What is CTE?

Career and Technical Education (CTE) bridges the gap between high school and postsecondary plans. CTE gives high school students the chance to get a head start on preparing for college and careers. In CTE programs students learn how core school subjects like math, science and writing are used in real-life. CTE students have the opportunity to participate in hands-on training in their chosen program and gain real world experience through job shadows and internships. Many programs offer students the opportunity to earn nationally recognized certifications.

In Cleveland City Schools, students get CTE exposure beginning at the elementary level with STEM classes. STEM stands for science, technology, engineering, and math. Teaching STEM in elementary grades opens the door for students to develop a strong foundation in science, technology, engineering and mathematics. Teachers can foster unique opportunities for students to practice critical thinking, problem solving, and collaboration, among other skills.
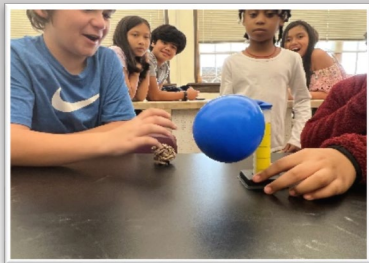
Career exploration provides Cleveland Middle School students with an awareness of post-secondary options, engage student thinking about the future, and help students make connections between future interests and academic choices and achievement. Cleveland Schools offers Business Communications/Coding, Digital Media, Medical Science and Engineering to it's students.

Students enrolled in the Health Science EMS class get to experience what it's like to work on a full-fledged ambulance. Health Science is just one of the many areas students can explore in CTE.

Cleveland High School's CTE teachers base their instruction on the Tennessee State Standards for CTE. These are grouped into 12 career clusters plus elementary and middle school content. Within each cluster, several programs of study can help students concentrate in a specific area. Each program of study consists of 4 levels/courses, of which a student must complete two in consecutive order to be considered a concentrator. These programs offer students a direct pathway to college and/or career and lead to meaningful employment. Students in our CTE programs graduate with industry licenses and certifications as well as college credit.

Whether students go straight into the workforce or on to higher education, Cleveland City School's goal is for students to have a direction of where they want to go in life and CTE can have a huge impact on that direction.

Arnold Elementary School

The 5th grade students at Arnold are learning about chemical reactions. We conducted an experiment using baking soda and vinegar. The reaction caused the balloons to blow up.
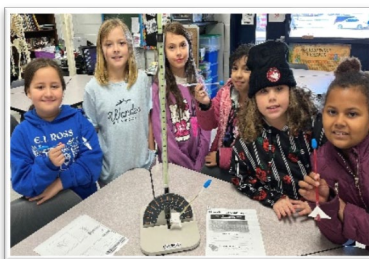
Blythe-Bower Elementary

Third grade students are using Snaptricity sets to study open and closed circuits.

Candy's Creek Cherokee Elementary School

These 5th graders worked through several steps of the Design Thinking Process today with Mrs. Collins (Dr. Booklove). They were designing a turkey obstacle course!

E.L. Ross Elementary

Students used each letter of STEM when engineering and testing straw rockets. They learned about forces affecting rockets, used math and technology for accurate data collection, and made improvements with a redesign.

George R. Stuart Elementary

Third graders at Stuart work together to plan, build, test, and improve a "robo hand" that will pick up a ball. Teamwork makes the dream work!

Mayfield Elementary

Third grade enjoyed learning how to code with Ozobots this month. They used their coding skills to create an algorithm, then downloaded the algorithm to their ozobot. They loved seeing the Ozobot read their code.
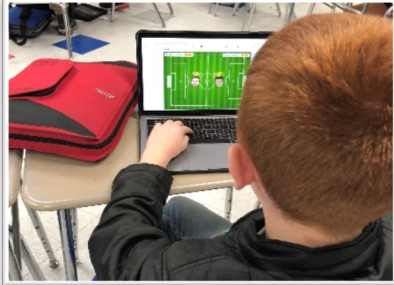
Yates Primary

Yates students demonstrated their knowledge of forces and motion by creating, and testing, marble mazes. Once their maze was complete they challenged their classmates to complete their mazes.

