



# AT PURCHASE LINE, A PASSION FOR LEARNING PICKS UP STEAM

**T**iffany DeStefano wasn't surprised when an elementary schooler asked for advice on building a pair of wings.

The child understood that her wings wouldn't actually fly. But the hours she'd spent on engineering projects at school had inspired her. She wanted to design and build a wearable contraption that operated like the wings of a real bird.

As STEAM learning coordinator at Purchase Line Elementary, DeStefano was ready with encouragement. She coached the student without giving explicit instructions. The student trusted herself to tackle the challenge.

"On her own time," DeStefano says, "she researched the bone structure of winged animals to design the support. Then she tested different materials to make sure the wings were strong enough but not too heavy to wear."

It was a moment like many at Purchase Line, where activities that seem small and a little on the edge are actually squarely in the wheelhouse for teachers working to build future-ready skills.

Day by day, the child shared regular updates, including details on failed attempts. As she does in the school's

creative space – a sun-filled room known as the STEAM Lab – DeStefano reinforced the idea that creative problem-solving is all about "failing forward" and embracing trial and error.

"In the end, she was successful and satisfied with her creation," DeStefano says, sounding proud but not at all surprised. After all, this passion for learning is what the STEAM Lab was designed to spark.

"We really try to focus on the 21st-century skills – those four C's, communication, collaboration, creativity and critical thinking skills," she says. "It really gives the students ownership over their learning and inspires kids to continue learning outside of the school. They're always coming to me and sharing things that they've researched or an experiment they've done."

## BUILDING FOR THE FUTURE

Purchase Line participates in the Western Pennsylvania Learning 2025 Alliance, a regional cohort of school districts working to create student-centered, equity-focused, future-driven schools. Led by local superintendents and AASA, The School Superintendents Association, the Alliance convenes for workshops, networking opportunities, and professional development.

All of the districts within the cohort are grappling with a key question: What does it mean to truly prepare students for the future? At Purchase Line, the STEAM Lab is one piece of the answer.

This year, DeStefano has been collaborating with the school's other elementary teachers to make the most of the STEAM Lab. Pre-K through sixth grade teachers are finding creative ways to use the facility's resources, which range from simple items like paper, popsicle sticks, and balloons for engineering challenges to 3D printers, robots, and video production equipment.

Kids are clearly responding, and even visiting on their own during recess. "I have kids running down here saying, 'I want to try this!' or 'We have this idea!'" DeStefano says.

Even the youngest students have had epiphanies. Earlier this year, the second grade was challenged to build the tallest possible towers out of sticky notes. Some kids began folding their paper right away, and even tearing it to make new shapes.

But DeStefano says other students took a bit of time "to realize that they could fold the sticky notes and that they didn't have to stay flat. That was eye-opening to me as a teacher. It helped me see: They don't realize they can manipulate things. We can teach that."

These small discoveries happening at the STEAM Lab — everything from studying decomposing Halloween pumpkins to designing imaginary cameras that can be lowered into imaginary volcanoes serve a larger, long-term purpose.

As Purchase Line students expand their future-ready skills, they're building a foundation that can help students arrive at high school feeling prepared. And that's when they can begin discovering how they might want to use those skills to pursue a specific career.

## FORWARD PLANNING

The team at Purchase Line is already busy planning for that moment, says Jessica Lindsay, director of curriculum and innovation.

The administration and high school teachers have begun creating a menu of nine-week courses exploring a wide range of career options. Due to roll out next year, these classes may include a case law mini-course for students curious about law careers and an introductory computer science

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mini-course for students who think computer coding might be for them.

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That way, Lindsay says, they can see if they're interested before they jump into a job or reach college and end up changing majors or dropping courses.

As DeStefano works with her students, she can envision them in those classes. It won't be long before they are high schoolers tackling bigger and more complex

challenges with skills they built in the STEAM Lab.

It may look as if today's Purchase Line elementary schoolers are simply building towers out of sticky notes and designing wearable bird wings out of their imaginations. But these creative projects are preparing them for the 21st-century challenges that lie ahead — challenges that the real world presents, and that their education at Purchase Line can help them rise to meet.

