

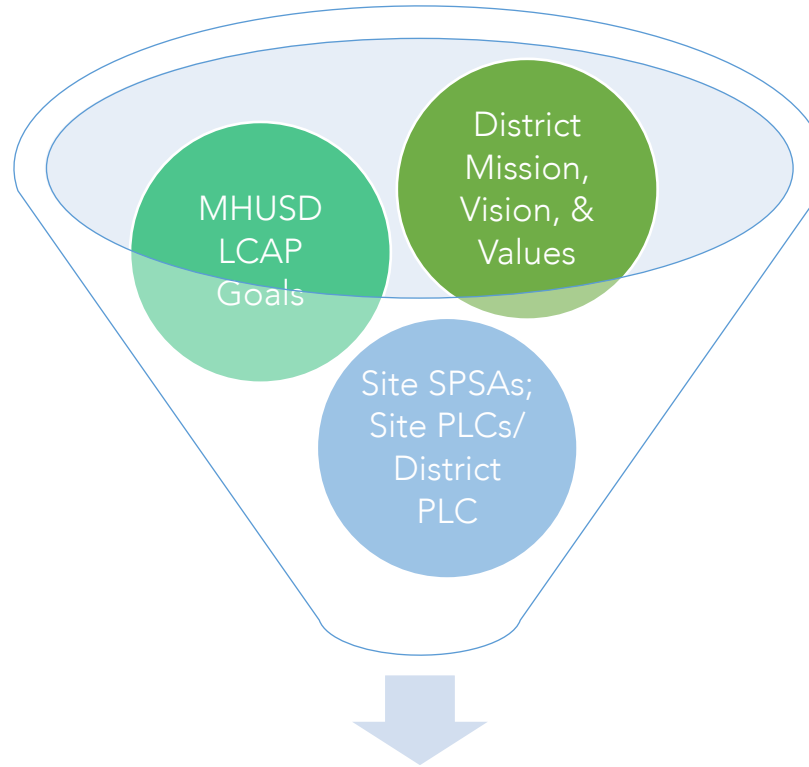
The background is a dark chalkboard filled with white chalk markings. At the top, the gravitational force equation  $F = G \frac{m_1 m_2}{d^2}$  is written. To the left, the energy equation  $E = mc^2$  is visible. Below it, the wave equation  $\frac{\partial^2 u}{\partial t^2} = c^2 \frac{\partial^2 u}{\partial x^2}$  is shown. On the right side, the differential equation  $\frac{df}{dt} = \lim_{h \rightarrow 0} \frac{f(t+h) - f(t)}{h}$  is partially visible. Other markings include  $F - E + V = 2$  on the left and  $dS \geq 0$  on the right. There are also some geometric sketches and other faint equations scattered across the board.

# Focus Academies & Career Technical Education (CTE)

May 17, 2022

Morgan Hill Unified School District

# ***MHUSD Coherence and Alignment***



Direct impact to MHUSD Classrooms & Departments and Each & Every Student



Elementary School



Middle School



High School



College/  
Career





# *Focus Academies*

*TK-5*





# ***El Toro Health Science Academy***

Established 2017

- Health Science labs weekly!
- Collaboration across grade levels!
- Fitness activities!
- PBL units w/ TWIG
- After school opportunities!
- Art integration

State winning 25lbs Cabbage!



Exploring to find the Gingerbread man,  
Run, run, run as fast as you can!



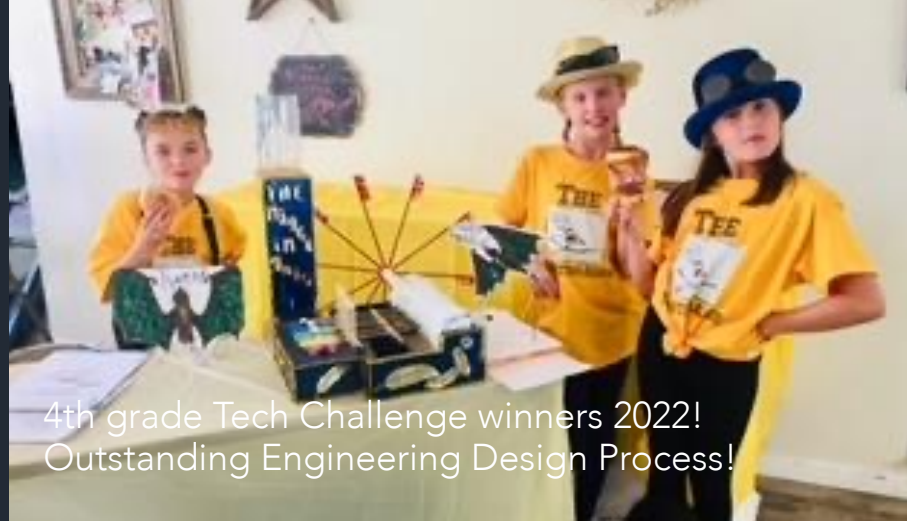
DrumFit in the lab!