CMS DIGITAL MEDIA & CODING

Show Production

Seventh grade students have begun filming portions of their special news segments. They have prepared every portion of the segment from pitching an idea to a final product when complete. Stay tuned to Raider TV future episodes to check them out.
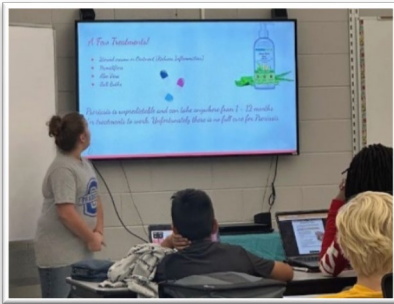

Coding

The students in coding are learning how to make two people controllable in their interactive soccer game.

CMS MEDICAL SCIENCE

DIY Science

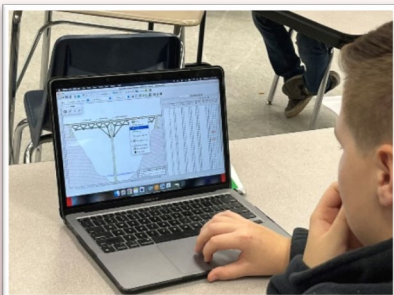Medical Science students made working models of the respiratory system today.

Medical Conditions

Medical Science students getting to present in class over abnormal skin conditions and their treatments.

CMS ENGINEERING

Strength Building

Engineering students built structures and tested them by seeing how much they would hold before the structure broke.

Virtual Engineering

Sixth grade CTE students learning how to design and test bridges through virtual simulation programs.

AIR FORCE JROTC

Making Progress
Cadets practiced their drills to progress toward mastery of the 30-step sequence.

Field Trip
AFJROTC students took their first field trip to Arnold Air Force Base to learn about the amazing testing they do there at AAFB.

Community Showcase
For Veterans Day, the color guard and flag detail cadets were showcased at Amazon CHA2, Cleveland Middle School, and Garden Plaza.

AUTOMOTIVE

Senior Interview
These seniors participated in the Senior Interview session, hosted by the Chamber of Commerce, which strives to give students real-life interview experiences. They dressed professionally for their field of interest, completed an application, cover letter, and resume. They did a great job which was reflected in their scores from the Chamber.

Choosing a Profession
Nashville Auto Diesel College (NADC) presents post-secondary opportunities to our CHS Automotive Students.
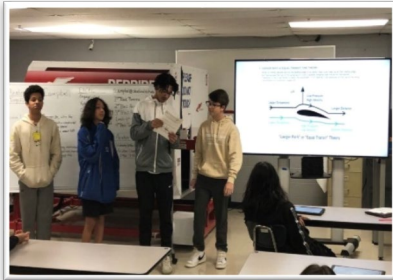

Post Secondary Opportunity
Automotive Students explored post secondary opportunities at Miller Industries, the world's largest supplier of recovery vehicles, including the M-100 which is the biggest recovery vehicle in the world.
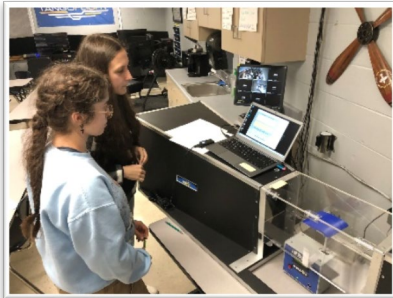
AVIATION

Tango Flight
Tango Flight is back to building after a short break for inventory maintenance. Students and mentors are excited to get back to work.

Theories Presentations
Aviation students briefed the class on five unique theories of lift for a wing. They created the discovery story, applied one of Newton's laws of motion and framed it with the four forces of flight. A great day with Design Thinking.

