

EducationUpdate

June 2022

Robotics students construct wheelchair for kindergartner

A Mountain View Elementary School kindergartner with special needs is getting a new ride, thanks to the efforts of a group of Mount Olive High School students. Members of MOHS' robotics team and students in the school's advanced robotics

classes are constructing a motorized wheelchair for fellow student Sahas Sachdev. The 5 and ½ year old was born with cerebral palsy which affects his movement and sense of balance.

The high school students designed the motorized wheelchair themselves, taking into consideration Sahas' needs, and fabricated it using mostly spare parts and batteries found in the school's robotics lab. They also 3D-

printed a few custom pieces, including a large joystick which controls the wheelchair's operation. For the past three months, the young engineers have been testing and refining the chair. They expect to deliver it later this month.

Sahas, whose name in Hindi aptly means "courage," has limited motor skills. His mother, Anamika Soni, hopes the chair will give her son something more than just mobility.

"I want him to experience a sense of independence," she said. "What that little guy has confronted and conquered is pretty remarkable and empowering him with a bit of



MOHS students Brandon Reyes, Lucas Raihna, and Preet Patel make modifications to a motorized wheelchair they built

independence is an amazing feeling. I am so thankful for the heart, time, and effort the school and students have put into this project."

Most health insurance companies don't cover electric wheelchairs for children, and the chairs themselves retail for anywhere from several thousand dollars to as much as \$20,000. After reading an article about college students modifying a kit car for a child, Soni began researching DIY wheelchair websites. She reached out to the school's robotics teacher, Don Biery, inquiring about the possibility of fabricating a chair for Sahas.

"My students and I sat down and looked at one of the websites, and the wheelchair was made of PVC pipe that you can get at Home Depot," said Biery. "I said 'Oh no. We can do something better.'"

Biery visited Mountain View to take room measurements and meet with teachers and

support staff members to learn about Sahas' requirements. Armed with that information, the robotics students went to work immediately, led by students Max Polak, Lucas Raihna, Brandon Reyes, and Preet Patel. According to Biery, the high-schoolers are excited to be able to use their skills on a project so meaningful.

"They are tackling this with such professionalism and enthusiasm," he said. "They are totally into it. 'What are you doing today?' 'Oh, I'm building a wheelchair for another student.' That's a win, too, not just helping someone who needs help. The joy in giving and seeing that what they are learning in school has relevance in the real world makes this project so special."

Biery intends to post the wheelchair design online so that robotics teams everywhere can make a difference to people in their own communities.



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**US News ranked
Mount Olive HS in the
top 9% of high
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Passion projects on display

SANDSHORE Elementary School students in Aspire, the district's elementary gifted and talented program, presented their passion projects to their parents and peers. Completed over the course of about eight weeks, the projects spanned every subject area and included topics such as trains, the Warsaw Ghetto, coding, the solar system, and climate change.

Fifth-grader Aryan Patel worked with his friend Liam Rosania on a presentation about the Iron Curtain and the Cold War. The project included a comprehensive Google slide show of key facts such as the rise of communism and the Cuban missile crisis, as well as hand-built models of an ICBM nuclear missile and a tank.

"We thought it would be good because not many kids know a lot about it," Aryan said. "I'm really interested in history and I thought it was an interesting topic."

Since Aspire harnesses the personal interests of each student, projects on display included the creative works of students.

Fifth-graders Surya Yanumula and Raymond Rosa both love manga, the popular Japanese comics which span a broad range of genres. The students wrote and illustrated their own sci-fi/samurai manga. Their story follows three kids who become hosts for the consciousnesses of aliens and grow up to be samurai.



Brooke Abromson shows off two pages of her book

Brooke Abromson, an avid reader, wrote her own book. The story tells the tale of two brothers who seek help for their parents injured in a car crash. The brothers, normally at odds, venture into the woods and experience a series of adventures that causes them to bond.

The 31 Sandshore Aspire students meet once per week afterschool. Second- and third-graders meet on one day and fourth- and fifth-graders meet another day. Library media specialist Roberta Giusto serves as the Aspire adviser.

Colorful art in a cone

Fifth-graders at Chester M. Stephens Elementary School recently served up ice cream sculptures with more flavors and toppings than Baskin-

Robbins could even imagine. The paper mache artwork was based on Cologne, Germany's "Dropped Cone" sculpture by artist Claes Oldeburg.

