Progressing with Technology: Enhance, Explore, Educate

Through the collaborative efforts of the Board of Education and administration, as well as the support of the community, the Copiague Public School District continues to provide its students with a comprehensive learning experience that strives to meet the rigorous educational standards of the 21st century. As a means of enhancing opportunities for students throughout the district, a number of new technology initiatives have been implemented at all levels of learning. With technology being integrated more than ever into classroom instruction, the district provides technology-based courses and programs that allow students to explore their interests and expand their horizons.

Some of the most valuable courses offered at the high school level give students a hands-on experience with technology. As 21st-century technology rapidly grows, it is important to expose students to the fundamentals of science, technology, engineering and math, along with real-world, problem-based learning. At Walter G. O'Connell Copiague High School, students are given the opportunity to explore STEM concepts and robotics through half-credit electives.

Additionally, students enrolled in physics courses are learning through the pedagogical model of a flipped classroom. A flipped classroom functions as the reverse of a traditional classroom, requiring students

to watch lectures or videos at home and dedicating class time to student-centered learning activities. For this type of course, students are provided with a one-to-one laptop, which facilitates the school-to-home connection. The hands-on nature of the flipped classroom model allows students to acquire and refine analytical and problemsolving skills as they work individually and

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Superintendent of Schools Dr. Kathleen Bannon

in teams to gather, process and synthesize information.

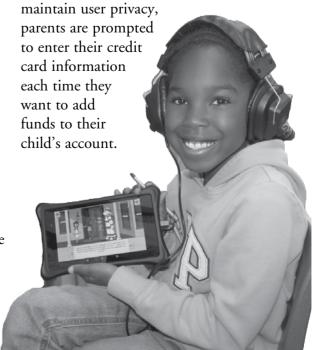
As part of the new technology initiative at the middle school, students have begun to work with ThinkPad Chromebooks, as well as various Google platforms. With the

school year well underway, history teacher Stephen Cooney and special education teacher Brian Washington have adapted their curricula to utilize the ThinkPad for classroom instruction. The use of Chromebooks facilitates differentiated instruction and collaborative work,

allowing students to learn at their own pace and gain a better understanding of important concepts. Additionally, middle school students are working with new technology tools such as the 3-D printer for visualizing and modeling. The use of this type of modern technology offers students avenues to experiment and observe results in ways that aid in comprehension.

Similarly, at the elementary level, third-grade students are exploring the use of one-to-one devices. Each student is issued a Nexus 7 tablet for in-class instruction. Students download educational apps that align with Common Core reading, math, science and more. Not only are teachers able to assess their students' progress through these apps, but the programs also allow the students to assess themselves.

In addition to these technology initiatives, the District recently launched the EZpay portal, a pre-pay automated account. EZpay allows parents to easily deposit money into their child's food service account, as well as allows high school students the opportunity to pay for their Advanced Placement exams. To



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With access to one-to-one Chromebook technology, history teacher Stephen Cooney and special education teacher Brian Washington have incorporated multiple resources and media outlets into their daily instruction. Among their collection of digital tools is Google Classroom, which they use to create and organize assignments quickly, provide feedback efficiently, assess student work and communicate with their class. Students use Google Classroom to organize their work, turn in assignments, work collaboratively on group projects, and communicate directly with their teachers and peers.

In addition to homework and class assignments, Mr. Cooney and Mr. Washington customize and distribute online tests, which allows them to provide instant feedback to their students. Both teachers collect test result data and can easily assess student progress and understanding of the content covered in class. As a special education teacher, Mr. Washington provides modified tests and assignments to students for differentiated instruction. Students benefit from this type of individualized attention, enabling them to work at the level that best challenges their abilities.



Flipped Class

Students enrolled in John Young's physics classes at Walter G. O'Connell Copiague High School are learning through the nontraditional structure of a flipped classroom. Prior to class, students are instructed to view an informative video or lecture for homework, which allows them to learn at their own pace and rewind the lecture to ensure they understand the concept.

In class, students work in groups or individually on assignments that correspond to the homework video. Labs and demos are based on deepening students' understanding of course concepts and are completed in class

before, during or after the students have seen the video. This instructional approach is based on provoking the students' curiosity, providing a concrete example or enriching their understanding when the lab or demo is performed during class.

For the purpose of these classes, each student was issued a new Acer laptop. Used in conjunction with the laptops, Vernier computer probes were purchased to gather results during experiments. Additionally, students use Google Classroom to work collaboratively with peers and to receive and submit assignments.

"The main value of flipping the class is that students can work at their own pace," said Mr. Young. "They can engage with the teacher in a more productive manner and use their creativity in engineering labs that meet their particular needs. This deepens their understanding while helping them to retain this new knowledge for a lifetime."



Elementary Tablets



Students in Jeanie Mullins' thirdgrade class at Great Neck Road Elementary School are getting handson with Nexus 7 tablets throughout the course of the school day. During the day, students use educational apps such as iTooch Math, iTooch Language and Brainpop Jr., which serve as visual and interactive supplements to curriculum-based concepts. Students also use Google Earth to take virtual field trips to landmarks and destinations discussed in class, Google Drive to save work and share it with their teacher and peers, Google Docs to experiment with different fonts, write and complete assignments, and Google Chrome to research information.