STEM
Aviation 1 students explore airfoil lift calculations through formulas, computer simulation, and wind tunnel modeling. Students working all aspects of STEM.

BUSINESS

Presenting Ideas
Smart Faculty Institute, operated by Peak Performance, gave CHS Business Academy students an opportunity to show their skills by presenting ideas for their grand opening which is coming soon. This group was the finalist!

Plan for Success
Students in the Business Academy are working on becoming full-fledged entrepreneurs by learning how to create their own business plan.

Raider Evolve
The Raider Evolve team is working on designing and printing posters for the brand new cookies and coffee fundraiser for their department.
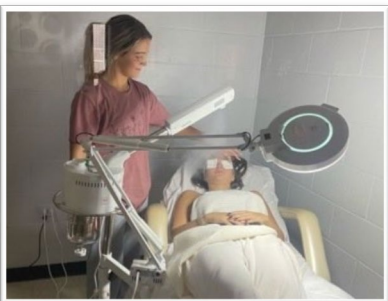
COSMETOLOGY

Hair Services
Cosmetology students performed hair services on our visitors with the GAPP program from Germany.

International Trends
Cosmetology students performed nail services on our visitors from Germany. All the students enjoyed getting to speak to each other about the beauty trends, the industry and even Christmas traditions.

Making Improvements
Cosmetology students perform professional facial treatments that can improve the appearance of the skin.

CRIMINAL JUSTICE

Overview
Criminal Justice class had GAPP students from Germany visiting their class. CHS students gave them a basic overview of the American justice system.

Due Process
Criminal Justice students led the students from Germany through Due Process. The students had a great time together and did a great job teaching the students from Germany about our judicial system.

Mock Trial
The Criminal Justice students wrote and played out an assault trial at the request of our visiting German students. They did a fantastic job and our German friends really enjoyed seeing how things work in America.

CULINARY ARTS

Leading Students
Culinary had their first Skills USA meeting and decided the officer's for 2022-2023 year. They have more events coming up which means more hands on time in the kitchen.

Recipes for Life
Culinary Arts Level 2 is learning how to make fresh pasta, lasagna and ravioli. This is a great recipe for getting family involved and making it a fun dinner!

Mastering Desserts
Culinary Arts Level 2 has started making cheesecakes which is probably one of the most difficult desserts to master. The students made three different cheesecakes, caramel pumpkin, oreo chocolate cheesecake, and NY cheesecake with strawberry sauce.

DIGITAL MEDIA

Premier Show
The Digital Media 2 class put on their first show. They had a few guests in their green room and several classes watched live. All of Cleveland High School was able to watch later through a shared link if they didn't catch the show live.

International Visit
Guests from Germany with the GAPP program came by to see what is going on in the media class. CHS students took a minute to interview and see what high school is like for them. It was so awesome to be able to share what we do with the world.

A Day in the Life
The Digital Media classes put together a video called "A day in the life". The video shows off the studios, equipment, and production rooms along with some of the tasks students have to do to make the show come together.

HEALTH SCIENCE

Heart Lessons
Anatomy and Physiology students learn the anatomy of the heart by doing a heart dissection.

Lab Time
Medical Therapeutics doing various labs in our Labor & Delivery unit. The students favorite thing is to learn how to swaddle a newborn baby.

Hands on Learning
Diagnostic Medicine students perform simulated urine collection and diagnostic skills.

INFORMATION TECHNOLOGY

Duck, Duck
Duck week! Computer Science students adopted their rubber ducks before our programming unit. To find out what ducks have to do with programming, ask one of these students!

Community Involvement
Many thanks to Lisa Mantooth and Mr. Koz for showing the computer science students how IT operates at Wacker Chemical Company. The students enjoyed seeing the impressive facilities and even met David Wilhoit, President and CEO.

Creating Websites
Web Design students presented their website progress in class to receive constructive criticism from their peers. This group is going to have some very creative websites by the end of the semester!

