

# *Scholars Academy Gifted/Talented Program*

Orange, NJ  
Superintendent Dr. Gerald Fitzhugh, II

## *Message from Principal Machuca*

The month of March is recognized in New Jersey as Gifted Education Month and the Orange School District is certainly being recognized for their dedication and support to Gifted Education! Within these pages of our Winter newsletter, we celebrate the great work that students in the gifted education program are dedicated to within our virtual classroom space.

To start off, I am extremely proud to share two awards that have been given to individuals within our district! The New Jersey Association for Gifted Children (NJAGC) has awarded **Kate Dormann** as **NJAGC Teacher of the Year 2020-2021**. This honor is awarded to a teacher who has made outstanding contributions in the field of gifted education.



In addition, the New Jersey Association for Gifted Children (NJAGC) awards 4 categories of Distinguished Student of the Year for grades K-2, 3-5, 6-8 and 9-12. Congratulations to **Avien Abney** for being awarded Distinguished **Student of the Year for grades 3-5!** He attends the Scholars Academy Gifted/Talented program and Heywood Avenue School.



**Fun Fact!** The Orange School District Gifted and Talented staff and administration have been recognized by NJAGC with these distinguished awards for the past 3 years in a row!

2018-2019 NJAGC Teacher of the Year-Regina Nadbielny, GT STEM Teacher

2019-2020 NJAGC Administrator of the Year-Karen Machuca, Principal

2020-2021 NJAGC Teacher of the Year-Kate Dormann, GT Science Teacher

2020-2021 NJAGC Distinguished Student of the Year-Avien Abney, 5th Grade

**Orange School District is truly moving from #goodtogreat!**

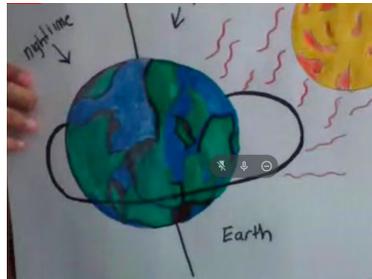
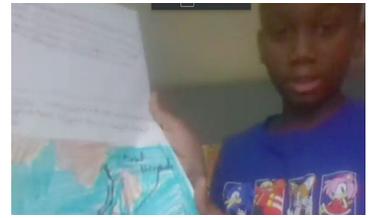
**A reminder that we will continue to remain virtual with the gifted and talented program for the remainder of the year.**

Day of the Week	Grades	Time for Synchronous Instruction via Google Classroom or Google Meet	Asynchronous Instruction (Working Independently) will occur on the other days of the week. This will provide the adequate time for students to get their GT projects and assignments completed over a week's span similar to the previous routine.
Monday	1st	1:15-2:15 pm	
Tuesday	2nd	1:15-2:15 pm	
Wednesday	3rd	1:15-2:15 pm	
Thursday	4th	1:15-2:15 pm	
Friday	5th	1:15-2:15 pm* *Changes April 23rd to 9:00 a.m.-10:00 a.m.	

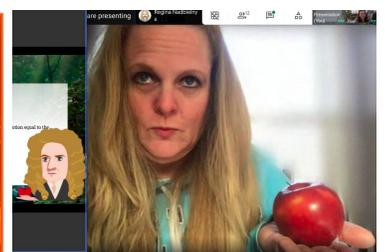
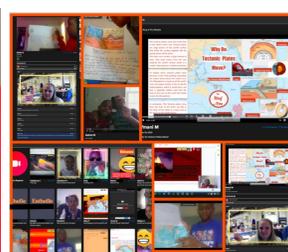
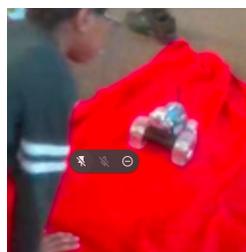
**Follow us on Twitter: [@SAcademy268](#) #GoScholarsNJ [@Principal\\_KM](#)**

## Science Class with Mrs Dormann

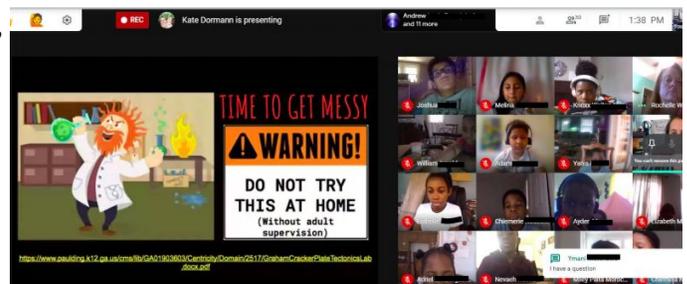
This school year has been challenging, but if there is one thing we know about Scholars: they rise. These scientists have been conducting hands-on investigations at home to discover the science behind phenomena we see in our everyday lives.



This includes studies into the Earth's Rotations (1st Grade) and Revolutions (3rd Grade), Erosion (2nd Grade), the Ring of Fire (4th Grade), and the Human Impact on Mass Extinction Events (5th Grade). We recently began our physical science investigations to test our theories about friction, sound waves, and the properties of matter.



