Boyce Middle School near Pittsburgh, Pennsylvania received one of the 2016 Active Learning Center Grants from Steelcase Education. Matt Henderson, a 20-year veteran teacher with a background in math and science, teaches the STEAM (Science, Technology, Engineering, the Arts, and Mathematics) Design class. The National School Boards Association just named Henderson one of “20 to Watch” educators. The award identifies emerging education technology leaders who have the potential to impact the field for the next 20 years.

Henderson talked to 360 about the difference active learning can make for students.

360: Why is active learning an important part of your pedagogy for student success?
Matt: Active learning allows engagement to happen naturally and at a much higher level. When students are engaged, their minds are open to learn new things at a much faster rate. I try to have my students active as soon as they enter the Active Learning Center. I have them for a short period of time and the more active they are, the more I am able to have them experience the important opportunities and possibilities of a STEAM Design education.

360: How do you put active learning into practice in your STEAM course?

Matt: We don’t waste any time! From the moment they walk into the Active Learning Center classroom, I have the students using their hands and minds to tinker, make and engineer. The students engage in many hands-on activities that allow students to use the design cycle naturally.

ACTIVE LEARNING CENTER GRANT

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360: You talk a lot about Think, Make, Share in the classroom, but also Think, Make and Fail. Can you tell us about your approach to failure and how it can contribute to success?

Matt: Failure is a word that students find uncomfortable. My hope is that students realize in order to make, create, design, or engineer anything new, failure is in their future. The more opportunities students have to learn to deal with and confront failure, the more comfortable they will become with the process of pursuing new ideas. The students quickly begin to realize you can learn more through failure than success. The natural human side effect of failure is frustration and this too can become a lesson. Students have the opportunities to practice and learn determination and persistence.

“I truly feel that the Steelcase Active Learning Classroom is going to start an entire movement of new makers and creators in our community.”

360: As the STEAM teacher, what’s your favorite part of the new Active Learning Classroom? How does it compare to your previous classroom?

Matt: My favorite part of the new classroom is having the opportunity to show students that they are capable of more than they realize. With more opportunities for engaging hands-on learning activities, I am able to have students see their success and failures at a much faster rate than in my previous classroom settings. I am able to push them further than they ever thought possible.

360: What differences have you seen in your students since the installation of the Active Learning Classroom?

Matt: The students are extremely excited to enter the classroom and very disappointed when they have to leave. When I hear students say that they would rather stay in STEAM class than go to lunch or recess, I know that I have done my job. The enthusiasm the students have to create and make is so exciting to see. I truly feel that the Steelcase Active Learning Classroom is going to start an entire movement of new makers and creators in our community and spark interest in the fields and professions of STEAM education.

360: Have there been any unexpected surprises since the installation of the new classroom? Anything you didn’t know you’d use as much?
Matt: The Buoy stools!!! The students love these stools. There isn’t a day that goes by that a student doesn’t ask, “Where did you get these?” Since I only have four, I rotate the students each class, so they all have a chance to sit on the stools at least once.

360: What are your goals for the future of Active Learning Classrooms in your school or in the district as a whole?

Matt: We are hoping to extend the active learning experiences into other buildings in our district. Since we are offering STEAM Design class in our 5th and 6th grade middle school, we are looking to have this happen at our 7th and 8th grade middle school as well. We have a very well established STEAM Design program at our high school and one of my professional goals is to spark an interest in my younger students in STEAM Design and have more students enroll in the high school classes in the future.

The application period for Cycle 4 of the ALC Grant begins on Friday, December 1, 2017 and will remain open until Friday, February 2, 2018.

Rebecca Charbauski
Senior Communications Specialist

Rebecca, an Emmy-winning journalist, reports on global research impacting the places where people work, learn and heal. Over her career, Rebecca spent 17 years covering local and national news events on television and a variety of digital platforms. She directed a digital news group in Kansas City for three years before becoming news director in Grand Rapids, Michigan for more than five years. Prior to Steelcase, Rebecca worked with one of the four largest media groups in the United States to coordinate news coverage among 48 newsrooms from the east to west coast.