ROBOTICS

Looking Back

Robotics 1 students created a Manufacturing Timeline. They were tasked with including each decade from inception until present day. The students did a great job and learned a lot about the Industrial Revolution.

Catapulting to Excellence

Robotics students have been working on the Vex Robotics catapult build. This will be the third build of the semester.

Robot Battle

Robotics 2 is finishing up on the VEX Robotics Moby Flipper Bot. These robots will battle in the Vex arena once completed. CHS students are engaged and excited about this competition.

INTRODUCTION TO TEACHING

Pathways

Andrea Phillips, the Elementary BLADE facilitator for Cleveland City Schools, came to speak to the class about her experiences as an elementary teacher at Blythe-Bower. She shared a wealth of knowledge about her pathway, schedules, responsibilities, teaching philosophy, and challenges/rewards.

Classroom Experience

Emma Blackburn (freshman) is enjoying her placement at Cleveland Middle School. Here, she is seen in Mrs. Creel's classroom. Emma was helping to model the traditional addition of three digit numbers with regrouping and comparing it to expanded addition.

Going Back

Ivette Alonso (sophomore) is seen here with Mrs. Hundley's 3rd grade class participating in a Fire Prevention event at Stuart Elementary School. Ivette is enjoying her placement with Mrs. Hundley, especially since Ivette is a former student of hers.
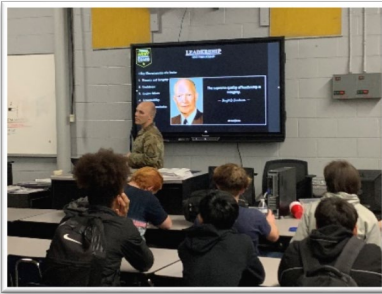
WELDING

Principal Visit

Cleveland High School's principal, Mr. Pritchard, came down to welding, to not only practice his own trade skills, but to congratulate another senior for completing their OSHA-30 training.

Project Build

The Welding Academy was honored to have a project to build for Mueller Company. They fabricated and welded a sign that looks like a fire hydrant.

Character Building

Welding is not just about welding. This class teaches responsibility, leadership, hard work, and team work. Very thankful to have had the National Guard for presenting a lesson on leadership today.

A Message From
The CTE Supervisor

Cleveland High School CTE

850 Raider Dr. Cleveland, TN 37312

(423) 472-8098

rwhittenbarger@clevelandschools.org

November 30, 2022

This should be posted in every high school.

The average Student Loan Debt is $37,358.

We don't need to encourage all of our young students to put themselves in financial debt early in their careers, especially when there are so many options to make a good living.

Now, there are students who should be investing in STEM 4-Year degrees. In fact, that is the highest career selection for Gen Z's right now. But there are plenty of career paths that have massive unemployment and 4-year degrees that are not hirable. Check out the graphic below for some of these career paths.

YOU HAVE CHOICES!!
You Do **NOT** Need a 4-Year Degree To Make a Good Living...

Welder	$22 - $35/hour
Robot Programmer	$34 - $46/hour
Electrician	$23 - $31/hour
Tool & Die Maker	$24 - $37/hour
HVAC Tech	$25 - $39/hour
CNC Machinist	$22 - $29/hour
Plumber	$28 - $45/hour
PLC Programmer	$41 - $76/hour
Mechatronics	$25 - $34/hour
Machine Operator	$24 - $31/hour

Enroll in Trade Schools & Community Colleges
#TheManufacturingMillennial

Sincerely,

Renny Whittenbarger

Important Dates

December 21
Early Dismissal for Christmas Break

December 22-January 4, 2023
Christmas/New Year Break – Schools Closed

January 9
Students Return to School

January 16
Martin Luther King Day- Schools Closed

February 20
President's Day- Schools Closed

March 6-13
Spring Break- Schools Closed

COMMUNICATION | COLLABORATION | CREATIVITY | CRITICAL THINKING | CHARACTER |

Connect with us!

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

@ccscte   @ccscte

Created by Jennifer Higgins