During these investigations students asked questions, planned and carried out investigations, collected and analyzed data to find patterns, constructed models, and presented their findings to their classmates.



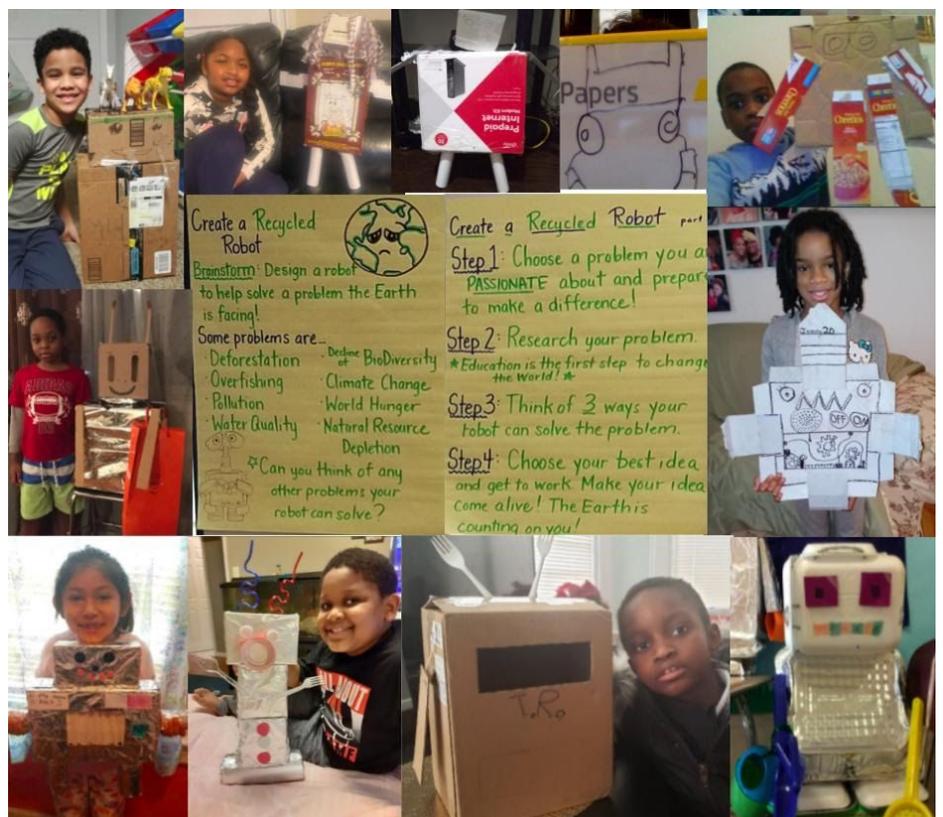
I am so proud of their curiosity and the connections they were able to make.

### Saving the World One Recycled Robot at a Time

*Our Scholars are being the change they wish to see in the world.*

Students researched man-made problems all around the world. These problems include deforestation, overfishing, pollution, etc.

Using the Engineering Design Process, they created recycled robots that will help solve a problem they are passionate about. Check out these awesome robots who cut fishing nets, plant seeds, pick up trash, filter out water pollution, and more!



