

STEMPilot Launches New After-School Aviation Lab to Teach Students Principles of Flight

STEMPilot is announcing the launch of its Afterschool Aviation Lab, a program designed to get classes of 20 students excited about STEM by teaching them to fly

WATERBURY, CT, UNITED STATES,
August 28, 2025 /EINPresswire.com/ -STEMPilot is proud to announce the
launch of its new STEMPilot Afterschool
Aviation Lab, a program designed to
get classes of 20 students excited
about science, technology, engineering,
and math (STEM) by teaching them to
fly. The program uses hands-on flight
simulator training to reinforce
classroom lessons on science,
engineering, and math.

The curriculum is structured into 14 two-hour sessions, with the first hour dedicated to academic content and the second hour flying the simulators. Easy to follow lessons each begin with a video on the subject, what we call Visual Learning First Education, supported by the use of Phonics to help learning terms, No Memorizing here. Classroom handouts you print are included for each lesson.



Teachers testing out STEMPILOT's After School Aviation Lab



Student's give a thumbs up while using STEMPILOT's simulators

Students form into Flight Crews of 2 or 3 for all activities to promote collaborative learning. The program's avatar, Skyler, guides the students through the lessons.

Lesson plans cover a wide range of topics, including:

- The Four Forces of Flight: Students learn about the forces of flight—lift, thrust, gravity /weight, and drag. The program explains that lift, generated by the wings, overcomes the weight and gravity holding the plane on the ground. Thrust, created by the propeller, overcomes the resistance of air, known as drag.
- Flight Instruments: Students are introduced to the six primary flight instruments, also known as the "6 pack". These include the Air Speed Indicator, Artificial Horizon, Altimeter, Turn Coordinator, Directional Gyro, and Vertical Speed Indicator.
- Takeoffs and Landings: The curriculum provides detailed procedures for safe takeoffs and landings. Students learn to use the rudder pedals to steer the plane on the ground and achieve a rotation speed (Vr) of 60 knots for takeoff. For landing, they learn about using flaps to fly at lower speeds and the importance of monitoring air speed and glide slope with PAPI lights.
- Navigation and Flight Planning: Students learn to use instruments like the Directional Gyro and a stopwatch to follow a flight plan. They also learn how to calculate flight time, fuel consumption, and weight for each leg of a trip using classroom math.

The STEMPilot Afterschool Aviation Lab is designed for up to 20 students, working and flying together in Flight Crews, emphasizing a collaborative learning environment to help each other succeed.

Upon completion of the program, students earn a Certificate of Achievement.

For more information, please contact sales@stempilot.com or call 203-527-5747 Contact: Sales sales@stempilot.com 203-527-5747 (EST)

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