



West Middle School Career Technical STEM Education!

DID YOU KNOW? West Middle School has a Career Technical Education (CTE) program for students?

What is CTE? Here is who we are and what we do!

Career Technical Education (CTE) STEM provides students of all ages with the academic and technical skills, knowledge and training necessary to succeed in future careers and to become lifelong learners. In total, about 12.5 million high school and college students are enrolled in CTE across the nation. For more information: [Colorado CTE Website](#)

WMS School Mission:

Students have a strong understanding of how to problem-solve and apply their learning to practical applications. Students are involved in learning that is problem-based and involves the integration of all subjects.

What CTE means for students at WMS

- Course offerings directly tied to career clusters for post K-12 college/career connections.
- Opportunity to visit with professionals from our CTE Business partners at WMS STEM events
- 8th Grade Spring Career Day with WCCC/CMU
- MESA STEM fieldtrips to Business Partner facilities
- Potential student Intern-For-A-Day opportunities, coming 2017-18.
- Support with up-to-date industry needs
- Alignment with high school CTE course offerings

WMS CTE STEM by the numbers - 2016/17:

- 1 Student Organization with 50+ students
- 4 Certified STEM CTE Educators*
- 5 CTE STEM Course offerings for students
- 5 Industry Partners
- 422 students participated in Hour of Code
- 92 students participated in STEM Day!
- 1 TackleSTEM Award Tour hosted by Denver Broncos
- 2 MESA Alums hired into professional STEM careers!

To maintain our STEM CTE Middle School:

- Continue to have certified STEM Educators
- Continue to have a variety of STEM course offerings
- Continue to have a CTE Industry Community Board
- Continue to support our CTSO (Student Organization) - MESA
- Continue to support students through elective and content offerings through Problem-Based Learning

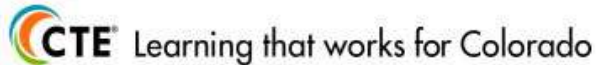
Coming in 2017/2018

- ★ National Geographic Training for GIS in the classroom
- ★ Hour of Code Training for teachers with classroom implementation
- ★ Increasing our partnerships to help support student Intern-for-a-Day opportunities.
- ★ School-wide MakerSPACE - Aviation Celebration Year!

WMS CTE STEM TEAM

Vernon Walker, Monte Riggle*, Heidi Ragsdale*, Mike Gregorich*, Alice Nikkel*, Therese Moran, Trent Hollister (CSU Extension), Korey Moore (DT Swiss), Peter Icenogle (Blythe Group), Sandy Menke (WCCC), Join us in 2017/18!!!

State of CTE in Colorado



Career Technical Education Works for Students

- Eighty-four percent of CTE concentrators in Colorado graduated high school in 2013,² compared to the national average of 81 percent³
- According to a national survey of CTE students, about one-third report having the chance to earn college credit, a certification or a degree because of their CTE coursework and two-thirds report having gained skills that will help them in the future.⁴
- About 40 percent of all postsecondary degree and certificates awarded in Colorado in 2010 were associate's degrees or certificates, nearly 35,000 in total!⁵
- About 27,600 students in Colorado participated in at least one Career Technical Student Organization (CTSO).⁶

CTE INCOLORADO

- ✓ About **96,000** high school students are enrolled in CTE
- ✓ About **51,200** postsecondary students are enrolled in CTE

Key Indicators of Success in Colorado: 2013-14 ⁷	
CTE Students Proficient in Reading, Language Arts	73%*
CTE Students Proficient in Mathematics	34%*
CTE High School Graduates Placed in College/Careers	97%*
Postsecondary CTE Students Earning a Credential, Certificate of Degree	60%*
Postsecondary CTE Students Staying Enrolled and/or Transferring	40%*
Postsecondary CTE Students Placed in Careers/Further Training	97%*

*Indicates that the state met or exceeded 90 percent of the final agreed upon performance levels for each indicator as negotiated with the U.S. Department of Education.

