

STREAM-ing at St. Mary's Elementary School in Lancaster

LANCASTER — STREAM integration at St. Mary's Elementary School is in its fourth year. "Through planning, organization, and professional development for our teachers, we now fully integrate STREAM in all classes every day," said Becky Hoag, coordinator for St. Mary's Science, Technology, Religion, Engineering, Arts and Mathematics program. In the classrooms, teachers engage students in project-based learning experiences which allow for cross-curricular integration of topics and themes to be learned. Presently, sixth-graders, under the leadership of their teacher Ashley Farina, are participating in a project-based learning experience in which they are to write a creative story based on the question "What would the world be like if Adam and Eve obeyed God?" The theme incorporates learning and insights gained in religion classes, while the creative writing process is developed in English/Language Arts classes, pages and images for the final bound book are created during technology classes, a watercolor image for the book will be created in art classes, and a page of the book will be labeled with Spanish vocabulary in Spanish class.

In honor of All Saints Day, on Nov. 2, 2018, sixth- and seventh-grade students from St. Mary's, under the leadership of their religion teacher Hoag, presented a Living Wax Museum of Saints. Pairs of students conducted research on a chosen saint to prepare for the collaborative wax museum experience. One student was assigned the role of museum curator and one student was assigned to portray the saint. During the wax museum, students acted like statues until someone pressed their "button," then they became animated and spoke about the saint they portrayed. Their partner, the museum curator, shared additional information about the saint. The students enjoyed learning about the saints and learning that they, too, can experience God's love and live an extraordinary life because we are all called to holiness. This project was made possible by



the creativity, collaboration and interdisciplinary learning experiences STREAM integration offers students.

This past year, St. Mary's was awarded funds from Upon This Rock. A grant proposal which focused on art integration was written collaboratively by the art teacher, music teacher, technology teacher and STREAM coordinator. The grant award allowed for the purchase of 10 digital cameras to be used by students in art classes, in photography club, and in classrooms. A larger, more technologically advanced camera was purchased to be used by teachers and staff for video recording and still photography. Additionally, a set of ukuleles was purchased to be used in

music classes and a ukulele club was created in which students and some teachers meet weekly after school to learn how to play the instrument. The ukulele club will perform during school Masses and events. This grant award also allowed for the purchase of four 3D printers to be used in technology classes, art classes and in the classrooms to enhance creativity and learning.

In addition to engaging students in hands-on learning within classrooms, St. Mary's offers the opportunity for all students to participate in STREAM Academies during the school day on Friday afternoons.

"There are many creative opportunities for St. Mary's students to engage in that support our STREAM integration" Hoag said. STREAM Academy opportunities for students are plentiful. Some examples of STREAM Academies offered to all students in Pre-K through eighth grade are: Kitchen Chemistry, Lego U, Google CS-First Coding, Arcade Academy, Lil'

Engineers, Little Bits: Electronic Building Blocks, Science Fun with Bubbles, Science Olympiad, Robotics, Forensic Science, Game On! Video Game Creation, Fab Fashion, Mock Stock Market, Cities of the Future – Intro to Future Cities, and Physics of Toys.

Being a STREAM school provides St. Mary's students with many new opportunities for learning outside of school within the community. Students have participated in Shea's school outreach programs, trips to the Buffalo Science Museum, a monthlong Buffalo Zoo educational experience, Junior Achievement and more.

STREAM integration at St. Mary's Elementary School is a positive force of learning and creativity for both students and teachers. Students at St. Mary's continue to grow and develop the 21st-century skills of problem solving, critical thinking and collaboration through varied fun, hands-on, creative, and relevant activities and learning experiences.



COURTESY OF ST. MARY'S ELEMENTARY SCHOOL

Michael Malachowski's second-grade class performs a lab experiment in St. Mary's Elementary School's science lab.