



EDUCATOR PROJECTS AND IDEAS

Transforming Spaces & Practice: A closer look at Baldwin STEM Middle School

PAST Foundation is proud to support schools as they create teaching and learning that best supports all students. The School Design Team has had the honor to work with Baldwin STEM Middle School, In Reynoldsburg, OH, for the past three years. During this time, the Baldwin team has imagined, designed, and created teaching and learning opportunities that have truly transformed experiences for their students.

Transforming Space

From the outside, Baldwin STEM Middle School resembles a typical school. However, as you walk into the school, you immediately recognize this is not a traditional school. The numerous decisions the team and students have made to showcase the students' STEM experience at the middle level is evident throughout the building. This transformation began with reimagining the traditional library to become a space the staff and students now call *The Foundry*. This redefined space was catalyzed by an idea to provide middle school students an opportunity to learn within a maker space. A lead teacher for Baldwin, Sandy Guinto, envisioned an opportunity to build a math course that would utilize the maker space tools and build a pipeline for students to transition into the high school level Fab Lab. Her course "The Art of Math," students have an opportunity to learn and reinforce math content standards through the lens of design and art.

The goal of spaces like *The Foundry* at Baldwin "are meant for all of the teachers and students to work in the right space for the right project," says Guinto.

From the development of *The Foundry* spurred the excitement of the Baldwin community to rethink various learning spaces to suit the needs of their students. The team has since developed a Literacy Lounge, a coffee shop-esque space for students to read, hold poetry slams, and collaborate. The Robotics & Design Lab, referred to as "the R&D site for the school", where students play with Arduinos, build robots, and learn about the future of technology in their lives. The team built a Networks course and space that builds a middle level computer science model. They have a STEM Outdoor Innovation Lab (SOIL), an outdoor and indoor hands on learning space to understand sustainability and growth concepts, led by Rob Niedermeyer. In 2017-2018 the school will open a space call The Garage, a dedicated sciencelearning lab for students to explore concepts of force and motion by building their own bicycles! These spaces are part of a larger plan as Baldwin STEM middle school redefines the middle school experience by providing students space to build real solutions for real problems.



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Entrances to The Foundry learning space! (Source: PAST Foundation)



Transforming Practice

Baldwin teachers have been designers of various project- and problem-based learning opportunities for students. Authentic teaching and learning experiences are central to the Baldwin STEM Middle philosophy, which is centered around building experiences in which "all students can learn and grow" and a system meant to "build a generation of innovators", these are just 2 of the reasons the Baldwin team will cite when explaining their commitment transforming practice.

As you walk around Baldwin and speak to the staff, you sense the commitment and dedication to students. A science teacher, Seth Dunn shares how "these spaces and courses are meant to allow students to have more agency in their learning." Seth and his fellow science educators have spent a significant amount of time building problem-based learning science courses to pilot for the 2017-2018 school year. The team plans to continually examine their practice and build learning spaces to support learning that will move their students towards high-level design and innovative thinking.

Whole School Effort

Baldwin STEM Middle School Principal, Michelle Watts, knows that it takes the whole school community and a culture shift to accomplish this type of work. For three years, the team has actively engaged parents by sharing goals and garnering feedback as teachers and staff work to design learning experiences and spaces that are meaningful for their 5th-8th grade students. Baldwin staff works to continually build community with their students and families. One way they are working to foster this community and citizenship is utilizing their Habits of Mind throughout the school and beyond (see photo below).



The Habits of Mind signage is visible all over Baldwin STEM Middle School. Source: PAST Foundation

Students collaborate and work as editors in the Literacy Lounge! Source: @BR_STEM via Twitter.



STEM Middle at BRUH INDR_STEM · Mar 4 7th grade Editor's Cale last week pic.twitter.com/Tkr88F96mU

The habits were developed with the students in 2014 - 2015 to showcase the characteristics of successful people. The staff, students, and families were engaged in developing a dialogue around how to best build a school and system that fosters the best in each student and community member. The school then developed a plan to continually reinforce the Habits of Mind within their practice and their building.

Everyone is a member of the Baldwin community, and the expectations and belief are visibly shared throughout the building. These habits are an important aspect for how staff and students live within their new school spaces. The utilization of Baldwin Habits of Mind are continually modified and revisited to strengthen community and ensure student success.

What's next for the Baldwin Team?

The team is proud to share that designing never stops! For the 2017 – 2018 school year, the Baldwin team hopes to build upon their successes, and modify from lessons learned. They will continue to design and build Transdisciplinary Problem Based Learning instructional strategies. The lead science educators are working as a team to build quarter-and semester- long problem based modules that range from learning about fish ecosystems to aviation technology. Their grade level teams continue to collaborate and build with authentic problems as students have an opportunity to work through projects and develop products as evidence of learning. Everyone continues to build partnerships and experiences that are real for students. This year, the whole school is piloting a weeklong immersive experience for students, which they hope to continue in the coming years! What is next for this team? Anything that is truly centered around and driven by what is best for their students!

If you want to learn more about Baldwin STEM Middle School, check out: <u>http://www.reyn.org/stemmiddleatbrjh.aspx</u>

And, follow the Baldwin team on Twitter: <u>STEM Middle at BRJH</u> <u>@BR_STEM</u>