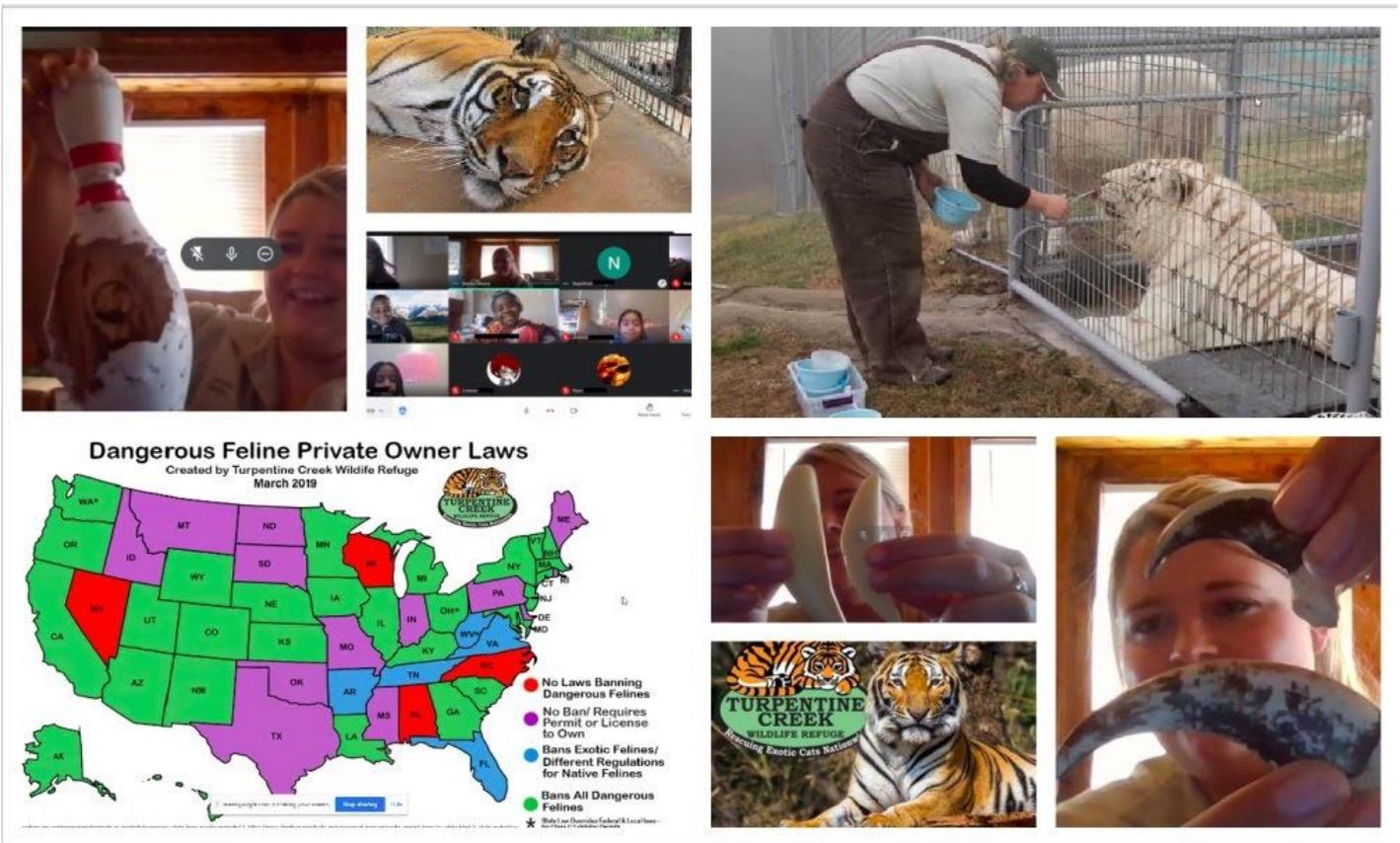
For more sneak peeks into our classroom, follow us on Twitter: [@DormannKate](https://twitter.com/DormannKate)

In addition to our classroom investigations, Scholars' students have had the opportunity to travel all over the world this school year! Once a week, we take a virtual field trip to learn more about different places, cultures, and things from the experts. This year alone, we will "travel" 52,135.4 miles!



"Good Morning boys and girls! On behalf of Dormann Airlines, it is my pleasure to welcome you aboard flight 268 with service from Orange, NJ. Federal regulations require that your cameras remain on and mics are muted. Your questions may be placed in the Google Meet chat. Take a moment to review the "Class Expectations" shared on your screen. Thank-you."

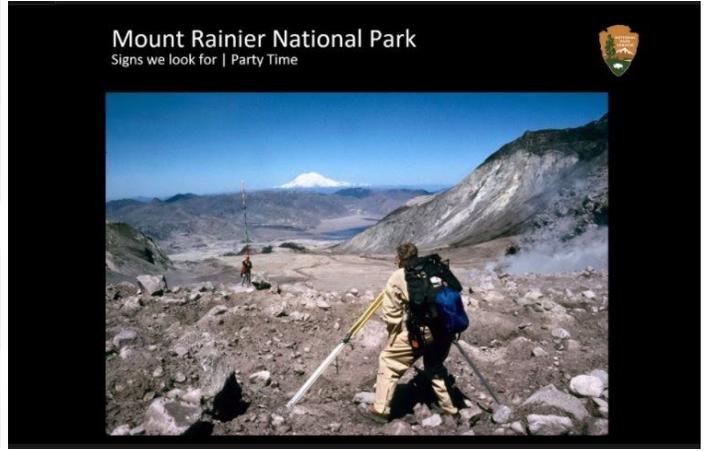
Prepare for take off!



During our trip to Turpentine Creek Wildlife Refuge, our students learned why big cats are predators, not pets. We got to meet their resident Tigers, Lions, Panthers, Bears, and more! We learned how to tell the difference between bears, and even got to compare a Grizzly bear claw to a Brown Bear paw.



During our trip to the Intrepid Air and Space museum, students got to learn about "Space Science". We toured the Intrepid and then did an experiment to learn more about the space vacuum.



During our trip to Mt Rainier, Ranger Ben taught us about volcanoes and the Ring of Fire.



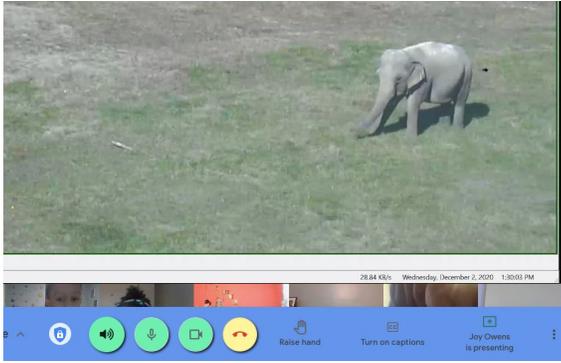
The Montana Zoo taught us all about animal adaptations. We got to meet an armadillo, snake, and tortoise. Then we got to see inside an empty turtle shell.



