

WVCSD EdTalk: February 18, 2022

Dr. David Leach, Superintendent of Schools

The Warwick Valley Central School District offers a variety of courses throughout our schools for students interested in engineering, combining science and math to solve real-world problems. The engineering curriculum reflects many of the core characteristics of the District's Portrait of a Graduate. Whether preparing for Science, Technology, Engineering, and Math (STEM)-related careers or contributing as global citizens, today's children must be problem solvers, critical thinkers, communicators, and collaborators.

Our students begin with hands-on engineering experiences at the elementary level. Engineering is Elementary (EIE), a curriculum created by the Boston Children's Museum, is used by the District's youngest students. EIE offers "solutions (that) are rooted in the Engineering Design Process, so students learn to think like engineers."

The District first introduces the engineering design process in kindergarten. The process is a problem-solving method that students can use in any subject. Engineers frequently begin in the middle or at the end of a process, and they may repeat steps as they develop a solution. Failure is an inevitable part of the process. Failure is also often essential for eventually creating successful engineering designs and computer programs.

Engineering courses continue in Middle School, where students are introduced to a variety of engineering fields through the Project Lead the Way Gateway offerings, which include:

- Design and Modeling
- Computer Science for Innovators and Makers
- Green Architecture
- Automation and Robotics

Many courses are available at the high school level that delve even further into the fields of engineering. These include the following:

- Mechanical Engineering
- Biomedical Engineering
- Computer Science
- Constructional Engineering

Here are some highlights from our schools:

Pine Island Elementary School

Students in Melissa Lindberg's kindergarten class were in the middle of their subtraction unit. Students were asked to connect a subtraction drawing and write a subtraction equation using the minus and equal symbols. Students listened to a short math story

word problem. Then, they were asked to draw a picture answering the questions, how many butterflies were on the flower, how many butterflies flew away, and finally, how many were left. Students were then asked to write a math equation answering the three questions. As students followed Ms. Lindberg's example, they learned math vocabulary such as subtraction, minus, equal, and equation. Students discussed the story with their "turn and talk" partner and decided how to draw the picture and write the connecting equation. There were many smiles and many high fives during this math lesson.

Park Avenue Elementary School

In art class, fourth-grade students were learning about pop art focusing on Andy Warhol and printmaking. Students have been discussing pop art style and how to create etching on scratchboards to create a printing plate. Our artists used their own pop culture as inspiration for the subject of their print. They created sketch ideas, picked one, and then traced their designs onto scratchboards. This process left an etching or carving of the design, which they later colored with a washable marker, sprayed with water, and pressed. Lastly, students gave it a good massage, slowly peeled the paper away, and produced their print.

Sanfordville Elementary School

To celebrate World Read Aloud Day, all Sanfordville fourth-grade classes had a Google Meet with author Lauren Magaziner. The students just finished reading aloud her book, *Pilfer Academy*. Many students have also read books from her *Case Closed* series and *The Only Thing Worse than Witches*. Ms. Magaziner read aloud part of her new, yet-to-be-released *Case Closed* book. Sanfordville students were the first students to hear this book. Ms. Magaziner answered questions the students had on where she got her ideas, her writing process, became a writer, and much more.

Warwick Valley Middle School

Our eighth-graders have begun a poetry unit in English Language Arts. Learning how to analyze and understand poetry can help students respect and understand people's viewpoints across the world. Poetry also teaches us the impact of saying a lot in a few words. It encourages students to consider the effect of each written word. To help students break a poem down, teachers introduced them to the SIFT method, which examines the text looking for examples of Symbolism, Imagery, and Figurative Language. The SIFT method helps students look at literature past the plot. This method provides students with a way to remember breaking apart a text into its component parts. This technique leads students to the final step in determining the tone and theme of the text, based on what they gathered from the three components of the SIFT process. We encourage our students to explore the genre of poetry to expand their understanding of the world around them.

Warwick Valley High School

Last week was Electives Week at the high school. On Tuesday, Warwick Valley Middle School and Greenwood Lake Middle School students visited the high school media center. Students and teachers provided the eighth-graders with information and testimonials about elective courses in which ninth-graders typically enrolled. The classes represented engineering, biomedical sciences, music, art, computer science, and agriculture. Beginning on Wednesday and for the rest of the week, students in grades 9 through 11 had the opportunity to explore electives during unit lunch in the Main Lobby. Representatives from electives in every department were available on their assigned day to expose students to the many opportunities available. Students also had the chance to learn more about the C-Tech options available. On Wednesday, Warwick Valley 10th-graders traveled to the BOCES Career and Technical Education Center in Goshen to explore the courses offered. On Friday, students had the opportunity to visit our three in-house C-Tech courses: Cosmetology, Video Production, and Criminal Justice. Ms. Bettello, Mr. Cecconie, Mr. Avila, and their students highlighted examples and performed demonstrations of typical project-based activities from the curriculum. They also provided information and answered questions about their programs.