The eight-week project began with students planning their visions then using crumbled paper, foil, a coffee cup, and masking tape to form the skeleton armature. The paper mache was layer over the rough formation. When dried, the young artists applied tempera paint in a rainbow of colors and shaped modeling clay for use as their toppings.

"The kids love it," said art teacher Denise Palmisano, who translated the famous German sculpture into a kid-friendly and smaller-scaled project. "It incorporates art skills that students have learned in prior grades and allows kids to show off their creativity and individuality."

The project, a student favorite for many years, fits into the curriculum's art history component and also the fifth-grade focus on multimedia and sculpture.



Aiden Williams holds his ice cream sculpture

Alumna becomes assistant super

A Mount Olive High School alumna will soon take the number 2 spot in the district she once called home. The Mount Olive Board of Education appointed Sumit Bangia, Ed.D as assistant superintendent, effective July 1. Bangia replaces Lisa Schleer who left the district for the private sector.



"I'm excited to welcome her back to Mount Olive," said Superintendent Robert Zywicki, Ed.D. "Sumit is an accomplished and well-regarded educational leader. During the interview process, I was completely blown away by her expertise and technical knowledge. She's the perfect addition to our team."

Bangia brings more than 20 years of educational experience to Mount Olive. Currently, she serves as assistant superintendent in Mountain Lakes. In addition to her school and district supervisory roles there, she developed a dual enrollment program for the district, led the state reporting processes, and organized the district's strategic planning initiative. She is also an adjunct professor at Seton Hall where she specializes in teaching graduate-level courses focused on curriculum development and instructional planning.

"I'm thrilled to be returning to Mount Olive," she said. "I'm especially excited to work alongside the great educators there and reconnect with the larger school community, including both parents and students."

Bangia began her career teaching social studies at Randolph High School. She then moved on to serve as supervisor of humanities in Verona, then director of secondary education in Caldwell-West Caldwell.

She holds a bachelor's degree in secondary education (concentration in social studies) from Pennsylvania State University, a master's in administration and supervision from Montclair State University, and her doctorate in educational leadership from the College of Saint Elizabeth.

More than two dozen educators applied for the position in March. Bangia was selected after an extensive four-round interview process which involved parents, teachers, counseling staff, and school and central office administrators.



Fifth-graders learn business basics in afterschool program

THE Mount Olive School District is training the next generation of entrepreneurs. All four district elementary schools participated in TREP\$, an afterschool program that



If I do make my own business, I'll know what to expect."

Chloe Hung
Sandshore student

taught fifth-graders the nuts and bolts of entrepreneurship by walking them through product development, from concept to final sale. TREP\$, which stands for entrepreneurs, teaches very concrete business fundamentals over the program's two + months. The 190 students met weekly in their individual schools to learn a different business skill. For example, one week students wrote business plans and identified their target customers; another week they learned about marketing and effective advertising, and another it was

salesmanship and customer service. They also learned the process of cost analysis – a key to deciding which product to manufacture for sale.

The young entrepreneurs put everything they learned to the test at each school's TREP\$ marketplace, the program's finale. Here, students sold their handmade products to parents, teachers, and friends who turned out to see their creativity and ingenuity.

Among the items for sale were flower pots, artwork, fidget spinners, key chains, bookmarks, reusable bags, pet toys, dog treats, picture frames, jewelry, soap, stress balls, and slime.

"If I do make my own business, I'll know what to expect," said Sandshore student Chloe Hung about her impetus to join the program. Chloe sold healthy dog treats made with all-natural ingredients.

Entrepreneurship has always been a hallmark of America's growth and history. But with reality shows such as "Shark Tank" and entrepreneurs such as Elon Musk and Mark Zuckerberg regularly in the news, students have never been more interested in innovation and business ownership. Some young entrepreneurs found their motivation closer to home – and by looking inside their wallets.



Above, Tinc Road's Logan Macri, Riley Fazioli, and Jake Burke are prepped and ready for the marketplace; **left,** in the Mountain View cafeteria, Maureen Beil sells the small pots she made, along with candles and succulents



"I wanted to make a lot of money," said Jackson Reidinger, a Sandshore fifth-grader who credits his entrepreneurial spirit to his mother who runs her own home business. Jackson made Mount Olive-branded bookmarks, magnets, stickers, and key chains. "Selling is a lot of fun to me. The pride you feel after you sell an item is great."