Full Circle Farm Sanctuary rescues farm animals and gives them a happy place to live the rest of their lives. We got to meet some of their animals. They were SO friendly! Then we learned animal enrichment!



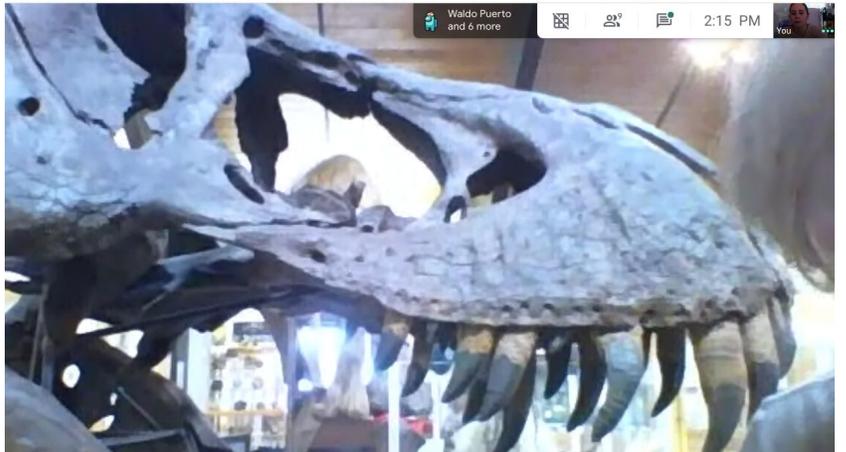
The Football Hall of Fame gave us a tour. Then we got to learn about all of the careers available in the NFL. They taught us about the importance of education and working as a team. We are all unique and together we are stronger!



The Elephant Sanctuary taught us about the different types of elephants. We got to learn about all of their “Residents” and their personalities. Then we got to look at the elephants in their habitats. Finally, they showed us an elephant tooth. Look how big it is!! You can view their live stream anytime at <https://www.elephants.com/elecama>



At the Tate Geological Museum, we got to see a mammoth fossil. They also showed us the difference between a mammoth tooth and an elephant tooth. They also explained how they make fossil replicas.



We got to see a lot of dinosaur fossils including a T-Rex, Pterodactyl, and a Triceratops. We got to see a T-Rex tooth too! Seeing these fossils against a human, we got to imagine what it would be like to live among these magnificent creatures. If Jurassic Park were real, would you go?

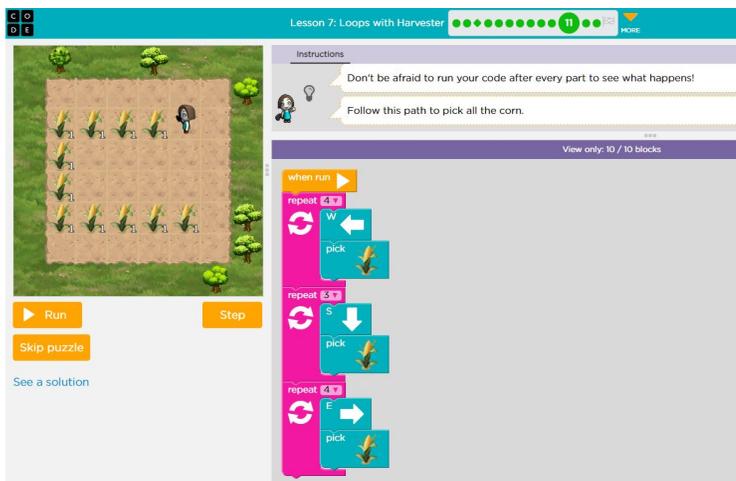
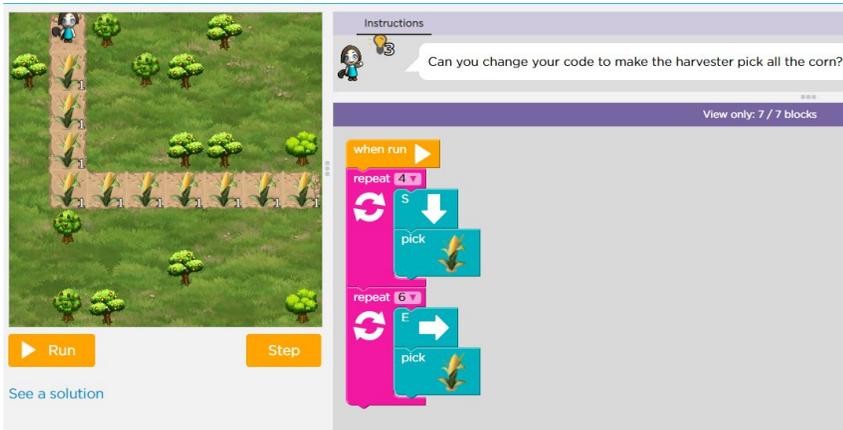


At Yellowstone National Park, we got to learn about the different animals and how they interact. We got to learn about the adaptations each animal has to help them survive. Coming up this spring, we will learn about living on a homestead, the life of a wolf, Pocahontas, and ancient maze caves. Upcoming trips also include Abe Lincoln’s library, California State Parks, and the WWF to learn about penguins, polar bears, and tigers. Check Class Dojo and Google Classroom for more information about these trips!

