Denbigh High School Aviation Academy operates a wind tunnel to help students better understand what happens to planes in flight. The magnet program recently announced that it has secured a $58,000 grant from Alcoa Foundation to upgrade the current tunnel, which currently occupies the space of a classroom at the campus at the Newport News/Williamsburg International Airport.

The money will be used to purchase equipment that will help the more than 300 students in the academy better understand what happens to planes in flight. A helium bubble generator will show how force and pressure affect an airplane model, while cameras and computer screens will let students view what's happening inside the tunnel.

Money from the grant also will fund materials to build models, and lesson plans will be reworked to integrate the new capabilities.

"It's going to be exciting," said junior Cameron Jones. "We get to build bigger models, test higher wind speeds. It'll be fun."
Junior Jasmine Lewis agreed.

"It means we get more opportunities, and I think more jobs or colleges will like to look into us to see what we're doing and actually want to have us work with them," 17-year-old Lewis said.

The Alcoa Foundation, Alcoa Howmet's philanthropic arm, wanted to get involved with the Aviation Academy to help prepare students interested in a vocational career. With its nearby plants that manufacture parts on almost every commercial plane flying today, it was the right fit.

"The whole purpose of the program really needs to be to get kids geeked up about STEM (science, technology, engineering and mathematics) and about careers in technology, and this is exactly the thing to do that," said John Schaub, plant manager of Alcoa Howmet's structural castings center. "You could develop a dream off of this. ..."
The expansion of the school into a new Virginia Center of Aeronautics, which would include a partnership with a university, a flight school and more, was first proposed in 2014 and is estimated to cost between $20-$22 million total.

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