

The Highland Avenue Newsletter

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In the Newsletter
(courtesy of Ms. Tamburri):

- New Exploratories
- Pi Day Celebration
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The Four C's of 21st Century Skills

1. Critical Thinking
*Finding solutions to
problems*



2. Creativity
*Thinking outside the
box*



3. Collaboration
Working with others



4. Communication
Conveying ideas



A New Wave of Exploratories Hits Highland Bringing 21st Century Skills to Light

Article by Ms. Tamburri

In today's global society, students need to be lifelong learners who have the knowledge and skills to adapt to an evolving workplace and world. To address these demands, Highland Elementary School adopted elementary exploratories for sixth grade students four years ago. These exploratories included Creative Math, Problem Based Learning, Robotics, STEAM, and Writer's Workshop.

The 2018-2019 school year brought Highland three brand new exploratories; Simple Finance, Simple Woodworking, and Video Editing and Presentation. Sixth-grade students now have the autonomy to choose among the eight exploratories, which are now more like student electives.

These electives enable students to make informed decisions that prepare them to engage as active citizens in a dynamic global society and help them successfully meet the challenges and opportunities of the 21st century workplace. And they are fun.

Simple Finance

This elective is a course designed to teach students the basics of finance including real world topics such as savings and checking accounts, the stock market, income, money management, credit, and small business management. Students in the Simple Finance class operate the "School Store" during lunch periods which includes ordering and pricing items, keeping inventory, and working as employees. The students truly demonstrate a knowledge of finance, debt, and credit management.



Working at the School Store. Pictured from left to right: Connor Detrick, Kelly Hagen, & Lillian DeBoer

Simple Woodworking

Simple Woodworking was designed as a basic introduction to woodworking which takes place in Highland's brand new Makerspace Lab. During this elective, students learn about shop safety, project design, proper hand and power tool use, and fasteners and finishing. Students will create projects such as clocks and gumball machines through a design and production process.



Simple Woodworking. Pictured from left to right: Carl Meyer, Ralph Warner, Jake Douma, Caleb Hosier, Kelsey Peterson, Alexa Hermanns, Julius Catuogno, Teya Rosso, & Shawn Boland
Photo by Mr. Ferro

Video Editing and Presentation

This course is designed to teach students about basic video editing and presentation skills using WeVideo. Students create video products focusing on adding transitions, graphics, and music to enhance presentations. Students develop skills in planning, organization, script writing, interpersonal communication, team building, and media literacy, while participating in the creation of the "Highland Morning Show"; a school-wide broadcasted morning show.



The First Highland Morning Show Crew. Pictured from left to right: Claire Palladino, Jake Douma, Juan Cuervo, Michael Zamora, Teya Rosso, Mila Barbagiannis, Lillian DeBoer, Ralph Warner, Andrea Cruz, Josephine Marrone, & Julia Henderson
Photo by Ms. Marino

THE HIGHLAND SCHOOL

Highland School Main Office
201-445-3880

Quick Contacts:

Mr. Galasso, Principal
pgalasso@mpsny.org

Ms. Callesano, Secretary
mcallesano@mpsny.org

Mrs. Scala, Guidance
kscala@mpsny.org

Mrs. Kessler, Nurse
rkessler@mpsny.org

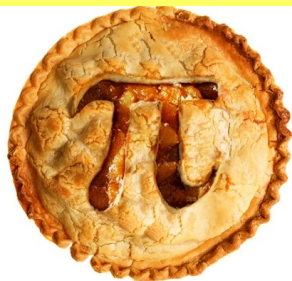
Past Pi Day Champs

Aidan Parkhurst
2015
254 digits of π

Jessica Balala
2016
254 digits of π

Bella Acensio
2017
504 digits of π

Brian Tartleton
2018
320 digits of π



Highland Can't Get Enough π

Each year, mathematicians everywhere recognize March 14th as a special holiday—Pi Day. On March 14th (3.14), those who love Math and Pi (π), come together to discuss the beauty of the endless number. Pi (π) is the ratio of a circle's circumference to its diameter. The boggling fact about Pi is that the decimal is endless. Pi has been calculated to over *one trillion* digits past its decimal. More so, the numbers that make up Pi have no pattern.

There are many ways to celebrate Pi Day, including consuming large amounts of delicious pie. A handful of people take their admiration even further by reciting tens of thousands of digits of Pi from memory. The record for reciting the most number of decimal places of Pi was achieved by Suresh Kumar Sharma of India who recited 70,030 digits in 2015, which took him an astonishing 17 hours!

Highland never misses out on the Pi day celebration excitement. Every year Mr. Shawn Savage, sixth-grade math teacher, holds a competition to see which sixth-

grade student can memorize the most digits of Pi. Throughout the month of February, students buckle down to memorize, repeat, and memorize again. Then, on March 14th, the top three competitors from each sixth grade homeroom compete for the title, in the gymnasium.

This year's 2019 winner of Pi day was Max Hagan. Max was able to recite an incredible 426 digits of Pi. Congratulations Max! After the competition is complete, the sixth-grade students finish the Pi day celebration in the most respectable way possible...eating pie!



The Top Three Pi Day Champions. Pictured from left to right: Maxwell Hagan, Ethan Alvarez, Madeleine Pagano
Photo by Ms. Marino

From Seeds to Salads

Growing Plants and Minds with a School Tower Garden

When you walk down the main hall of Highland School, your attention might be drawn to a 62 inch tower filled with beautiful fruits and vegetables. What is this tower, you may ask? It is Highland School's new Tower Garden; an aeroponic growing system. Aeroponics is the process of growing plants without soil, using only water and nutrients. This Tower Garden was generously given by the MPPEF through a grant written by Mrs. Carol Steele.

How does it work?

The Tower Garden is an evolution of existing hydroponic systems that showers exposed roots, providing fresh oxygen, water, and nutrients every two hours for 15 minutes. The grow lights are scheduled to be on for 16 hours and then off for 8 hours to allow the plants maximum light exposure with a dedicated "rest" period. This futuristic method of growing food uses 2% of the water and 10% of the space required for traditional growing. This optimum light and nutrient combination helps plants grow almost 3 times faster than conventional gardening!

Highland's New Tower Garden. Pictured from left to right: Ryan Natoli, Ellissa Adamo, & Olivia Scgaefer
Photos by Mrs. Steele

As part of the 6th grade enrichment curriculum, students researched plants and their requirements, assembled the tower, planted the seeds in the rock wool, transplanted them into the tower when the seedlings were about three inches tall, and monitored the water, nutrients, and pH levels. Mrs. Steele and her 6th grade students planted their first seeds on January 7th, and seven weeks later, they had their first salad party!

Mrs. Steele stated, "The decision to put the tower in the main hallway was to spark curiosity with a sampling from the tower. As it keeps growing I hope to share it with many classes. My goal is to shine a light on gardening, show students how plants grow, and encourage healthy eating."



How many digits of π do you know? 3.1415926535897932384626433832795028841971693993751058209749445923078164062862089986280348253421170679821480865132823066470938446095505822317253594081284811174502841027019385...