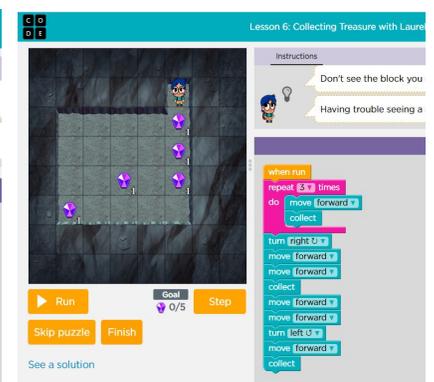
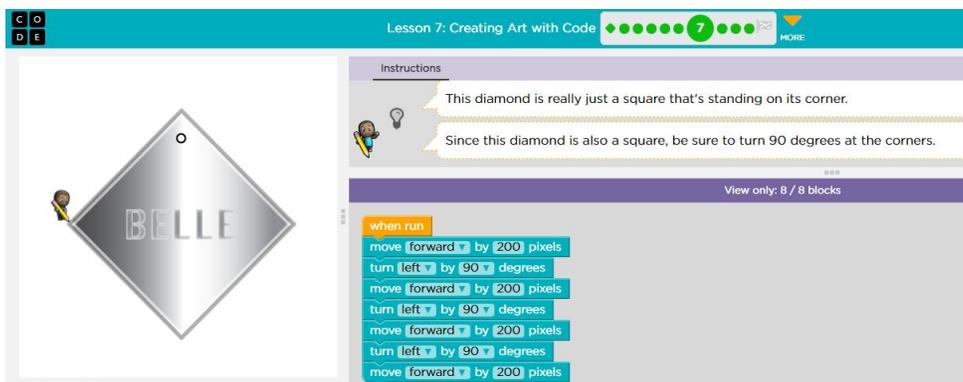
### STEM with Mrs Nadbielny

In STEM/STEAM students from 1st to 5th grade have been learning computer science vocabulary words and concepts using block based coding. We have been using a variety of platforms to learn critical skills in a fun and engaging way! Studies show that children who study computer science perform better in other subjects, excel at problem solving, and are more likely to attend college. Computer science teaches students critical thinking, and digital citizenship skills and benefits all students, no matter what opportunities they pursue in the future. And learning to make interactive animations, code art, games and apps encourages creativity and makes learning fun!

Our **1st graders** have been coding in Code.org course B learning about algorithms, loops, and debugging. We also talk about perseverance and strategies to keep going when coding can be challenging. They help each other debug their code in our breakout rooms. We read a good coding story with rich vocabulary “How to Code a Sandcastle” by Josh Funk. We discussed how Pearl and her robot friend Pascal used sequences and loops to build a sandcastle at the beach. Students have been doing a great job coding and are having fun while learning!



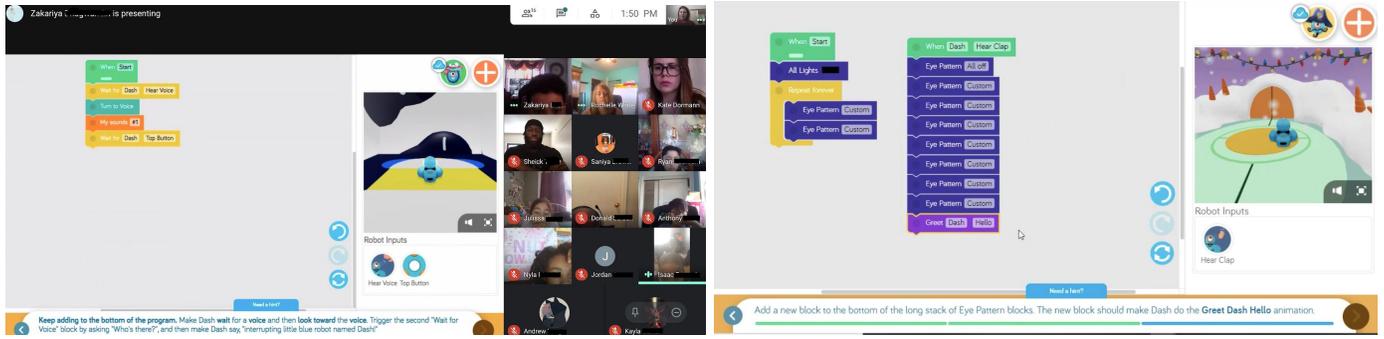
Our **2nd graders** have been coding in code.org course C learning about algorithms, loops, debugging and conditional statements. We also talk about perseverance and strategies to keep going when coding can be challenging. They help each other debug their code in our breakout rooms and even ask for more coding challenges when we finish. We read “Gabi’s If/Then Garden” by Caroline Karanja and discussed how the characters find ways to use computer coding concepts to make work and play more fun.



