



CLEVELAND CITY SCHOOLS CAREER & TECHNICAL EDUCATION

NEWSLETTER

January 2023-February 2023

Computer Science

Computer Science is the study of computers and computational systems. Unlike electrical and computer engineers, computer scientists deal mostly with software and software systems; this includes their theory, design, development, and application.

Principal areas of study within Computer Science include artificial intelligence, computer systems and networks, security, database systems, human computer interaction, vision and graphics, numerical analysis, programming languages, software engineering, bioinformatics and theory of computing.

Although knowing how to program is essential to the study of computer science, it is only one element of the field. Computer scientists design and analyze algorithms to solve programs and study the performance of computer hardware and software. The problems that computer scientists encounter range from the abstract, determining what problems can be solved with computers and the complexity of the algorithms that solve them, to the tangible, designing applications that perform well on handheld devices, that are easy to use, and that uphold security measures.

Here at Cleveland High school, we offer an range of Computer Science courses- Computer Science Foundations, Cybersecurity, Computer Science AP, Cybersecurity Dual Enrollment, Web Design, and Work-Based Learning.



Students in computer science finished their hardware module by opening PC's and inspecting/labeling hardware components. Students enjoyed this hands -on approach to learning how computers work internally.

With the new legislative mandate by Governor Lee, Computer Science will soon be more visible for the state of Tennessee. Starting in 2024, Computer Science will be a requirement for all students beginning in elementary schools. Before students can graduate they will be required to complete a computer science course. As we prepare to make these changes throughout Cleveland City Schools, we are ensuring that CTE remains at the core of what these courses offer. We are keeping our vision and focus for students at the center of these changes and are excited to see where it leads them in the future.

For more on this new requirement, visit: [TDOE Overview](#)



Arnold Elementary School

The students read a book about Dr. Martin Luther King Jr., Martin's Big Words, and learned that a square with side length 1 unit, called 'a unit square', is said to have 'one square unit' of area and can be used to measure area. They created words that had a "big" meaning out of linking cubes and counted the cubes to get the area of the word.



Blythe-Bower Elementary

Students in first grade learn about tools that scientists use.



Candy's Creek Cherokee Elementary School

This is a photo of testing first grade family take home STEM projects.



E.L. Ross Elementary

Students practiced their piloting and safety skills while flying drones. They learned about how drones work and are used.



George R. Stuart Elementary

Fifth grade students built different contraptions to help them practice the important skill of identifying what needs to be improved in a design. When students encountered a problem moving a ball through their contraption, they paused to record a solution before testing it out.



Mayfield Elementary

Third grade learned about suspension bridges and how they function. They had to build a suspension bridge with yarn, Legos and popsicle sticks. It had to withstand 500 grams and still be suspended high enough to allow passing underneath. They did a really great job using the Design Process in their designs.



Yates Primary

Members of Yates STEM have been busy learning how to make a movie using a green screen. Some of the club members demonstrated this process at the Yates/Ross STEAM night.



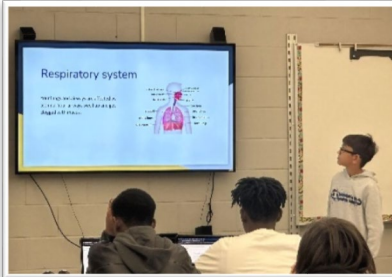
Show Production

Raider TV students work hard each day to record their announcement show. Be sure to check the show out each morning.



Computer Science

Students learned about the hardware of a computer. Here they are getting their hands on a variety of computer parts.



Research & Present

Medical Science students had the opportunity to research and present on the respiratory system diseases in class.



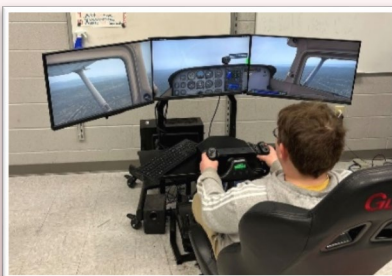
Health Science

Eighth grade students in the health science class worked on spine boarding and patient transportation.



Strength Building

Student's in the engineering class are discovering that engineers can learn from their mistakes and then they recreate the engineering disasters.



