



GOVERNOR'S STEM ADVISORY COUNCIL

dedicated to building a strong STEM education foundation for all Iowans

Iowa STEM BEST® Programs of the Governor's STEM Advisory Council

2014

Bettendorf/Pleasant Valley: Bettendorf and Pleasant Valley School districts are developing an internship Academy structure with local business on authentic computer science problems and solutions.

Cedar Rapids/College Community (or Iowa BIG): Iowa BIG is an option for earning core academic credit through project-based learning in real-time with 100+ partners from business, nonprofit, and government agencies.

Kirkwood CC/Univ. of Iowa/Clear Creek Amana/Iowa City/Regina/Solon/Tipton/West Branch/College Community: STEM Innovator course offered at the Kirkwood Regional Center at the University of Iowa research park open to students from seven partner school districts to engage with STEM industry partners to develop solutions to problems of student and community interest. Students earn high school, Kirkwood Community College, and University of Iowa credit.

Northeast Community School District in Goose Lake: The Northeast STEM program provides students with an innovative, problem solving, and discovery-based environment created in partnership with Lyondell Bassell that focuses on authentic, real-world problems through the infusion of technology and curriculum.

Rock Valley (or Rocket Manufacturing): Rocket Manufacturing is a fully-functioning, student-run manufacturer that works with local businesses by crafting metal machined parts and tools that businesses or individuals request. Students do the marketing, accounting, design, production and customer communications as well.

2015

Iowa BIG North: A four-district consortium of Charles City, New Hampton, Osage and Rudd-Rockford-Marble Rock opted to brand as Iowa BIG North. Partners include Zoetis, Cambrex Corporation, Valent BioSciences Corporation and more, to immerse high school students in a half-day professional-based learning model

Hoover High School, Des Moines: Hoover High School's STEM BEST program pairs students with higher education partners Grand View University, ISU's Center for Biorenewables in Chemistry (CBiRC) and local businesses Accumold, DuPont Pioneer, EFCO, Storey Kenworthy, and United Way of Central Iowa, to provide students with opportunities to conduct research at a university or a business.

Davenport Community School District, Davenport: Davenport Community School District's "INSPIRE" program partners with local businesses MA Ford, Alcoa, Phoenix Closures and more, to immerse high school students in the business environment and explore manufacturing curriculum and pathways in their community.

2016

Assumption High School in Davenport: The school works with Victory Enterprises to develop a Virtual Reality STEM Career Exploration program for students that introduces them to STEM careers in Iowa and across the U.S.

Boone Community School District: Boone CSD is implementing a grades 3-12, work-based learning continuum of awareness (early years), exploration (middle years) and training (high school) in partnership with a variety of employers and higher education institutions. *Boone CSD is one of four schools piloting a Quality Pre-Apprenticeship, building on grades 10-12 work-based learning experiences. They offer semester-length, project-based opportunities through the School Career Connections and vocational rehabilitation programs initially in plumbing and electrical fields in partnership*

IOWA GOVERNOR'S STEM ADVISORY COUNCIL

Operations Center • University of Northern Iowa • 214 East Bartlett Hall • Cedar Falls, Iowa 50614-0298
Telephone: 319-273-2959 • Fax: 319-273-2779 • E-mail: info@iowaSTEM.gov • www.iowaSTEM.gov

with Kruck Plumbing & Heating Co. (a Registered Apprenticeship Program) and ABC of Iowa Apprenticeship & Training Trust. A goal is to expand these options with the growth of community apprenticeship partners over time.

Fort Madison Community High School: Students experience co-taught STEM courses of educators alongside industry partners in innovative learning spaces that introduce them to careers in their community, leading to job shadows and internships.

IKM-Manning Community School District: A learning environment focused on two important employability skills – communication and problem solving – where students, teachers and community leaders come together to brainstorm business project ideas and pursue them on teams.

Muscatine Community School District “STEAM Into MCC”: Fourth and fifth grade students in all of Muscatine’s elementary schools take part in a five-month-long, afterschool program of hands-on projects led by community experts, held at MCC. *Muscatine CSD with MCC is one of four schools piloting a Quality Pre-Apprenticeship. Their program in the Manufacturing and Culinary Arts Academies is in partnership with MCC and aligned to the Iowa Core, leading to certificates in electronics and up to 38 credits toward an Engineering Technology Electromechanical Diploma (manufacturing pathway); or certificates in culinary arts and up to 32 credits toward a Culinary Arts Diploma. Partners are Chef Brad Scott for the culinary pathway, and companies HNI and Allsteel for the manufacturing pathway. All three are engaged in Registered Apprenticeship Programs.*

North Cedar Elementary School in Cedar Falls: Students work hand-in-hand with Sidecar Coffee (local chain) to learn about the science of roasting and brewing coffee in order to create their own product and market it to the community.

Spencer High School: Students travel to workplace sites for training and experiences that align with the community’s industry demand in construction, health care, manufacturing and entrepreneurship. *Spencer High School is one of four schools piloting a Quality Pre-Apprenticeship. Their program expands on the Construction Extended Career Experiences whereby students are at the job site receiving on-the-job training for an average of 12.5 hours a week. They also achieve their 10-hour OSHA certification in concert with the Quality Pre-Apprenticeship. Established Registered Apprenticeship Program partners include Milford Electric and Midwestern Mechanical.*

Story County Consortium: Eight school districts in the consortium, including Ames, Boone, Ballard, Collins-Maxwell, Colo-NESCO, Gilbert, Nevada and Roland Story, join forces to create a shared STEM BEST model that provides students with work-based learning opportunities with businesses in their communities.

Waukee APEX: Through a collaboration between education, business, and the community, Waukee Aspiring Professional Experience (APEX) develops highly skilled, adaptable, global innovators and leaders. Waukee APEX draws on the expertise of Des Moines-area business partners to bring real-world experience to high-schoolers. Through passion-based learning, authentic projects and experiences, students add value to business partners while exploring career possibilities identified by economic trends within their metro area and state. *Waukee APEX is one of four schools piloting Quality Pre-Apprenticeships. Their program guides high school seniors in learning past the initial APEX course in the manufacturing, construction and technology fields. Students will gain valuable experience, earn credentials and college credits and connect to business partners in the community. Waukee APEX’s dissemination plan has been well-tested as a STEM BEST premiere model site for schools across Iowa.*

West Delaware County Community School District: Students work directly with business leaders in the community to design and implement authentic projects for that business that also satisfy and align with state standards and teach students the professional skills necessary in the industry.