S-T-R-E-A-M

St. Joseph School of All Saints Parish

FEATURE STORY

St. Joseph Alumnae Support STREAM

Alumna Nicole LaValley ('08) has Italy on her mind. Very shortly, she will be on her way to Calabria in Italy's southern region to begin the work of teaching English to African Refugees. Later in May, she will fly home to graduate from the University of Massachusetts, Amherst with a BBA in Business Management.

For most college seniors, this is a busy time. Focus is on the future and moving ahead to next steps whether it is to pursue graduate school or to enter the workforce to begin a new career.

Fortunately, for Saint Joseph's, Nicole LaValley is taking a look back. She weighs her achievements of the present and the promise of her future within the context of her past experiences as a student at St. Joseph School. She credits these experiences for her success in getting into Central Catholic High School, being accepted to a great college and her current success– arriving at the threshold of college graduation.

Despite the swirl and flurry of events in her last college semester, Nicole came by to visit during Catholic Schools Week; and, for Nicole, it was a purposeful visit. During an assembly early in the week, Ms. Lavalley presented Principal Maureen Cocchiaro with a personal donation of $ 618.00, money she earned as an intern at a local company.

When asked to say a few words, Nicole offered, "St. Joe's prepared me well to get into Central [Catholic High School]. What I learned here helped me get into college– a few colleges. I had the option to choose the one that was right for me because of the education I had at St. Joseph's. The one thing that I would like to do is to help prepare other students in the way St. Joe's prepared me."

Enter Alumna Emily Lyons ('99). Taking time away from her busy schedule as vice President of Claims at Liberty Mutual, Emily visited the school at the end of Catholic School's Week. Her purpose was to give students a concrete answer to the question, "When are we ever going to use math in our own lives?" The work teachers do preparing students for college and careers in STREAM got a shot in the arm as Emily spoke to (continued, p. 3)

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SJS Alumnae Support STREAM

Feature Story

Inside this issue:

Fifth Graders Study Stars' Electro-magnetism

Star systems and their elements – photons, dwarf stars, gamma rays, electromagnetism and their connection to planet earth were the target of Fifth graders in Science class. Through a hands-on investigation led by Mrs. Woitkowski, Special Educator, students explored electrical conductors and insulators.

In tandem experiments and the use of models, Dr. DiBenedetto guided students through exploring the behaviors and several properties of magnets. With videos and class discussions, students were able to connect what they learned to a clearer understanding of our star's own electro-magnetic field.

Capistrano Has its Swallows, and Robotics Club Has…Finches (of sorts)

Bird-Brain Technologies grant funded 15 finch robots on loan to St. Joseph School for the Spring term. IT Director, Yvonne Boyd is thrilled to receive the grant that will complement activities of the Robotics Club beginning in late February. "The Finch will capture students' imagination and curiosity as they learn computer science", said Mrs. Boyd. Along with being designed with the idea of delighting and inspiring students, the finches also provide students with a tangible and physical representation of computer codes they will be programming. These little birds will make computer science concepts more concrete to students across every grade level.

'The Finch', according to Bird-Brain Technologies, was developed to catalyze a wide range of computer science learning experiences from entry level basics of computational thinking to rich, interactive program writing. The finch robots support over a dozen programming languages, including environments appropriate for students as young as five years old.

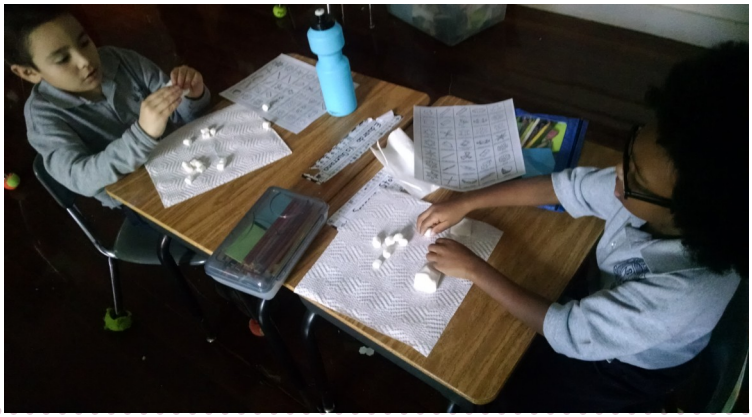
The Robotics Club begins in February and will run through April. Membership in the club is open to all students across grade levels. If you are interested in exploring the world of 'The Finch' please contact Mrs. Boyd at the school.