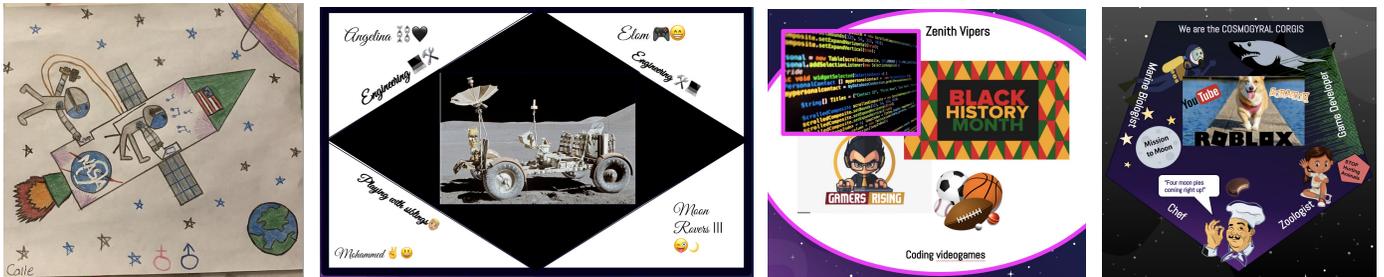
Our **3rd, 4th and 5th graders** have been programming a Dash robot in a 3D environment in Dash’s Neighborhood. Students have been fully engaged and extremely motivated by having their own personal Dash to program. Students are having fun and are being challenged as they progress through 84 puzzles while learning computer science concepts of algorithm, loop, event, conditional statement, functions, variables and debugging. Four of our students finished all 84 challenges. Congratulations to Anthony (3rd gr), Brian (4th), Lorena (5th) and Hope (5th). Students who finished selected their favorite house in Dash’s Neighborhood and are writing a story and coding Dash to go along with their story. In addition to coding we have been exploring how Kiva robots are used in fulfillment warehouses like Amazon to carry selected items to the packing station. Students have compared a Kiva robot with a Dash robot. We have also discussed how robots are built, possible uses for robots including how an engineer at NASA works on robots for Mars.



As part of our Apple Community Education Initiative, 3rd graders had a very special guest when Sheick Toure spoke to our students about what inspired him to major in computer science and minor in mathematics. He is a senior at Rutgers University and became interested in computer science in 5th grade when he took a robotics class. Next month he will speak with our 4th and 5th graders as well.



In February, our 5th graders started their Mission to Moon curriculum and competition. STEAM and Science are collaborating to bring nine challenges to our students as they work in teams remotely, competing with 55 schools across the country and in Canada. Scholars Academy has four teams competing among 322 teams as they learn about NASA space exploration and complete design engineering challenges. So far they have worked together to create a team name and badge which includes their teams interests and team name. This week they are working on building a roller coaster. They are watching each other's flipgrid videos to determine their favorite from the team to submit each week. This opportunity was made possible through a grant from Vivify STEM.



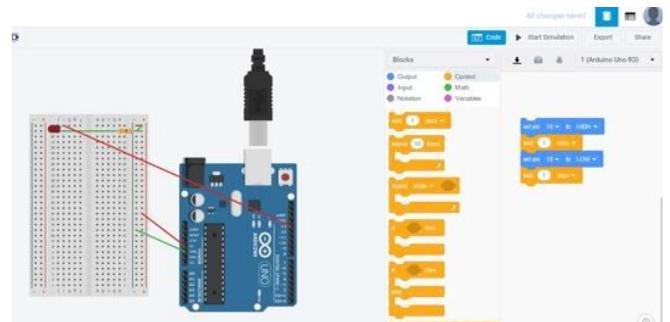
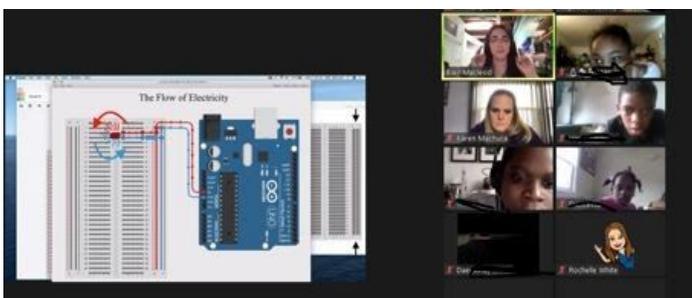
In November students learned how to be creative with a Disney Artist, Len Smith, the creator of Disney's ToonTown and more. Students watched him draw and create and asked questions about how he became an artist. Students also shared their drawings with all of us.

