

WVCSD EdTalk: October 19, 2022

Dr. David Leach, Superintendent of Schools

All Warwick Valley Central School District students are eligible to participate in our popular Partners in Education (PIE) program. The PIE ideology supports bridging the gap between home, school, and community, providing educators with a helpful support system and parents with a window into their child's learning environment.

PIE is a multi-age classroom grouping that facilitates non-competitive, collaborative social interaction, and supports children along their development continuum, also providing valuable opportunities to be mentors and mentees. PIE classrooms connect home, school, and community, through teaching and learning and are places where teachers, students, and parents collaborate as partners with district leadership's full support.

The four pillars of the PIE program are:

- Multiage class groupings
- Integrated curriculum
- Outdoor learning
- Parent/family involvement

Our elementary PIE classrooms are located at Sanfordville Elementary, and our fifth and sixth graders attend the Middle School. There is a two-year commitment to the program at the grade levels of 1/2 and 3/4. PIE Kindergarten students must commit to the entire school year.

For the 2022–2023 school year, we have added an additional PIE Kindergarten section. The program now serves 149 students in two kindergarten classes, three first- and second-grade classes, and three third- and fourth-grade classes. We are also in our second year of implementing the Math Expression Series resource, specifically geared toward multiage classrooms.

A PIE Community group meets monthly and works collaboratively with PIE teachers and administration to plan, support, and enhance lessons and activities. Upcoming PIE events include a Parent Volunteer Meeting on Thursday, October 20 at 6 p.m., and the PIE Fall Fest is on Thursday, October 27.

To learn more about this program, visit our district website – www.warwickvalleyschools.com – and find PIE under the Instruction tab.

Here are some highlights from our schools this week:

Park Avenue Elementary School

A recent Fire Safety Assembly by the Warwick Fire Department included an informative and engaging 40-minute presentation on fire trucks, safety gear, and fire safety protocols. As part of the event, students were able to spray a fire hose and tour the various fire trucks that were driven to the school. Students saw firsthand what a firefighter looks like when fully outfitted and learned all about the gear they wear. Finally, they learned the steps they should take in the event of an actual emergency, and watched as firefighters demonstrated some of these measures. Park Avenue students were so excited to meet and speak with our local firefighters. To everyone who came to participate, thank you for your service and for visiting Park Avenue!

Sanfordville Elementary School

It's apple season in Warwick and Sanfordville! Suzanne Havell's kindergarten class participated in some fun learning with their fourth-grade buddies in Sherry Wishnia's class. The kindergarten class was learning all about apples, reading books on apples and graphing their favorite apple after taste testing a few different varieties. When their fourth-grade buddies joined them, they read a fiction book called "The Biggest Apple Ever," and the children worked together to make an apple craft using the tear paper technique to work on their listening skills and build their fine motor skills.

In Lauren Hughes' PIE 1/2 class, a student brought an apple for the teacher, which sparked a mass amount of curiosity about the fruit. This led to a two-day apple immersion where students both read and wrote all about apples. Their studies concluded with a semi-impromptu apple party where parent volunteers came in to help them make homemade applesauce, apple and gelatin bird feeders, and apple anatomy posters.

Warwick Valley Middle School

Jilleen Flynn's and Teadie Becker's social studies students received a visit from an "alien" recently. The students are assisting this alien with finding natural resources that will help his people survive on planet Earth. This storyline was presented to students as a launch into a study of geography and the impact it has on civilizations. Our sixth graders are beginning their study of geography and will be exploring the benefits of various land and water resources. We are looking forward to learning how our new alien friends will develop a new life on Earth.

Warwick Valley High School

One of the more popular elective programs offered at the high school involves the Project Lead the Way - Biomedical Science courses. Offered as a three course sequence, PLTW Biomedical Science applies real-world issues by exploring topics like disease, DNA analysis, prosthetic design, public health, and more. Along the way, students gain experience with state-of-the-art tools and techniques that are used by professionals in hospitals and labs every day. Students prepared written communications that highlight the work that is being done in each of the three elective courses.

PRINCIPLES OF BIOMEDICAL SCIENCE, by Anastasiya Kuchynska, Grade 11

As students are initializing their journey in their very first course known as Principles of Biomedical Science, they begin by placing themselves in the role of young forensic scientists. Students inspect a crime scene with a victim, analyzing the pieces of evidence they have collected for any clues to the victim's death. During the process of analyzing interviews received from the suspects, students learned how to correctly read and examine polygraphs (that include heart and breathing rate monitors) to determine if the answers given were sincere. What are some ways in which you can tell someone is lying through a polygraph? Some of the suspects lied and some told the truth, however students needed to understand the significance of data from the polygraph against the factual information and clues they have found. Students then began analyzing evidence from the scene. They started with analyzing fingerprints. How do you analyze fingerprints? Hair analysis under a microscope was also conducted in order to identify to whom the hair found at the crime scene belonged. What characteristics do you look at while analyzing hair? Who do you believe is most suspicious, at this point in the investigation?

HUMAN BODY SYSTEMS, by Sophia Samborski, Grade 11

Each body system reveals something different and interesting about the body as a whole. Just from our bones we can determine height, sex, and gender through something called "Forensic Anthropology." Second-year students partaking in Human Body Systems are able to use several techniques to determine insights about a human based on their body. How are forensic anthropologists able to find details about the deceased just from the measurement of bones? Which bones reveal which details such as sex or gender? What are the defining features that let us distinguish someone's ethnic background, age, even height? Students are learning about different terms about the body called regional and directional terms. Students are learning about how to identify different areas of the body and are creating their own skeleton mannequins which allows students to learn about the different body systems in more detail. Can you name the regional term for the knee? The head? Even the bend of our knee has a name - Can you name it?

MEDICAL INTERVENTIONS, by Vincent Pinnavaia, Grade 12

In our third year of Biomedical Science, called Medical Interventions, we've been looking at how outbreak of diseases occur in public places. The specific example used in the PLTW program is an outbreak at a college campus. We've been learning how different diseases spread through different pathogens, such as bacteria, viruses, or fungi, and how to identify the causing pathogen. One way we've learned is with DNA sequencing and BLAST. DNA sequencing is the determination of the order of bases of DNA strands. It now takes scientists a few hours to determine the order of them, but when scientists were first trying to figure out the human genome or the DNA sequence of humans, it took them 20 years! Can you explain how scientists

figure out the bases of DNA? BLAST or Basic Local Alignment Search Tool has access to Genbank, which is one of the largest databases of DNA sequences, that continues to add new information to databases. Using DNA sequences given to us, and entering them into BLAST, we found that the pathogen at the college was a bacteria, specifically bacterial meningitis. How do you think such a disease could spread at a college campus? What kind of symptoms are usually attributed to meningitis? Another thing we did in class was a process called ELISA or enzyme-linked immunosorbent assay. We had to be very careful with the materials given. These tests are used to see if a person is infected with a certain pathogen using a body fluid sample, in this case it was a sample of spinal fluid. The process of rapid pregnancy, strep, and COVID tests are based on the ELISA process. Can you explain how ELISA or some of the rapid tests work?