TREP\$ was developed in 2006 by two New Jersey teachers. Sandshore principal Jennifer Curry introduced it to Mount Olive in 2015 when she was instructional supervisor of Chester M. Stephens Elementary School. The program was so successful, it was quickly adopted by the district's other elementary schools.

Celebrating their writing

THIRD-GRADERS in Cristina DiMaggio's class at Tinc Road Elementary School recently shared and celebrated their writing at a publishing party.

After reading several pieces of non-fiction in class, the students completed short articles on topics of their own choosing. The assignment walked the authors through the entire writing process including locating and interpreting research materials, recording notes, publishing, and then sharing with an audience.

Among the topics were cats, Mars, soccer, swimming, koalas, coding, flowers, and the dumbo octopus.

"It is important for students to celebrate their writing," said DiMaggio. "They feel pride in their work when given positive feedback and they realize

their writing is valued. That pride then becomes the motivator to continue writing."



Khushi Patel holds her work and an author certificate

CMS students win essay contest

Chester M. Stephens Elementary School fifth-graders won the top county awards in the Conserve Wildlife Foundation of New Jersey's "Species on the Edge Art & Essay Contest." Kai Collins was chosen as Morris County's first place winner; Adithi Balusamy took second place.

Kai's essay discussed the Eastern mud salamander, a threatened lizard-like amphibian indigenous to New Jersey. Kai described its diet, habitat, and unique red skin which is toxic to humans. He also suggested ways that people can help protect the species from extinction. In her essay, Adithi discussed the endangered checkered white butterfly and steps we can take protect the dwindling population.

Kai and the other first place county winners will be honored at an awards ceremony this summer.



Tackling the bridge challenge

MOUNT Olive Middle School sixth-graders put their ingenuity and science knowledge to the test by constructing the strongest bridges they could using just toothpicks and gumdrops. The structural challenge, conducted in the library throughout the day, also helped the kids develop their critical thinking skills and ability to collaborate with their peers."

Gabrielle Czernik, a civil engineer with the New York City Department of Parks and Recreation, guided the students through the hands-on STEAM activity. Each bridge had to span stacks of books set approximately eight inches apart.

"The level of excitement and

enthusiasm was incredible," said David Eisenberg, MOMS' library media specialist who organized Czernik's visit. "The students saw how the science that they're learning in school is used in real life. Showing

the relevance between what is taught in the classroom and how that knowledge is applied in the real world makes learning powerful and long-lasting."

The activity had another benefit, says Rebecca Kreider, Ed.D., supervisor of information technology and STEAM.

"Statistically, only 25 % of professionals in STEAM are women, so being exposed to successful female role models may inspire our middle school students to take more classes in the sciences. Girls need to believe they can be successful and carry that confidence into these classes and eventually into the traditionally male-dominated STEAM field."

Before the hands-on science, Czernik



Above, Civil engineer Gabrielle Czernik provides students with some bridge construction advice; **left,** Josiah Walker adjusts his team's bridge as Christian Barrow looks on

discussed civil engineering careers and the most common specializations (transportation, geotechnical, environmental, coastal, water resources, and construction). She also detailed the role of the Parks Department in managing New York City's 5,000 parks and 160 miles of waterfront.



Anti-bullying and bike stunts

BMX riders recently came to Mount Olive Middle School, combining their anti-bullying message with bicycle tricks.

The stunt cyclists – from Dialed Action Sports Team in Lincoln Park, New Jersey – conducted a presentation for each grade level. The cyclists also wove into their presentations various tips about bicycle safety and leading healthy lifestyles.

This is the team's first visit to MOMS, though the group has performed similar presentations at several of the district's elementary schools.



Dr. William Zaccheo, physical education teacher, and MOMS Principal James Kramer get an up-close view of a bicycle stunt



Ava Zaycek, Shea Galinias, and Aliza Mahmood

Bulletin board war

Fourth and fifth grade classes at Mountain View Elementary School competed in a bulletin board war.

Each class was challenged to imagine a spring-themed bulletin board and bring it to life. The boards featured a range of imagery and effects including balloons, flowers, and battery-operated LED lights. Developed by students Shea Galinias, Aliza Mahmood, and Ava Zaycek, the project inspired whole classroom collaboration and engendered a friendly class rivalry.

The champion, Deborah Siipola's fifth grade class, won extra recess time.



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