Career Technical Education Works for the Economy

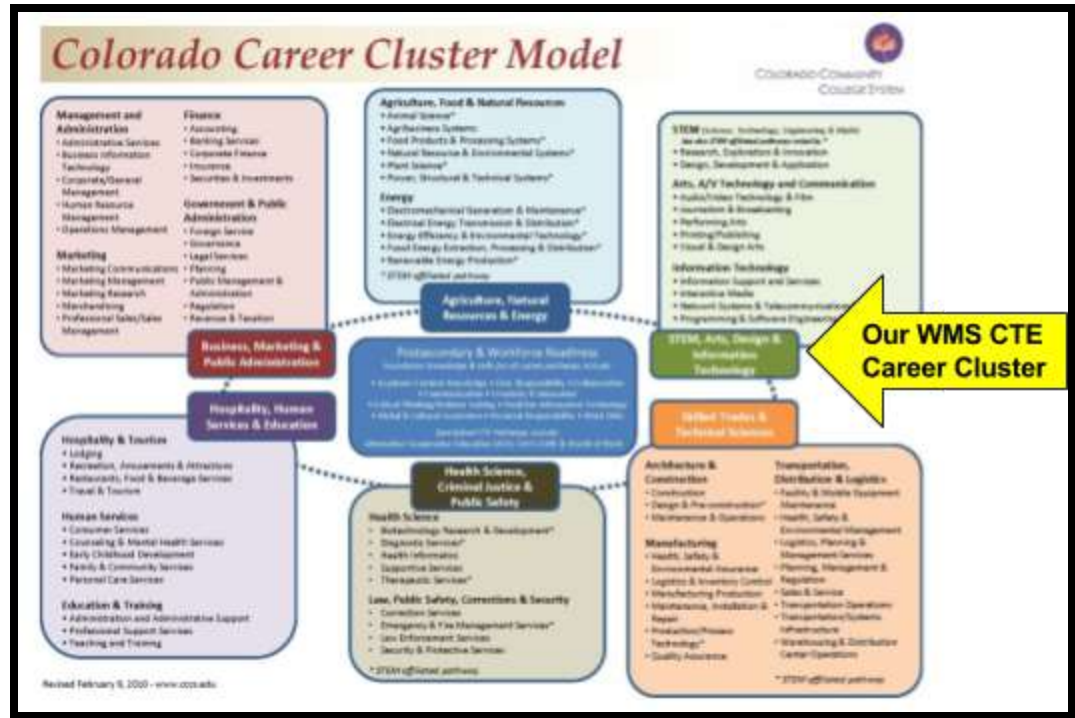
- Middle-skill jobs account for 50 percent of Colorado's labor market but only 42 percent of workers in Colorado possess the required skills,⁸ leading to a skills gap, which CTE can help address.
- By 2018, the Business Management & Administration Career Cluster⁹ is projected to be Colorado's largest cluster overall, accounting for 498,300 jobs, but Architecture & Construction will be the fastest growing, with jobs in this sector increasing by 37 percent.
- In all, Colorado will gain about 628,500 jobs, for a total of 3,188,000. About 60 percent of these jobs will require some education and training beyond high school including 312,000 certificates.¹⁰

If Colorado increased the number of citizens with certificates or associate degrees by 10 percentage points, the state would have:¹¹

- ↑ \$965 higher median per capita income
- ↓ 9,500 fewer unemployed individuals
- ↓ 32,700 fewer individuals living in poverty

Career Technical Education Works for America

- \$168 BILLION** = Estimated lifetime gain from CTE's impact on reducing the high school dropout rate.¹²
- \$806 BILLION** = Estimated income added to the U.S. economy by community colleges.¹³



Date	Event	Event Description	Opportunities/Notes
April 10th	8th Grade Career Fair at Colorado Mesa University	Students can explore different career options	Spots for business partners available. Contact Alice.Nikkel@d51schools.org
April 24th	MESA Program EggDrop Competition at CMU 11:00 - 2:00	District MESA will drop their egg droppers from CMU Crane.	CMU Campus Main Quad
May 16-17	Resilience Cafe Student Presentations at CMU 5-8pm	Students will showcase their public "How am I Resilient"	CMU Education Department
May 19	Weather/Climate Invention Convention Maker Faire	Students will showcase their weather/climate research and air quality inventions.	Judges needed. Contact Heidi.Ragsdale@d51schools.org if available to help.
May 18-24	8th grade Guitar Project Showcase	Students will be finishing up their Technology Education Guitar Electronics Project	Stop by and Visit our classes anytime!

For more information on CTE STEM at West Middle School, Please contact:

- Heidi.Ragsdale@d51schools.org
- Monte.Riggle@d51schools.org
- Mike.Gregorich@d51schools.org

