STEM students get animated!

Innovation is nothing new. In Mr. Bolt’s class, “How Things Work,” students began the year by looking at the Seven Wonders of the Ancient World. They explored the circumstance as well as the engineering behind the creation of ancient structures. Now students are looking at some of the modern “wonders” such as Facebook and text messaging, exploring the concepts of networking and database management behind things they use every day and may take for granted.

Currently students at STEM are having fun programming “sprites” during their unit on computer programming using Scratch programming tools. Scratch is a programming language that makes it easy to create interactive stories, animations, games, music, and art.

As young people create and share Scratch projects, they learn important mathematical and computational ideas, while also learning to think creatively, reason systematically, and work collaboratively. One assignment is building a calculator. Another is figuring out how to write a program that can calculate and draw triangles using Pythagoras’ Theorem.

Students were given an assignment to create a “sprite” which is a character. Some drew stick figures while others created cartoon style art or attempted self-portraits. Students then had to design a moving object. Most students designed some sort of ball. A random encounter with their original sprite generated basic interactive animation. Students built comment bubbles. “Ouch, that hurt,” displayed on one student’s screen every time the ball hit the character. Counters were built to keep track of how many times the ball hit their sprite. One student explained, “We made our own sprite and then animated it. Mine changed into different costumes and smiled and it tells what mood it’s in.” Students got very creative on this assignment producing multiple sprite characters.

As students progressed, very innovative projects emerged. One pair created an extended dance-competition cartoon segment, complete with a

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Wednesday morning was a flourish of activity as student representatives from every grade rushed to collect and count the overflow of canned foods that had arrived at Bayside that morning. The abundance of tuna, beans, and peaches were divided into different piles according to grade level as they were counted and recorded on the oversize thermometers that were tracking the progress of each grade.

Ever since the official announcement on the Monday prior, S.T.E.M. had been abuzz with excitement for the competition revolving around the donation. Food was to be collected in a specific classroom for each grade level. Even the teachers couldn’t help

Bayside STEM students show they “CAN” help!!  

by STEM student, Alara Slonaker

Have YOU heard the news!  

by STEM parent, Lee Strieb

With so much great activity going on at Bayside STEM – inside and outside the classroom – it is important that we communicate effectively with one other -- and with the “outside world.” This fall an ad-hoc “communications committee” comprised of Bayside STEM parents and staff has been working hard to improve both the content and the format of communications at the school.

Committee members first met to identify key audiences for various news (e.g. teachers, students, current and future parents), and the most important information to share and ways of sharing it with each group. They evaluated existing communications at the school, and developed plans improvement changes.

Since those initial discussions, committee members, working closely with various staff, have helped move several projects including: starting a weekly e-newsletter, improving the appearance and design of the Bayside-STEM.com website, creating the Eagles Nest, the area behind the school office, where parents can gather and talk.

Those changes are a great start. But there’s more to come in 2011. Upcoming plans include: continual improvement of the school website including adding more “bells and whistles” to the school website including video testimonials by teachers, students, and parents about what makes Bayside STEM special, improving the look and feel of the weekly E-bulletin, and a regular information bulletin board near the office for students and parents.

The above lists are just a small part of what’s going on – and we can use your help! If you are interested in helping out on one of these projects, or in volunteering for other projects such as clubs or fundraising at Bayside STEM, contact Lee Strieb at lstrieb@sbcglobal.net, or 650-345-8050.

Weekly E-Blast Bulletin

Are YOU getting the weekly E-Blast bulletin over the weekend? If not, perhaps we do not have your email! Also check your spam filter. You need to allow: noreply@securemail.schoolloop.com
Bayside STEM teachers are all so amazing that we thought you might like to learn a little be more about them! Each issue we will have a “Teacher Feature.”

This quarterly we feature Mr. Paul Luperini our STEM Foundations sixth grade teacher. Mr. Luperini teaches because teaching is the love of his life. His pedagogical passion stems from the hope of helping students become independent thinkers, problems solvers, and organized in their daily affairs. No wonder he is such a perfect fit for sixth grade introduction to design thinking and STEM topics.

Mr. Luperini is a one of a kind. He holds more credentials than fingers on one hand. He has a credential in PE, Earth Science, Biological Sciences, English Language Arts, and Social Studies. His most recent credential is in Design and Production, which he worked on over the fall intersession. This credential signals expertise in graphics design, basic computer language, Internet, industrial metallurgy and electricity, and safe workspaces and issues of ergonomics.

Mr. Luperini has unique gifts that serve STEM students as they learn design thinking in STEM topics. The students have already developed prototype robots to solve the issues of overly heavy backpacks and bullying. They also work on units in design, engineering, and other sciences.

When asking Mr. Luperini what his hobbies are his list was like his list of credentials: travel, cycling, bicycling, reading. And, by the way, his favorite book as a kid was Johnathan Livingston Seagull.

We are so lucky to have Mr. Luperini at STEM because he could have done many things including be a professor of Medieval history, a naturalist, or a museum curator. Instead, Mr. Luperini is our STEM foundations teacher and what better match to design thinking is there than from a man who loves to teach so many subjects, but most of all, to teach students to think!!

Has your child signed up for Science Fair?

Though time is running very short, there still is room for more Science Fair projects! Mr. Paul Luperini is coordinating for our school. Information and guidelines can be found online at the County Office of Education website. Go to www.smcoe.k12.ca.us then search for “science fair.”

Mr. Luperinni has already hosted several lunchtime sessions for students to plan and work on science projects. Most students will be doing their actual investigative project over the Winter Break. Students can choose a focus of study from a wide variety of topics including Biology, Earth Science, Technology and many, many more including Mathematics!

After looking online, if you need more information, contact Mr. Luperini through SchoolLoop or at: pluperini@smfc.k12.ca.us.

Science Fair
Jan. 31 – Feb. 4
Hiller Aviation Museum
perform a pre-programmed dance while music that played in the background. Students begin to learn the basics of structured programming and looping sequences. When something doesn’t quite work they way expected, students have to go back and troubleshoot their programming. As they present their projects to the other students, their classmates discover additional creative elements to include in their own projects.

The “How Things Work” class was created and is taught by Mr. Rob Bolt. Before becoming a teacher, Mr. Bolt had been a programmer at Intel and Oracle. The class continues to grow in student interest. Mr. Bolt began this class last year involving students with technology in society through history as well as literature. In addition to programming, students have units on creating and programming robots to accomplish certain assigned tasks.

Bayside students at work using Scratch

The seventh grade erupted in a chorus of cheers. The rest of the day the seventh graders walked around campus with their heads held high, proud to be the outstanding champions of the competition. It was the same feeling of pride that filled every student as they recalled the people they had helped in their mad dash to win. How good it felt to be giving. As we head into the holidays, who can imagine what a school with this much heart will collect for the annual holiday toy drive?