In December we celebrated Computer Science Education Week as students coded with the creator of Elementari, Nicole Kang. Students worked with her to create and code their own winter animation scene. One of our 4th graders has created and coded three interactive stories on elementari. Several of our 3rd, 4th and 5th graders have been participating in the free weekly Saturday story coding club with Nicole as we collaboratively write and code a choose-your-own adventure story.



<https://www.elementari.io/>

We also celebrated CSED week by coding circuits on Tinkercad with the inventor of Creator Bots robots, Blair MacLeod, an engineer. Students did a great job completing a circuit from a breadboard to an arduino and then programmed their LED light to light up.



On the evening of January 27th students from 1st to 5th grade participated in our first **Family Code Night**. Students had fun coding with a family member while learning important computer science concepts. This was a Live National online event with schools across the country participating. Several of our staff members participated as well. Some students coded with a parent while others coded with a sibling. Some of our scholars got a special shout out as they knew what conditionals and variables are in coding. 5th grader Elom said, "That was very fun Ms. Nadbielny!! 😊" Hope (5th grade) said, "That was fun my brother and I had so much fun". 1st graders Eli and Amamihe really enjoyed it too, as well as many other families!



The mom is now the student!

Follow us on Twitter [@reginamck](https://twitter.com/reginamck)

## Math Class with Mrs. White



Gifted and talented 3rd graders in Math won a “virtual” airline ticket to fly anywhere they wanted, but had to travel 100,000 miles and visit at least 5 places! 3rd graders decided where they wanted to travel using [Travel Resource 1](#), [Travel Resource 2](#), [Historic Sites](#), [World Travel](#) or google earth. They created a travel brochure of the place they visited and kept track of the miles they traveled for each trip on a google sheet. Later, they broke the numbers down into expanded notation for those miles traveled!

### OMOTOLA'S TRAVEL BROCHURE

#### MY TRAVELS AROUND THE WORLD

**PARIS, FRANCE.**

To get to Paris France I travelled through various countries, but I flew directly from Luoyang, Henan China and the total miles travelled is 85,024 from Orange, New Jersey.

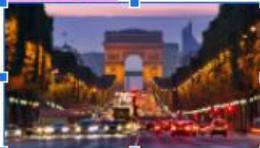
I like Paris because of the Disney theme park and their food.

**Eiffel Tower**



I visited the Eiffel Tower and had a guided tour about the famous structure. I also climbed to the top floor.

**Champs Elysees**



Elysees to shop and

**GIZA, EGYPT**

I travelled from Paris in France to Egypt and it takes 2,032 miles to get there. The city of Giza is where the famous pyramids of Egypt are, and they keep the Mummies and a lot of history of the country.

**Pyramid of Giza**



I took pictures with the Sphinx and entered inside and visited the pyramids of Khufu, Khafre and Menkaure

**Sphinx**



**Gizah Plateau**



**OTTAWA, ONTARIO.**

I went from Giza to Ottawa the capital City Ontario the journey there was 5,503 miles.

**National Gallery**



I visited the National gallery because it is full of the country's history and the spider is a good sight

**Rideau Canal**



I also visited the Rideau canal where we skated and also saw the beautiful castle

**LOS ANGELES, CALIFORNIA.**

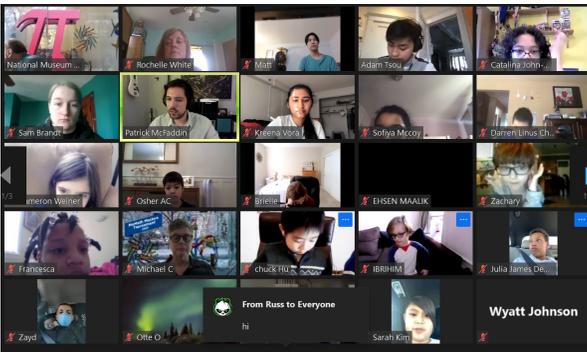
The journey from Ottawa, to Los Angeles took 2361 miles and I visited their theme parks. I like the city because of Hollywood.

