

STEM BEST: Iowa BIG North

Businesses Engaging Students and Teachers

Affiliated School Districts: Charles City, New Hampton, Osage and Rudd-Rockford-Marble Rock

Partnering Businesses/Higher Education: 5-Star Coop, Art of Education, ATEK, BLDD Architects, Cambrex Charles City, Caring Connection, Charles City Area Development, Charles City Press, Floyd County Medical Center, Croell, Inc., First Citizens National Bank, Fox River Mills, Hy-Vee, Light Plant, Mercy Medical, Mitas North America, New Hampton Area Development, New Hampton Economic Development, New Hampton Municipal, New Hampton Tribune, Osage Municipal Utility, Reicks View Farms, Thor Manufacturing, Tri-Mark, Valent BioSciences and YMCA of Floyd County.



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1. What is the goal for your STEM BEST program?

Floyd, Mitchell and Chickasaw counties are home to several companies with a national or global reach, especially in the sciences and manufacturing. The strength of our STEM BEST program comes from opening up opportunities for students to engage with those businesses regardless of where they live or go to school. Students also are seeing beyond the orange, red, green, and blue that traditionally have separated us and now are collaborating with students in other districts as they enhance their own learning. The Iowa BIG North program is opening students' eyes to that and allowing them to see that they don't have to move to an urban area to find a satisfying career.

2. How many and what type of students participate in your program?

Currently, between three of the districts there are 36 students involved in Iowa BIG North, including a near 50/50 ratio on male to female representation with 13 of them being seniors and 23 are juniors.

3. Describe the physical environment of your STEM BEST program, including how it differs from standard classrooms.

Charles City, New Hampton and Osage each have a dedicated space for the Iowa BIG North program. In Charles City, students have completely transformed an art room in the former middle school building to contain collaborative areas, two conference rooms and an office where students work on their projects. New Hampton has rented a location on Main Street that is connected to a retail business and will be renovated to create a shared workspace environment that can accommodate local entrepreneurs and serve as a business incubator. In Osage, they are housed on the second floor of the Osage Municipal Utilities building with a variety of settings that will allow for large group, small group and individual work to be completed.

4. What specific roles do business, community and higher education partners play in your STEM BEST model?

They provide opportunities for job shadowing and guest speakers. They have given tours, met with initiative teams and are available to provide advice on specific projects. Many are discussing the possibility of being available at our workspace on a weekly basis to provide leadership and being a resource for our students.

5. What professional development has occurred to prepare educators for instruction in your STEM BEST environment?

The dedicated staff put in countless hours before the year began. We have presented to multiple businesses and interested community members during the summer months and continue every time we are asked. Our consortium sent a total of six teachers to spend a week at Iowa BIG in Cedar

Rapids in November 2015 and October 2016 for immersion training. Observing students and staff in an engaging environment where student passions discover and solve real-world problems for authentic audiences was amazing.

6. What indicators of growth are evident so far in the program?

Students and parents continue to inquire about it on a weekly basis. We are confident that the program is going to grow and our projected number is to double within our first year. We get calls weekly from businesses that want to "pitch" to our students. At this time, we have 14 live initiatives and that is more than our current teaching staff can monitor and truly be involved in.