Gateway showcases emphasis in hands-on learning

Huntington – A number of activities were held in the waning days of the school year to showcase the emphasis on hands-on learning across Gateway schools this year.

Fifth graders at Littleville Elementary School held a STEM (Science/Technology/Engineering/Mathematics) Fair to showcase their knowledge of the scientific method and results of scientific research they conducted in small groups. The fair was held during the second half of school on Wednesday, May 7 and was extended afterschool to 5 p.m. for parents to view.

The projects were varied and engaging; all included presentation boards that outlined their scientific steps: ask, imagine, materials, plan, create, test, improve, testing improve, thought and sometimes even a final test.

Students made their own lip balm, created a pendulum painting machine and golf ball catapult, designed an EDP solar car, and figured out how to make an egg bounce (but stay intact). Students also came up with helpful solutions to pesky household tasks, such as peeling potatoes and removing stains. They studied the effects of soda on teeth (“It’s not just the sugar that’s bad, it’s also the acid,” concluded Nariyah Renaud. “If you have to drink soda, there are low acid sodas available.”)

Joey Pisani and Maia Kibbe grew crystals using different ingredients to see how fast they grew and which had the best outcome. They pointed to their graphed trial data and their final crystals, showing that salt and borax worked better than baking soda, salt/vinegar, epsom salts or sugar did. “Salt took a little longer to grow, but had the best outcome,” Pisani said.

Meghan Gilman studied how fast water travels in various plants. Using food coloring in the water, she measured changes and degrees of plant color changes, finding that the colored water moved the fastest through tomato seedlings, while only the tips of the leaves of an ivy plant had changed color.

Also related to plants, two students decided to see if plants grew differently if they were watered with “dog drooly water” (direct from the dog dish) or regular tap water. They found that the dog drooly plants grew fastest initially, but that things evened out over time.

Reeghan Morawiec and Reese Pritchard soaked small, white tee shirts in coffee (Reeghan’s mom works at Starbucks) to determine which ingredients were best as stain removers. They used bleach in their control group (which of course worked well), but tested it against salt, lemon juice, vinegar, seltzer and baking soda. Salt and seltzer outpaced the rest of the substances in effectiveness, although neither was quite as good as bleach.
This showcase concluded the end of a year that changed veteran teacher Ginny Lee from a classroom teacher to one who provided STEM classes to each grade at Littleville and Chester elementary schools.

Students at Gateway Regional Middle had their own hands-on learning opportunities this year through a new Project-Based Learning (PBL) block. Principal Jason Finnie spoke about the grade-level projects that had taken place throughout the year, as students and teachers worked together during the last block of each school day. In a presentation shared with the Gateway Regional School Committee at their June 7 meeting, staff wrote, “The PBL period was introduced this school year as a chance for our Middle School teachers to explore, on a deeper level, material introduced to their students through their classroom curriculum. Teachers were creative in their approach this period, using this time to: reinforce key concepts from both core and specials classes; link those concepts across curriculum and grade levels; and develop a greater focus on educating the “whole child”, and developing collaboration and other social-emotional skills.”

Eighth grade PBL studies included a mock election, discovering the true meaning of Memorial Day, exploring outer space, and preparation for “real life” by studying personal Financial Literacy. They also built towers and shared their cultural heritage and Thanksgiving traditions.

Seventh graders worked on projects that emphasized communication, collaboration and problem-solving in varied situations, such as: constructing towers made of only spaghetti strands and marshmallows, designing and creating prototypes for devices/items that might facilitate the transition from sixth to seventh grade, and orchestrating research-based interactive based on their own questions about themselves and the world.

Sixth grade staff encouraged students to work on projects that used practical problem-solving skills, collaboration among peers, creative thinking, plan development and project management. To that end, students simulated construction of the Egyptian pyramids; read and presented on a Newbury Award winning book and took part in a school-wide mock election.

Together, students across all grades took part—through set design, prop building, acting, program design, and numerous other tasks—in this year’s Middle School Play, “Peter Pan and Wendy.”

The final days of school provided opportunities for high school classrooms and clubs to complete field trips and special projects. On Thursday, June 8 the Best Buddies club took an all-day field trip to celebrate the year’s accomplishments. Also that day, chemistry Teacher Jason Griffin had his students mix the materials to launch a rocket, as just one example of applying knowledge and skills from the class. In addition, special visits were underway during the last week at Gateway, including a follow-up interview with Holocaust survivor Stephen Berger—using the wonders of distance learning technology—and a personal visit from Author Lisa Papademetrious for Middle School students, who had read her book, “A Tale of Highly Unusual Magic” along with the “Middle School” series of books co-authored with James Patterson (“My Brother is a Big Fat Liar” and others).

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Photo (left to right): Littleville fifth graders Reeghan Morawiec and Reese Pritchard staff their presentation on using household items to remove stains, as part of the STEM Fair at Littleville Elementary School. (Below) HS Chemistry student Rebecca Lebert prepares to catch one of the rockets launched by classmate Brandon Daniels during one of the final classes of the year.