

# STEM *at a glance*

**STEM students:** 172 are involved in STEM at CHS, including 24 student engineering interns.

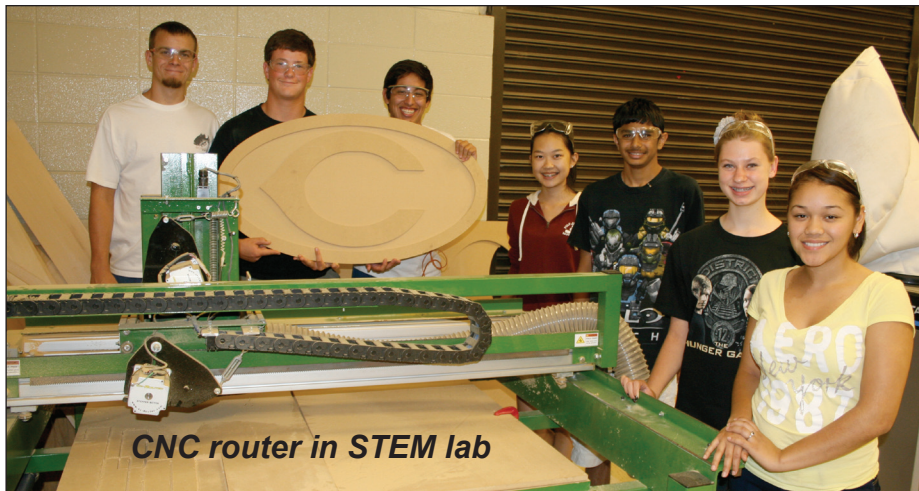
**STEM coursework:** In addition to the math and science units of study required to graduate, all high school students have the opportunity to participate in the following connection course offerings which make up the Engineering Pathway: Foundations of Engineering and Technology; Engineering Concepts; Engineering Applications; Engineering Internship.

**Professional development:** All CHS STEM teachers have participated in STEM professional development within the last year. CHS STEM staff

continues to attend national and state conferences as well as participates in professional development provided individually and in group settings by the Carrollton City Schools technology coach and West Georgia RESA. Our STEM teachers also deliver professional development to others; a presentation is scheduled Feb. 11 at the West Georgia RESA STEM Conference and a presentation was made at the GACTE Summer Conference in July.

**Business and community partnerships:** In addition to an active systemwide STEM Advisory

Board, CMS has established partnerships with Southwire, North America's leading manufacturer of wire and cable used in the distribution of electricity. Each semester, 24 student interns are placed at Southwire Engineering Academy where they work directly with the industry engineers to solve problems, think logically and articulate one's learning as they work to find viable solutions to industry / real-world related projects.



**STEM lab:** CHS has a fully-operational STEM engineering lab equipped with the following items: Intellitek Rec. program, Vex Robotic components, AutoDesk Design Academy software, Learn-Mate Learning

Management System, CADD computers, CNC Mill technology, Lifesize HD video conferencing equipment, Interactive whiteboard, digital projector, student/teacher sound system, student response system, document camera, DVD recorder, blue tooth slate, SCORBOT package, lazer drill press, delta band saw, delta dust collector, material testing with buster, large / wide format printer, Vexnet Adapter Key , Omni Directional wheel, Turntable bearing kit, CNC router,

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# CARROLLTON HIGH SCHOOL

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Dimension Rapid Prototyping Machine, and LearnMate Lab laser pro-engraver.

**STEM camp:** For the past two years, CHS STEM teachers and students have offered a STEM Camp for students in grades 1-6.

**Co-curricular teams:** TSA VEX Robotic and ROV teams are highly competitive.

## **Co-curricular competitive team awards:**

- VEX Robotic Competition – Won the Think Award
- VEX Robotic Qualifier, Forsyth County – Tournament Champions, won the Excellence Award
- Georgia TSA VEX Qualifier, Athens – 2nd Place, qualified for the TSA Nationals
- VEX Qualifier, Savannah – Tournament Champions
- Grey's Reef Southeast Regional ROV Competition, Savannah – 1st Place, qualified for International Mate ROV Competition
- VEX World, Orlando, Florida /International MATE ROV competition/NASA, Houston, Texas-3rd Place
- West Georgia Technology Fair- Eight 1st Place winners in the areas of robotics, programming, 3-D modeling, and spreadsheet design
- Region Science Fair- 3 grand prize, 3 first-place, 2 second-place and 1 third-place winners (4 have qualified to compete at the state.)
- MATE Southeast Regional Competition (April 2012) - Finished 1st in the Ranger Division and

qualified for Internationals in Orlando. The CHS team received the award for Most Professional Team (4th consecutive year to receive 1st place in this event).

## **School STEM awards/ accomplishments:**

- AP STEM School (2nd year)
- AP Stem Achievement School (2nd year)
- Technology Association of Georgia STEM finalist for High School programs
- Technology Association of Georgia STEM finalist for Public-Private Partnerships
- Letter of a commendation from Georgia Gov. Nathan Deal for CHS ROV competitive team placement in international competition.
- Presentation and recognition at the Georgia State Board of Education for outstanding STEM program.
- Presentation and recognition at the Georgia Association for Career and Technical Education summer leadership conference
- Presentation at the International Technology and Engineering Association Annual Conference.
- Presentation at the Georgia Association of Curriculum and Instructional Supervisors (GaDOE-Curriculum Director's) annual conference.
- Presentation at the Rotary Club of Carrollton
- Presentation at West Georgia RESA in January
- Featured article: This is Not Your Father's Tech Plan in Technological Horizons in Education – THE Journal, June/July 2011
- Feature article: STEM Class Harnesses Collaboration to Inspire Students – Tech Directions magazine, January 2012
- Title II D STEM Lab Grant Recipient



**Southwire Engineering students partial reel app icon**

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