Taking Flight

Engineering at Cleveland Middle School covers many topics. One of those being gravity in aviation. Students get to test their piloting skills on the flight simulators.



New Faces

CHS AFJROTC would like to welcome MSgt (Ret.) Chris Berney to the Blue Raider Corps family! He's the new Aerospace Science Instructor, and we're very excited to have him on board!



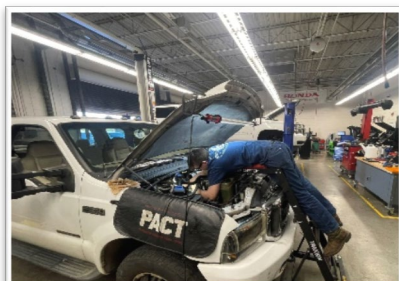
Middle School Recruiting

AFJROTC took a trip over to Cleveland Middle School to speak to the 8th grade students about the program and opportunities with JROTC at the high school level.



Competition

Our Cyber Patriot team was one of only two teams in TN to advance to the semi-finals after competing at the Gold Tier Level in the All Services Division.



Getting Experience

CHS Automotive Student changes Fuel Injectors on a 2000 Ford F350 with a 7.3 Liter Diesel Engine. This is a 6 hour job for an experienced technician. The equipment needed to make this job easier and make the students more efficient was already here.



Certification

These level II Automotive students earned stage 1 of a three stage, state recognized, Automotive Electrical Certification.



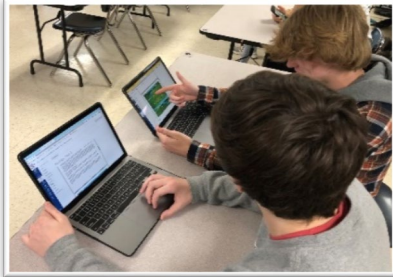
Post Secondary Opportunity

Automotive Students got to explore Post Secondary Opportunities with UNOH. Scott brings a lot of interesting information to our students concerning work ethic, finances, and life skills.



Podcast on Tango Flight

Col. Campbell had the honor to participate on a TSBA podcast about Tango Flight with school board member, Mr. Tucker, Director of Schools, Dr. Dyer, CTE Supervisor, Mr. Whittenbarger and host, Jenna Ambrose. It's exciting to see how Tango Flight is impacting our students, school, and community.



Flight Rules

Advanced Aviation classes studying instructions and flying the procedure for the typical visual flight rules pattern.



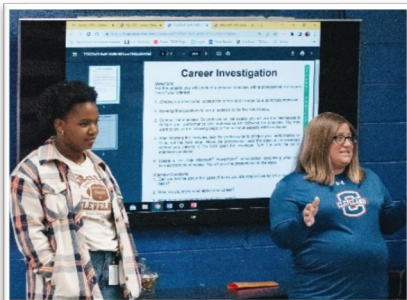
Flight Patterns

Aviation 3 students learning how to plan a visual flight plan the old fashioned way- paper, pencil, plotter, and E6B flight computer.



Community Influence

We are very thankful for Express Athletics for coming in and helping our students grow their knowledge with our equipment and showing us the roads to become an entrepreneur!



Plan for Success

Intro to Business students started Career Investigations with the CHS Counseling office. This helps the students to get prepared and understand what they are looking for in a career.



Career Path Options

Yvonne Newman, a real estate agent at REMAX, came to speak to our business classes today, and let me just say it was a "flip". These students left the class "sold" in knowledge about this career path.

COSMETOLOGY



Beauty Genres

Cosmetology students practice different genres of makeup; pop art, beauty and theatrical.



Practice Makes Perfect

Cosmetology students practice acrylic nail application.



Community Involvement

The Cosmetology students participated in the “Girls Night In” at the Arnold Elementary school wide event. The high school students enjoyed spending the evening with the elementary girls.

CRIMINAL JUSTICE



Finger prints

Cleveland High School Criminal Justice Finger print matching. It's not as easy as you may think.



Testing

Criminal Justice students practice DUI testing. This helps teach students to be professional Police Officers.



Lawmaking

Criminal Justice 3 class is looking at law enforcement current events. As a “Legislator”, this class is making changes to laws and looking into what else could be done to maintain public dignity.

CULINARY ARTS



Safety First

All current culinary students passed the safety test and now they're getting into the basics which is knife skills.



