

Commack High School ~ Highlighting Success

May 2023

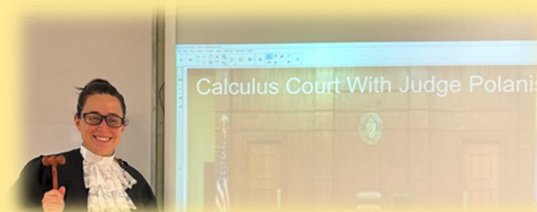


At Commack High School, we are proud of the many ways that our teachers and staff provide the foundations of success for our students every day! Each month we will highlight a few areas of success that our students experience throughout the school year and share them with our families. We hope you enjoy this monthly peek inside the halls of Commack High School!

MATH & COMPUTER SCIENCE

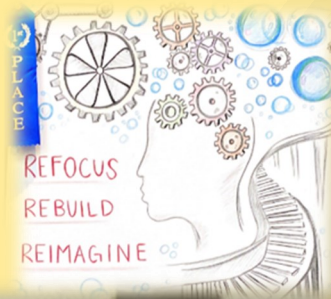
Even though $1 + 1$ still equals 2, New York State is implementing new mathematics standards known as the Next Generation Mathematics Learning Standards, and Computer Science has newly developed standards. These changes, in conjunction with the District's goal of preparing students to make the best decision for College and/or Career, make it appropriate for us to highlight the authentic project-based learning opportunities we provide our students.

- **Algebra 1** students use technology to develop an understanding of how transformations affect the equations of functions.
- **Geometry** students become architects by creating an amusement park using technology and geometric concepts such as distance and midpoint.
- **Algebra 2** students create authentic data to develop quadratic functions by bouncing a ball and recording its heights from start to finish.
- **Statistics** students research aspects that have changed since they were freshmen in high school (i.e. gas prices, incomes, attendance at stadiums, etc.). Students then use statistical measures to compare the information and decide if it could be extrapolated to predict future values.
- **Calculus** students choose a product packaged in a rectangular prism and cylinder. By measuring the dimensions and developing functions for the products, they are able to optimize the volume function to see if the dimensions used were optimal for product packaging. Students then write to the companies to discuss their findings.
- **IB Math Analysis** students become lawyers to argue whether a speeding ticket was appropriate using the mean value theorem.
- **AP Computer Science** students write a Minesweeper game.
- **IB Computer Science** students write programs that assist business, including clubs at CHS.
- **Python** students use programming language to make robots make decisions about how to move, detect and avoid obstacles, among other commands.



We are happy to highlight the success of our students and teachers. We are proud to have had 76 students participate in the American Mathematics Competition in November, which had students create posters based upon the theme "Refocus, Rebuild, Reimagine: Mathematics for the Next Generation"

Commack High School had 16 students who competed in the Al Kalfus Long Island Math Fair. We are proud of the efforts of all, which included 5 Gold medals, 1 Silver medal, and 8 Bronze medals.



Computer Science would like to acknowledge two students who won the regional National Center for Women in Technology (NCWIT) Affiliate award. Computer Science teacher, Ms. Kristin Holmes, won the NCWIT Affiliate Educator Honorable Mention award. In addition, three teams are going to the Greater NY Regional High School Programming Competition on May 17th.



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SCIENCE

Garden Club and Greenhouse

The Courtyard and Greenhouse have undergone renovations this year, with new pathways and raised beds being installed. The new beds will be used to grow vegetables and maintained by the Garden Club and the 8:1:2 class, with the harvests going to local food pantries. The next step in our renovation is a new sprinkler system, seating, and outdoor classroom space. Another new addition to our courtyard is a rain garden with rain barrels, which was made possible by a grant our students received when they won the Long Island Water Quality Challenge. The garden should be in bloom when Wood Park students come to visit our courtyard this spring.

College Marine Biology

On Thursday, April 20th, the College Marine Biology classes visited the Long Island Aquarium. It was a great day where the students were able to view a variety of the organisms they have studied all year in class. The behind-the-scenes tour our students took provided the opportunity to learn how the facility is maintained as well as introducing them to the Aquarium's conservation and breeding programs. The Aquarium, along with the Riverhead Foundation, work extensively to promote awareness of Long Island ecology and conservationism. Our classes left with a new appreciation of the unique ecosystems of our area and an enhanced understanding of classroom concepts.



IB Biology Sidewalk Art Project

Our IB Biology classes are about to embark on what is becoming a much anticipated spring tradition - The Sidewalk of Species. They will be participating in an in-school field trip where students will spend time outside, decorating our sidewalks with chalk images of endangered species, climate issues, and other current topics in science. This project will be happening on May 19th, to coincide with the observation of National Endangered Species Day and International Biodiversity Day.



Science Research

2023 marked a return to science competitions taking place in person for the first time since 2019. Commack students participated in many different science fairs, including the New York Science State and Engineering Fair, Long Island Science and Engineering Fair, multiple divisions of Long Island Science Congress, and fairs sponsored by Molloy College, SAAWA, and WAC Lighting. The WAC Lighting Invitational was held at Commack this year, where we hosted hundreds of students from across the island at our school. As always, our students distinguished themselves through their projects and how well they represented Commack at these competitions.

