

BETTER PLACES TO GROW: REDESIGNED SPACES ARE THE NEXT FRONTIER FOR FUTURE-DRIVEN LEARNING

Penn Hills, Carlynton, and Brownsville Area

Outdoor classrooms. Media and maker centers. Innovation hubs.

As hands-on, project-based learning plays an ever more central role in education, three Western Pennsylvania school districts are ensuring that learning happens in spaces that foster collaboration, creativity, and more.

In the Penn Hills School District, this means that a student named T.J. is busy using the high school's new entrepreneurship center — home to a design studio, computer lab, and retail space — to develop his own apparel brand.

In the Carlynton School District, it means turning a shop space into an innovation hub where students can do everything from recording podcasts to experimenting with robotics and holograms.

And in the Brownsville Area School District, an outdoor classroom is just one new space designed to pave the way for deeper immersion in literacy and environmental science.

The common theme is this: These districts have renovated and redesigned spaces based on what their students need. As members of Future-Driven Schools, a regional alliance of districts working to prepare every student for tomorrow, they're innovating today with learners' futures in mind.

Carlynton: Beyond the classic "makerspace"

The leaders of the Carlynton School District agree that traditional makerspaces are great — but in some ways, they're just the beginning.

Like many districts, Carlynton has long had an area called The Shop, designed to help kids create things.

But now, with technology changing so quickly, the area is becoming a place that supports an even broader definition of creating.

"We plan to have sound-insulated podcast stations that allow students to record while other classes continue instruction nearby," says John Kreider, Carlynton's superintendent. "The goal is to create authentic opportunities for students to communicate, collaborate, and share their learning with an audience."

Why podcasting? This work is part of a writing curriculum that focuses on critical thinking and sharing learning out loud. The act of creating a great podcast produces better communication skills, and students pick up marketable technology skills along the way.

A new, on-site production studio is on the way, too. "We are preparing our students for careers that increasingly rely on creativity, technology, and problem-solving," says Kreider. "What we're talking about is Disney meets Star Trek."

There are also plans for a Creation Station, where students can design 3D images, develop art skills, and use coding to build holograms. This will spark kids' creativity and build fluency with emerging technologies, including AI-supported tools. And it may provide new ways for students — particularly English language learners — to practice communication skills in interactive environments.

The plans go beyond adding cool tools in cool spaces, says Kreider. On the contrary, it's important to keep clear learning goals front and center.



"Listen to your students and keep the focus on purpose," particularly when it comes to AI, he advises. "Our goal is not just to develop familiarity with technology, but also the ability to use it responsibly and effectively to solve real problems."

And if we're asking kids to be creative, he adds, it helps to design spaces that are genuinely appealing. "Aesthetics is just as important as equipment, and it has to align with the learning environment. A well-organized, welcoming space supports student engagement and helps maximize the impact of instruction."

Brownsville Area: Inspiring spaces for literacy and writing

The Brownsville Area School District's approach to design, grounded in the principles of the district's Portrait of a Graduate, includes a major focus on literacy.

The district's buildings are situated on a shared campus. So the high school's "super dated" library is being transformed to include a writing lab that's available to students from all grade levels, says Kristin Frey-Martin, the district's superintendent.

In addition to hosting classes, the space will be stocked with high-interest reading materials and additional resources, and an instructor will be on site at various times for drop-in writing coaching. Eventually, the plan is to have an educator stationed there all day long.

Students who are taking college-in-high-school courses from West Virginia University and PennWest University will also be able to drop in to use the writing lab and have access to an educator. "We want

them to feel very at home there, and use the space almost like at a college campus," says Frey-Martin.

New ideas keep emerging: Assistant Superintendent Andrea Costabile says a great addition to the writing lab would also be peer tutoring. That's another way that this formerly outdated library can become a modern hub that supports the district's literacy priorities and inspires students to develop a love of reading.

"Through the screening process that is embedded into our literacy initiative, we have determined targeted areas of weakness that are currently being addressed," Frey-Martin says. "This is driving academic decision-making with regard to prioritizing reading fluency."

She cites a lawsuit filed elsewhere in the country in which a student claimed that although she earned a 3.87 GPA, she could read only at an elementary level.

Frey-Martin is determined that all Brownsville Area students will have strong literacy skills, because reading and writing is being threaded through their curriculum and embedded into inspiring physical spaces like the new writing lab.

"We're looking at structural redesign, and not just a standalone initiative with regard to our Portrait of a Graduate," Frey-Martin says. "So, we are intentionally building some learning environments that promote more of that inquiry-based learning for our students."

Penn Hills: Redesigning spaces, redesigning outcomes

The Penn Hills School District has a name for its elementary school: The PHactory. It's a place where things are made and hands-on STEM learning is a priority.

The school's makerspace is positioned at the building's entrance rather than in the back of the building so that everyone can see the creative work happening there every day, says Matt Dado, the district's director of technology and innovation.

"That placement says everything about who we are — a district where students

are creators, not just consumers," Dado says. "We want that work to be visible, celebrated, and impossible to ignore."

It's working. Teachers walk by, see another teacher's approach, and get inspired. Students who see their peers creating feel motivated and empowered to conceive their own creations. In plain sight, abstract ideas become tangible, physical items.

Parents, too, see what's happening every time they visit.

The makerspace's primary material is inexpensive and plentiful: It's cardboard, much of it recycled, which is easy for young kids to work with. (Pitching in to help, Dado and other school leaders often show up in the morning carting empty boxes that they've brought from home.)

Meanwhile, at Penn Hills' Linton Middle School, the library is now a media center that includes an esports area with 15 big-screen TVs and gaming chairs. Its presence has increased excitement about being in the school building, which the district's leaders say is part of the point.

"We need to foster an environment that draws students to school each day," says Superintendent John Mozzocio. "We want them to be here, and we know a lot of our students love esports."

Lastly, Penn Hills High School now includes the newly designed PHorge Academy, where teens find career pathways and a focus on workforce development. Potential career tracks for high schoolers include nursing, information technology, entrepreneurship, and robotics, with instruction for each happening in spaces designed for specific learning goals.

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That was the thinking behind the high school's library-based entrepreneurship hub, with its design studio, computer lab, and retail shop. The space and the curriculum have teachers and students genuinely fired up, Dado says.

He recently spoke with a teacher who has been mentoring a particularly entrepreneurial high schooler. The teacher's enthusiasm was bubbling over when he ran into Dado in the hallway.

"He said, 'So I'm going to order all this stuff and we're going to get T.J. set up, so he has everything he needs to really get out there to start selling his stuff,'" Dado remembers. "We have a set curriculum, but the teachers are working beyond it to really help these kids and provide those experiences."

At each of these districts, students are creating, learning, and growing in spaces that have been reimagined to help them make things — and, in the process, to set them on paths toward making their dreams a reality.

