovate and lead with compassion in a global society.

#### Cherry Creek Schools



## Our MISSION

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

## 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 will:

- Do their own thinking
- Have meaningful experiences
- Create, innovate and collaborate
- Care about their learning
- Have a positive impact on their world
- Prepare for a bright future

## What is STEM?

Science, Technology, Engineering and Mathematics

STEM-focused teaching and learning instills a deep and extensive understanding of STEM content applied in real-world contexts. Students collaboratively engage in:

- Critical thinking
- Scientific inquiry
- Content knowledge application
- Engineering design processes
- Evidence-based reasoning and argumentation
- Effective written and oral communication



# CCSD Elementary STEM EXPERIENCES

- Animation & Design (Blender, SketchUp, 3D Printing)
- Computer Programming & Coding (Scratch, Hour of Code)
- Circuits (Makey Makey, Arduino, Rasberry Pi, Little Bits)
- Robotics (LEGO, Cubelets, VEX IQ)
- Robotics Competitions: Jr. First Lego League and First Lego League
- LEGO Story Starter, Build to Express and More-ToMath
- Space Science Near Space Balloon Launch
- Scientific Inquiry (FOSS)
- Math Structured Investigations and Open Explorations (Bridges)
- PBL Project Based Learning

#### For more information

contact the Office of STEM Education, Cherry Creek Schools at 720.554.5605 or visit <u>www.cherrycreekschools.org/stem</u>



## STEM Now?

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.