Nano-technology Club Makes Model of Carbon Nano-tube

Saint Joseph's Nanotechnology Club started the month off on a small scale...a very small scale. The eighteen member club began their exploration of structures that are one billionth of a meter in size by recalling what they learned about carbon atoms. As they discussed the importance of valence electrons in carbon bonding, the Seventh and Eighth graders constructed rigid models of carbon atoms. Using wooden spheres, pipe cleaners and lentil-size yarn balls, they concretely represented the atom's four valance electrons.

After viewing a video from Northeastern University's Nanotechnology Dept, students were able to make connections between what a carbon atom is and what its potential bonding patters can produce. The students then used materials from Indigo Instruments to construct a carbon nano-tube. Students were able to tactilely manipulate flexible angular bonds of the carbon atoms into the characteristic hexagonal and pentagonal structures of the nano -tube. The carbon nano-tube model is on view in the STREAM lab, and will be presented to our partnership representatives from UMASS Lowell's Nanotechnology Manufacturing Department in mid- February.

First Grade Students Learn About Snowflake Structures



Mrs. White's First Graders were busy exploring structures of their own. Their curiosity and imaginations were in full swing as they studied the characteristics of snowflakes. In class, they reviewed printed templates and talked about the snowflakes' unique shapes and designs. Then, the First graders applied what they learned, and using art supplies and marshmallows, made their own unique snowflakes!

St. Joseph Alumnae Support STREAM (Continued)

students in grades Four to Eight about the impact solid math skills had on her own life. Student Council President, Shea Robertson said her story made an impact on the students. "She was very good as she spoke to us, making it clear that what we know about math, really helps us get into good high schools and colleges. Her success in her insurance career was possible because of her hard work and what she knows about math. Emily graduated just like we will, and she told us that we too can be successful, if we develop our math and other skills taught here in school."

Coming back to St. Joe's as an Alumna and sharing her experiences made a huge impression on current students. They were intrigued with her job as a summer intern and actuary at Liberty Mutual. The students were encouraged to think about math in a new light– a priceless donation on her part. Emily's donation of her time to share her story and how she succeeded in building on the math skills they now are learning, got students thinking of their own possibilities as St. Joseph graduates.

Alumni sharing success stories powerfully enriches the education of our students.

We are grateful to both of these successful Alumnae. Their dedication and support are invaluable in encouraging current students to ground themselves in skills, especially STREAM, for seamless transition to high school, college and careers. Nicole best sums up the impact and rationale for Alumni support: "Here [at St. Joe's] is where it all starts. Preparation in math and science is important. As a graduate of St. Joseph's, I want to contribute something back, so that all students are prepared for what's next in life and have options -like I did in mine."

Kindergarteners Explore Arctic Life

The kindergarteners 'journeyed' to the Arctic Circle with Mrs. Lyons and Mrs. Finn this winter via videos and hands-on activities. Students learned about the snow, Arctic animals and igloos that are all part of the region.

During the unit, students first read a science magazine about what it takes to build an igloo. Then, they watched a video of a father and son actually built an igloo step-by-step. Taking on the challenge, the students then set out to construct their own igloos. Using what they learned from the readings, discussion and the videos, they made replicas of the igloos with marshmallows and toothpicks. A few of them were successful in making the perfect domed roof!

If you have an interest in supporting STREAM at the Kindergarten level or wish to visit during science classes, please contact Mrs. Lyons or Mrs. Finn. They would love to have their students share their work with you.

One of the domed igloos in Kindergarten

Third Graders Engineer Sled Ramps for Winter Fun

How do you design a sled ramp for maximum distance? Mrs. Fitzgerald's Third Graders took up the challenge. Students first designed ramps from card stock material. Then, experimenting with Unifix© cubes, they supported the ramps at varying heights. Using plastic bottle cap 'sleds', students tested the relationships among distance, speed and friction along an inclined plane to determine the appropriate ramp height for maximum fun!

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Mission Statement

St. Joseph School of All Saints Parish serves students from nursery through grade eight from Haverhill, Massachusetts, and surrounding areas.

We offer a challenging academic program integrated with Catholic values in a safe and welcoming environment. We strive to develop an awareness and concern for the less fortunate through the practice of the Corporal Works of Mercy.

Homing Pigeons and Study-Buddies

Mrs. White's First Grade class explored the concept of flight through a project they shared with their Eighth Grade Study-Buddies.

Students first read fictional and non-fictional stories about pigeons. They focused on a special bird– the homing pigeon. They used what they learned to construct a homing pigeon of their own.

After many modifications and test flights, they attached messages to the pigeons for their grade Eight Study-Buddies. The two classes then had fun flying the homing pigeons while testing each one to see which pigeon flew the farthest!