Catering

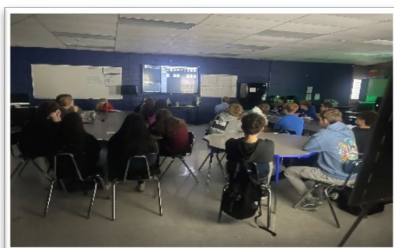
The Culinary classes are in high gear doing catering for events, such as the Rotary Club and the district basketball coaches meeting.



Identification

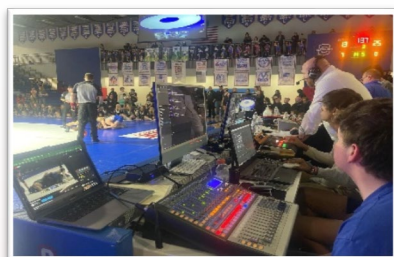
The Culinary Level 1 students doing their kitchen equipment identification test.

DIGITAL MEDIA



New Faces

A new semester means new Digital Media students. They've been shown around the studio, control room and classroom. Looking forward to seeing the content they will be learning to produce throughout the semester.



Live Stream

The CHSLive team did an amazing job with back to back live streams for the Cleveland wrestling & basketball teams.



Industry Experience

The CHSLive team had an amazing opportunity to run the livestream and video production for the Chattanooga Football Club VS Atlanta United Soccer game in Chattanooga's Finley's Stadium.



@BLUERAIDERSLIVE



@CHSLIVE



CHSLIVE



CHSLIVE



Team Work

Students in the Medical Therapeutic classes learn how important it is to work as a team in the healthcare field.



Lab Time

Anatomy & Physiology students learning skeletal anatomy by doing a forensic anthropology lab.



Hands on Learning

Diagnostic Medicine students learning ultrasound techniques by practicing on each other.



Technological Timeline

IT Academy students explored certain technological devices to create history timelines. Once completed, they shared through round table discussions. It was a great way to learn how technology has changed.



Tour

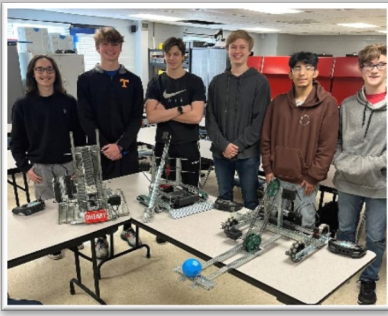
Computer Science AP students got a virtual tour of Amazon to see how technology works within manufacturing plants. It was informative and interesting to watch!



Creating Websites

Students in the IT Academy classes played an icebreaker game of fact finding. It's a great way to practice teamwork and learn about their peers.

ROBOTICS



Projects

Students presented their VEX Robotics Projects. These were designed by the students and had a list of requirements the robot had to meet.



Scrimmage

Our Robotics Club, Ministry of Mechanics, enjoyed attending the robotics scrimmage at Baylor High School.



STEM Skills

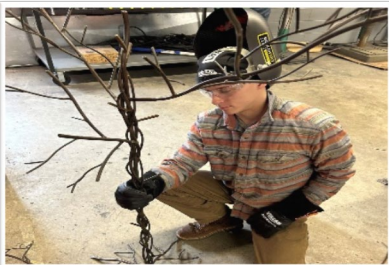
Robotics Engineering students were asked to build a structure using toothpicks, marshmallows, and spaghetti noodles. One of the requirements of the structure was to support a book. The students exemplified STEM Skills all while having fun.

WELDING



Repairs

The welding students helped repair some of Cleveland High School's weightlifting benches.



Student Project

Welding Academy student, William Scannapiego, completed a project of making a tree out of metal.



Competition

Welding students are practicing an uphill weld test for the welding competition in February. Five students will go to compete and show off their skills.

Contact the CTE Supervisor

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rwhittenbarger@clevelandschools.org

Important Dates

February 28

Senior Interviews

March 6-13

Spring Break- Schools
Closed

April 7

Good Friday- Schools
Closed

April 20

CTE Award Banquet

May 25

Last Day of School- Early
Dismissal



Connect with us!

Join us on social media and stay up to date on many
of the great things happening here everyday.



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Created by Jennifer Higgins