

# Aberdeen school showcases curriculum with STEM fair

ABERDEEN – Fourth-graders used small robots to move rovers around a replica of the surface of Mars, which they created on their classroom floor.

Annelise Lakatta and Cameron Blackburn, eighth-graders aspiring to STEM careers, discussed favorite aspects of their education.

Children of all ages engaged in activities included using spaghetti noodles and gumdrops to design models of Mars rovers; projecting constellations onto walls; and coloring paper rockets, while discussing the best ways to make them fly.

Students from PreK-4 through eighth grade at St. Joan of Arc School in Aberdeen participated Nov. 4 in the Maryland STEM Festival, an annual program held across the state over a two-week period.

At St. Joan of Arc School, classes shared projects and hands-on activities centered on the middle school edition of “The Martian,” a fictional novel about an astronaut who uses scientific principles and technologies to survive on Mars. The story gained popularity with the 2015 film starring Matt Damon.

Nearly 200 students at St. Joan of Arc School benefit from a STEM-focused learning environment. According to its website, the school “infuses Catholic identity into every aspect of a curriculum focused on science, technology, engineering, and math (STEM).”

The theme for St. Joan of Arc’s school year is “God is Creator of the Universe.” Students are applying skills such as mapping and coding in unique ways, especially by focusing on the planet Mars.

“The kids take the information and learn how to apply it,” said Virginia Bahr, principal. “STEM is very important to the future of our students.”

The Archdiocese of Baltimore named St. Joan of Arc a STEM school in 2011. In June,

the school became the first in the archdiocese to receive a STEM Endorsement from Notre Dame of Maryland University.

Smart Boards and computers in all classrooms; a LabLearner Science Lab; a mobile laptop cart; two mobile iPad carts; and school-wide Internet access points create an environment conducive to STEM learning.

"I really like how (St. Joan of Arc) is about STEM," fifth-grader Kayla Capelli said. "I wake up and enjoy coming to school here."

Preston Juarez quizzed his father on simple machines, a topic he and his fifth-grade classmates cover in their science class. This is his first year at St. Joan of Arc, and his father, Patrick, said of his attitude and achievement, "In the first month I saw an improvement."

Preston has noticed changes in himself, as well.

"Science used to be my least favorite (subject)," Preston said. "But now it's my favorite."

First-year instructor Michael Adamowski, who teaches fifth-grade science, math and religion, said that the hands-on approach to learning makes it fun for the students and provides them with the 21st-century skills sought by employers.

The school's proximity to Aberdeen Proving Grounds (APG) provides a unique opportunity for students, as APG employees engage in outreach to the school to assist in teaching certain lessons. Many students have parents in STEM fields, as 18-20 percent of St. Joan of Arc families include a parent in the military; and other parents work for government contractors.

St. Joan of Arc incorporates STEM into all subjects, including the fine and language arts. Bahr said that St. Joan of Arc is not just a STEM school, but more accurately a "STREAM" school - science, technology, religion, engineering, the arts and math.

According to Robyn Barberry, the art and sixth-grade language arts teacher, her students learn that just because you are a fan of STEM, does not mean that you cannot appreciate or enjoy art.

“We cater to the whole brain,” Barberry said. “We want our kids to be thinkers and dreamers.”

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