INNOVATIVE SCHOOL DISTRICTS LOOK TO THE SKIES, HELPING STUDENTS CLIMB HIGHER

Avonworth, Carlynton, and Greater Latrobe

We all want our kids to take flight as they grow. At three western Pennsylvania school districts, that statement has become far more than metaphor.

In the Pittsburgh area, where flying has a rich and deep history, a small but growing number of schools have made the decision to introduce students to aerospace-related careers.

It may sound futuristic, but it's happening today: Piloting drones. Racking up hours at the controls of small aircraft. Exploring the principles of flight and understanding what makes the modern aviation industry tick. These things and more are now on the table for students at Avonworth, Carlynton, and Greater Latrobe school districts.

At Greater Latrobe, the district's philosophy is utterly exportable when it comes to aviation programs and preparing kids for possible careers: "You can't be what you can't see," according to Jessica Yetter, the district's career pathways coordinator.

"We try to give kids as many opportunities as possible," Yetter says. "You have to expose them at an early age to what the possibilities are."

HOW TO INTRODUCE STUDENTS TO SUCH AN INTRICATE FIELD?

If you haven't seen them yet, you've certainly heard about them: Drones with cameras are reshaping our view of our own landscape, flight by flight. Companies are experimenting with package deliveries via drone. The discipline is only on the ascent (forgive the pun) and educators at Carlynton School District know this well.

That's why Carlynton has begun offering courses called "Taking Flight — Theory and Design" and "Drone Flight & Navigation." Both are focused on flying and understanding drones.

Carlynton teacher Emily Lutz sees each of these as "more than a class," she says. "It's a gateway to future technologies and careers."

By equipping students with industry-relevant skills, Lutz says, "our program is helping young learners reach new heights and shaping the tech innovators of tomorrow."

Students don't just learn about drones; they fly them and are educated in FAA guidelines. In more advanced classes, they can design their own drones and see how different sectors — agriculture, environmental science, emergency services, and the media — use the devices to go where humans cannot.

A bonus: If you pass both courses and the FAA exam, you can become a licensed drone pilot and find professional work.

At Avonworth, middle-school students can learn instrument panels and even learn to fly planes from within a Red Bird "Jay Velocity" simulator.

Avonworth teachers and administrators, who already prioritize science, have been increasingly aware of an increase in open jobs in Pittsburgh-area aviation fields. They expect big growth in hiring over the next decade.

"We thought that starting in middle school would create a really strong foundation for a pathway for kids who wanted to get into it," says Avonworth aviation teacher Nicole Findon, who is a licensed drone pilot. "We would build their interest in middle school, so that once they get to high school, they have a clear understanding that they can start their aviation career by the age of 16."

While it might seem extraordinary that kids as young as middle schoolers are learning aviation, Findon sees it as natural. In fact, every middle-schooler will soon take the aviation class in a rotation with subjects like art, music, and physical education.

Meanwhile, high schoolers are seeing what their younger counterparts are doing, and they're getting interested, too. Avonworth plans to add a Drone 101 course in the high school to satisfy that craving.

"I would have never thought when I was in middle or high school that aviation would be something that I'd be interested in, but having the experience opened this up for me," Findon says. "So I want to give kids this experience."

IMMERSING STUDENTS IN THE FIELD

To see how aviation immersion can work for students, look no further than Greater Latrobe, a Westmoreland County school district that has a commercial airport in its own community. Named after Arnold Palmer, a favorite son most famous for sending golf balls airborne, the airport is the perfect place for students to discover the thrill of flight.

CONTINUED

Not only can seventh- and eighth-graders take a course on flight and space designed by the STEM learning nonprofit Project Lead the Way, but Greater Latrobe's junior high school features an enrichment period called "Wildcat Time," which includes the opportunity to get experience in the "Wildcat Drone Zone," says science teacher A.J. Haberkorn.

Aviation "is a passion of mine," Haberkorn says. "The drone instruction and opportunities have been awesome. I've enjoyed that, and just teaching flight basics and seeing the interest in students."

The district has added Aircraft Owners and Pilots Association curriculum aviation classes at the high school level, which are also used at South Allegheny and Purchase Line.

All of these districts belong to Future-Driven Schools, a regional alliance of school districts working to prepare every learner for tomorrow. Together, these districts help teachers, administrators, and board members do what they do best: innovate and collaborate in ways that benefit their students and communities.

Partnerships are key to this work. Greater Latrobe, for example, has a partnership with the Civil Air Patrol, which provides kits to educators that include drones, model rockets, and flight simulators. Add a community grant from General Dynamics that paid for a drone simulator and a large Promethean board, and you have conditions that are ideal for an all-out effort to teach students about flight.

"Don't be afraid. It's really exciting. It's a field (aviation) that has endless openings for their students. So it's certainly an investment in something that can pay heavy dividends in the future."

Those involved in the initiatives at the three districts say that it can be a challenging endeavor, but the payoffs in knowledge and career opportunities can be huge for the kids — and, not incidentally, for the teachers.

"It's a very intimidating field," says Greater Latrobe physics teacher Jamie Campbell. "So having the support of the administration and willingness to take that dive has been really important."

For districts considering aviation, Campbell shared this advice: "Don't be afraid. It's really exciting. It's a field that has endless openings for their students. So it's certainly an investment in something that can pay heavy dividends in the future."

Avonworth's Findon agrees. Having earned her own drone pilot's license, she's inspired by the many career opportunities available to people in southwestern Pennsylvania.

"As I learn about all the different things that you can do and be a part of in the field of aviation," Findon says, "I want to show the kids that, too."

These teachers have joined a long line of people who looked to the skies, saw possibilities, and wondered: Where might we boldly go if we could take flight?