Blue Ribbon parochial school from diocese looks to STREAM ahead

By Tony De Bari

KENDALL PARK — The past school year was filled with STREAM (science, technology, religion, engineering, art, math) successes for St. Augustine of Canterbury School.

Now, as students are about to return to the Blue Ribbon school, their principal, Religious Teachers Filippini Sister Mary Louise Shulas, stated, "The administration and faculty are fully committed to challenging their students to become digital age computational thinkers and innovative designers through the integration of STREAM activities throughout the entire curriculum and school."

It was a newly formed team of sixth-, seventh- and eighth-graders who captured their school's biggest STREAM success last year. In March, the team entered the two-day Band-Aid Brand and STEM Rube Goldberg Machine Contest, sponsored by Johnson & Johnson in Columbus, Ohio.

The Rube Goldberg Machine Contest is an annual international competition that challenges teams of students from middle school to college age to compete in building the most elaborate and hilarious Rube Goldberg machine possible. A Rube Goldberg machine is an overly complex contraption, de-



signed with humor and a narrative, to accomplish a simple task. In this contest, the machine had to apply a Band-Aid to a baby.

After being named the New Jersey/New York regional winners, St. Augustine's team went on to become the first National Middle School winners in a competition in Columbus, Ohio, March 26. They also won awards for Creative Spark and the Spirit of Rube Goldberg, and in an online voting competition they were chosen as "The People's Choice."

In April, the students presented their award-winning Rube Goldberg

machine at the Johnson & Johnson headquarters in Skillman, on the company's launch day of its new Band-Aid, called Skin-Flex.

While shining in the national spotlight, St. Augustine students continued the school's tradition of performing service through technology. Utilizing its two 3D printers, members of St. A's Tech Team accepted the Prosthetic Kids Hand Challenge, which asked students to build and donate hands to children in need of prosthetics. Meeting weekly over the course of a month, the team constructed the "Raptor Reloaded" designed by e-NABLE. They made sure



Above, Religious Teachers Filippini Sister Mary Louise Shulas, principal, works with students in the Makerspace Room using "Little Bits," electronic building blocks. Left, the winning Rube Goldberg Machine constructed by students from St. Augustine of Canterbury School, Kendall Park, placed a Band-Aid on a baby doll. The students competed at a two-day contest in Columbus, Ohio, in March.

photos courtesy of St. Augustine of Canterbury School

it was finished and delivered before the close of the Year of Mercy in December 2016.

In another project, the Tech Team designed night lights, which were donated to a children's hospital to provide physical and spiritual light in what can be a dark time for any child. For their yearly tech project the team assembled and coded a fully-functional robotic arm. Continued on next page



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The students on the Knights Television Network school TV crew used blue screen technology to transport their "correspondents" to locations around the world, allowing the students and teachers to feel like they were on a different Virtual Field Trip each morning. Younger students participated in STREAM-based after-school programs facilitated by Mad Science and Bricks4Kidz.

St. Augustine School sent another state champion eighth grade Odyssey of the Mind Team to the World Finals in Michigan, and also had a team that participated in the Lego Robotics Competition.

Thanks to a successful fundraising campaign, St. Augustine School was able to create a dedicated MakerSpace in which every class from kindergarten to eighth grade had the opportunity to participate in real hands-on engineering activities using everything from pipe cleaners and construction paper to LEDs and littleBits interlocking electronic circuit components.

Throughout the school year, St. Augustine's teachers integrated handson STREAM projects into their classrooms each quarter, many of which were the result of cross-disciplinary collaboration between teachers of different subject areas. Projects such as building suspension bridges out of popsicle sticks, using a blueprint of building specifications to construct a hut that could withstand turbulent weather (simulated by a blow dryer), designing and building their own "Fidget Spinners," and designing a protective wetsuit for a playing card challenged students to apply their understanding of many different subjects to solve real-world problems.

Reflecting on the upcoming school year, Sister Mary Louise said,

"The faculty and administration of St. Augustine are again committed to not only meet the expectations of our school-wide STREAM curriculum goals, but to exceed them, and from our past success, I'm confident they will."

Tony De Bari is technology coordinator at St. Augustine of Canterbury School. Technology/computer teacher Debbie Knox contributed to this article.

At right, the winning Rube Goldberg Contest team from St. Augustine of Canterbury School accepts a check for \$1,000 from Rube Goldberg's granddaughter. Below, Ed Modzelewski, vice principal and social studies teacher, weighs a bridge made of popsicle sticks as part of a STREAM (Science, Technology, Religion, Arts, Mathematics) project.







A member of the Technology Team at St. Augustine of Canterbury School works on prosthetic hand as part of a challenge to make and donate the items to children who need them. — photos courtesy of St. Augustine of

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