Race to 100,000 Miles				Choose where you want to go using	Get distance in miles using...
				Google Earth	Distance Between Cities
Destination - city	Destination Address	Share what you like about it	Miles To Get Here	Total Miles Traveled	Expanded Notation
264 Capuchin Way, Orange, NJ	New Orleans	There a lots of historical items there	1,161	1,161.00	1000 + 100 + 60 + 1
New Orleans	DisneyLand	There a so many cool rides there!	1,650	2,811.00	1000 + 600 + 50 + 0
DisneyLand	France	I want to see the Eiffel Tower	5,648	8,459.00	5000 + 600 + 40 + 9
France	Atlanta	I want to see Martin Luther King's House	4,373.00	12,832.00	4000 + 300 + 70 + 3
Atlanta	China	I want to see the Great Wall of China	7,178	20,008.00	7000 + 100 + 70 + 8
China	California	I want to see a store called JapanLA and see Santa Monica Pier	6,970	26,978.00	8000 + 900 + 70 + 0
California	Hawaii	I want to go to the beaches that Hawaii has	5,226	32,204.00	5000 + 200 + 20 + 6
Hawaii	Australia	I want to see some kangaroos	4,998	37,202.00	4000 + 900 + 90 + 8
Australia	Egypt	I want to see the Pyramids	8,864	46,066.00	8000 + 800 + 60 + 4
Egypt	New York	I want to go to the Empire State Building	5,606	51,672.00	5000 + 600 + 0 + 6
New York	Thailand		8,657	60,329.00	8000 + 600 + 50 + 7
Thailand	Alaska	I want to play in the snow	8,508	68,837.00	8000 + 500 + 0 + 8
Alaska	Antarctica	I want to see some Igloo's	10,194	68,547.00	10,000 + 200 + 90 + 9
Antarctica	New York	I want to go to the Empire State Building	10,038	78,583.00	1000 + 0 + 30 + 6
New York	Italy	I want to taste the pizza from its home place	4,281	82,884.00	4000 + 200 + 80 + 1
Italy	Nunavut	I want to see the beautiful mountains there	3,805	88,889.00	3000 + 800 + 0 + 5
Nunavut	Germany	I want to see the Palaces that they have	735	87,404.00	0 + 700 + 30 + 5
Germany	Brazil	I want to go Ziplining	5,960	93,364.00	5000 + 900 + 60 + 0
Brazil	Russia	I want to go to St Petersburg	6,945	100,309.00	8000 + 900 + 40 + 5
				100,309.00	
				100,309.00	

Gifted and talented 2nd graders predicted and concluded which parachute would drop the egg the slowest? The parachute with 10 inches on all sides? ...with 15 inches on all sides? ...with 20 inches on all sides. We tested a parachute of 5 square inches, 10 square inches and 20 square inches. 2nd grade learned that “When you drop the egg, the strings that are attached to the sandwich bag pull down and this opens **the bag to full size**, which **creates a large surface area and more wind resistance. More wind resistance slows down the descent of the egg.**”



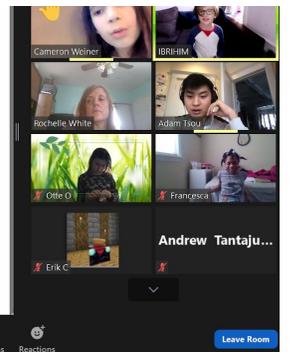
Gifted and talented fourth and fifth grade students were invited to attend Math Gym on February 17th through a Zoom Meeting presented online by the National Museum of Mathematics. Breakout rooms were used where 4th and 5th grade students could choose between 6 different levels of mathematics with 1 being the lowest to 6 being the highest level. Critical reasoning and thinking skills were the main focus of this presentation. Many problems required students to analyze and communicate their thinking and reasoning behind their strategies and solutions.



4. Six towers were built with grey cubes and white cubes. Each tower was made with five cubes. Cubes of the same colors do not touch.  
How many white cubes are there?  
(A) 10 (B) 11 (C) 12 (D) 18 (E) 30

5. The numbers 3, 5, 7, 8, and 9 were written into the squares below so that the sum of the numbers in the row is equal to the sum of the numbers in the column.  
Which number was written in the center square?

(A) 3 (B) 5 (C) 7 (D) 8 (E) 9



Level 2

1. In the figure, we see an island with a funny shape and several frogs.



How many of these frogs are sitting on the island?

- (A) 5 (B) 6 (C) 7 (D) 8 (E) 9

- (A) 3 (B) 5 (C) 7 (D) 8 (E) 9

5. The numbers 3, 5, 7, 8, and 9 were written into the squares below so that the sum of the numbers in the row is equal to the sum of the numbers in the column.  
Which number was written in the center square?



- (A) 3 (B) 5 (C) 7 (D) 8 (E) 9

6. Basil attached five stickers with the digits 1, 2, 3, 4, and 5 in some order on a sheet of paper as shown in the picture.

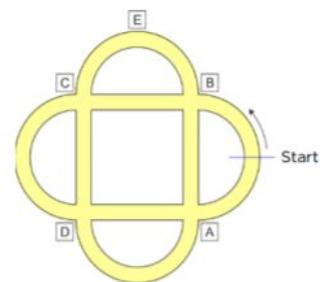


In what order could Basil have put the stickers?

- (A) 1, 2, 3, 4, 5  
(B) 4, 5, 2, 1, 3  
(C) 5, 4, 3, 2, 1  
(D) 2, 3, 4, 1, 5  
(E) 4, 1, 3, 2, 5



Pete rides a bicycle in a park with bike paths as shown in the figure. He starts from the **Start** line in the direction of the arrow. At the first crossroad he turns right, then at the next crossroad he turns left, then right again, then left again and so on, in that order. What is the sign which he will not pass?



- (A) A (B) B (C) C (D) D (E) E