While Mrs. Mullins benchmarks the students at their reading level, she uses the tablet's camera feature to record the student as he or she is reading. By doing this, students can track the progress of their reading skills from the beginning to the end of the school year. Another application installed on the students' tablets is a QR code reader. In conjunction with their National Geographic magazines, students use the QR reader app to read the QR code on the magazine, which gives them access to videos and games related to the topics featured in the magazine. Throughout the school year, Mrs. Mullins is able to alter the apps the students use to ensure they are working on assignments that meet their instructional level and align with the curriculum.

"Individualizing instruction is a key element," said Mrs. Mullins. "Plus, these kids are becoming so techsavvy that they know how to navigate through the device."

STE//\ Explorations

For the first time, students at Walter G. O'Connell Copiague High School were given the opportunity to enroll in a science elective where they explore STEM concepts through handson, project-based assignments. The objective of the class, which is led by teacher Jules Goeke, is to make connections to real-world career opportunities in the fields of science, technology, engineering and math. During the course of the year, students will complete approximately

six projects, most of which involve design, construction and testing of an apparatus or machine. Some projects also require an ample amount of research to complete them.

Each unit of study gives students the opportunity to work with various materials and equipment. As part of a recent unit, students have been working in pairs to design, construct and test a bridge made of balsa wood. The bridge must span a specified distance and will be scored based

on its strength-to-mass ratio. Through this method of assessment, less massive (lighter) bridges will score more highly than more massive (heavier) bridges, so students must focus more on the design of the bridge rather than the amount of wood used in its construction to maximize strength.

Inspired by the high school Science Olympiad Club, this course offers students applicable experience and fosters an interest in STEM education.

Eagle Pride Soars
AT HOMECOMING

Eagle pride soared this year as community members, students, faculty and administrators in the Copiague School District united for the district's homecoming festivities on Oct. 17. Students and staff at Walter G. O'Connell Copiague High School kicked off the celebration earlier in the week by participating in Spirit Week, which led up to Friday afternoon's pep rally.

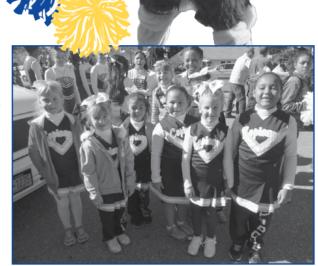
Spirits remained high the following day as the homecoming parade, beaming blue and white, made its way down Great Neck Road and Dixon Avenue. The parade, led by members of the Board of Education and Superintendent of Schools Dr. Kathleen Bannon, featured the high school marching band, cheerleaders, Lady Steppers, homecoming court, class floats, various school clubs and, for the first time, students and administrators from each of the District's four elementary schools, making it a true districtwide celebration.

Designed around the theme of "Once Upon a Time: An Eagle's Story," the seniors' float represented Dr. Seuss's "Oh, the Places You'll Go," the juniors depicted Disney World, the sophomores' float displayed "Little Red Riding Hood" and the freshmen, "Scooby-Doo." Following the parade, High School Principal Joseph Agosta and Dr. Bannon offered words of welcome and introduced members of the Board of Education, District administrators and special guests, including Councilwoman Jacqueline A. Gordon and Suffolk County Legislator DuWayne Gregory.

"Today's homecoming celebration unites the past and present, bringing together each of the unique communities and organizations that contribute to the identity of our district," said Mr. Agosta. "We join together to celebrate our students and the sense of pride for what they do to make Copiague such a great place to live, learn and work."

Prior to the homecoming football game, attendees enjoyed the Booster Clubsponsored fair, which included student- and PTA-run booths, music for dancing, games and food. At 2 p.m., Copiague's varsity football team took on North Babylon.

Despite their best efforts, the Copiague Eagles fell short of a homecoming victory. During halftime, members of the homecoming court were announced and the crowd enjoyed performances by the marching band, cheerleaders and Lady Steppers.





Honoring Alumni Achievement

Each year, to conclude the homecoming festivities, the District honors its past graduates who have succeeded in their careers and lives or have distinguished themselves by virtue of their contributions to community and society. This year's inductees to the Hall of Achievement, who joined the 86 past honorees, were Ryan J.W. Kuhn, Class of 2003; Ofrona A. Reid Jr., M.D., Class of 1989; and Scott C. Sattler, Class of 1983.

Following the excitement of the homecoming parade and football game, the celebrating continued as the honored guests and their families and friends gathered at Walter G. O'Connell Copiague High School for the annual Hall of Achievement induction ceremony.

"This year's inductees, like those before them, are outstanding individuals," said Board President Brian J. Sales. Superintendent of Schools Dr. Kathleen Bannon supplemented Mr. Sales' remarks by sharing a brief history of the Hall of Achievement and explaining its purpose.

"In honoring successful past graduates of Copiague High School, the Hall of Achievement's primary purpose is to introduce these alumni as positive and motivating role models to our entire school community, and then keep those role models connected in a variety of ways to our schools and our students," she said. "By the nature of their accomplishments and service, inductees to the Hall of Achievement inspire our students to reach high goals."

The evening concluded with the unveiling of the wall that holds the Hall of Achievement plaques, which are prominently displayed in the main hallway of Walter G. O'Connell Copiague High School.



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