

STREAM program gives St. Stephen platform to grow

The STREAM program at St. Stephen School on Grand Island has taken on many faces in the three-plus years that the school has been part of the diocesan initiative.

Since the program was first introduced to St. Stephen through the guidance of retired science teacher, industrial engineer and STREAM co-coordinator Carol Buchholz, it has become an integral part of the culture of the school. It has grown from afterschool STREAM Academies, offered to a limited number of students, to academies and other STREAM-related activities experienced by all students in all grades during a dedicated STREAM hour. STREAM principles and activities are gradually becoming a part of every subject as teachers become more comfortable with using STREAM as part of the way they teach every day, rather than treating STREAM as “in addition to” what they already teach.

“STREAM has allowed me to broaden the horizon for students, to show them connections between subjects and to incorporate more creativity into lessons,” said teacher Kelly Snyder. “STREAM activities engage students in learning and help them to extend their understanding and appreciation of the subjects I teach: literature and history. For example, the sixth grade created clay animals that symbolize an aspect of their own personality, just like the main character from the novel “A Single Shard” who shows determination and perseverance to become a master potter. Students were able to connect with the character and experience working with clay firsthand. These activities benefit students of all learning styles and abilities.”

STREAM can be found from pre-kindergarten through grade eight. STREAM Hour has brought much excitement each Friday to pre-K, as “the children anticipate what experiment we will be doing and look forward to watching the results. These activities prompt



other lessons such as creative thinking, beginning writing skills, illustrating stories, and predicting skills,” said Rebecca Cacciatore, pre-K teacher.

The art of collaboration is evident when working together as a team in robotics construction or arcade game design.

“I will never forget observing collaboration between two third-grade students in an Arcade Academy session,” Buchholz recalls. When the students couldn’t come up with an agreed upon game design, the classmates decided, “Well, if your idea doesn’t work, we can try mine.”

According to students like Shawn, an eighth grader, “robots and coding encourage us to be creative with our projects, while at the same time, use engineering practices that can prepare us for the future.”

Shawn was part of one of St.

Stephen School’s Robotics teams whose robot took 1st place at the diocesan X-STREAM games in 2016.

Technology teacher Taylor Koslowski readily sees the excitement and enthusiasm in her students when they participate in coding and gaming activities, as well as robotic technology.

Part of the money received through the Upon This Rock grant is being used to purchase 3D printing equipment, where students will not only be introduced to this technology, but further develop

their 21st-century skills. Students in the upper grades will learn the technical process of 3D printing and its possible uses; increasing their critical thinking and engineering abilities as well as improving their coding skills, while the lower grade students will be investigating 3D printing using 3D printing pens.

In addition to Academies, 21st-Century Math, Engineering Design Briefs, St. Stephen School has the uniqueness of having an 18-by-30-foot greenhouse on the school property. Phil Kenline, the upper grades science teacher, has taken point on this latest addition to the school, where many different STREAM activities take place from the hands-on study of plants and how they grow. One of the plans this year is to grow plants that will be used in the Life Skills cooking classes and perhaps sold at Grand Island’s farmer’s market. Part of the UTR grant money is being used to purchase hydroponics kits, so students can explore growing plants without soil.

Scott Gruenauer, St. Stephen School principal, feels STREAM has made an important impact on how learning goes on in St. Stephen School.

The children anticipate what experiment we will be doing and look forward to watching the results.

~ Rebecca Cacciatore, pre-K teacher



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Kindergarten teacher Tara May uses Dash and Dot Robotics to introduce her students to coding at St. Stephen School.