Creating Zen gardens!



# Paradise Valley Engineering Academy



4th grade Tech Challenge winners 2022!  
Outstanding Engineering Design Process!



3rd: Marble mazes



Kinder project solving  
how to catch a  
gingerbread man and  
build a strong structure

- Design Thinking
- Lower Grades intertwine engineering design into Math and ELA
- 3rd starts to introduce coding and building items that solve problems
- 4th and 5th work on larger projects over time that allow for more adjustments



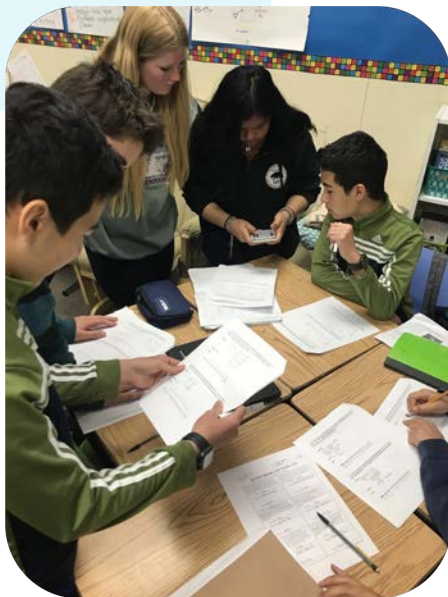
Beginning stage of  
finding how things work  
together



# Jackson Academy of Math & Music (JAMM)

## Mathematics

- ❑ Workshop Model
- ❑ Student collaboration on complex tasks
- ❑ Develop a true number sense of mathematics
- ❑ Growth Mindset- "All students can feel and be successful in mathematics"



## Music

- ❑ All students K-8 in music
- ❑ Choral
- ❑ Instrumental Band with a variety of instruments
- ❑ Music Theory & Appreciation
- ❑ Multiple Performances







# *San Martin Gwinn*

## *Environmental Science Academy*

*Established: 2014*

- Garden/Farm lessons K-8 during the school day
- After school garden/farm club and community weekend events
- Art and SEL integration





# ***SMG Vision for the Future***

## ***Dual Language Academy:***

Home of the DIME Program

- Benefits of a 90/10 program:
  - Students' self-efficacy in Spanish is higher
  - Higher levels of reading proficiency in Spanish
- Full DIME participation
- On track to have three kinder classrooms
- Dual Language TK classroom beginning in 22-23 school year





# PA Walsh STEAM Academy

*STEAM is an educational approach to learning that uses Science, Technology, Engineering, the Arts and Mathematics as access points for guiding student inquiry, dialogue, and critical thinking.*

## 2014-2018: Where did we start?

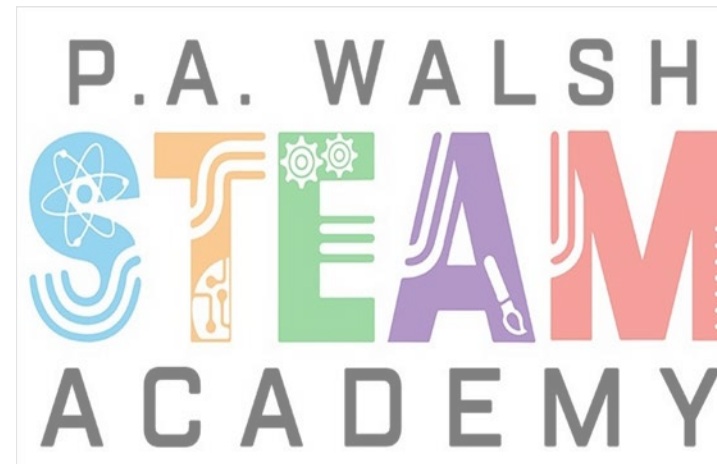
- ❖ Technology
- ❖ Partnership with Disney Animation
- ❖ Full Time TOSA

## 2019-2022: Where are we now?

- ❖ Intention Planning Time for Unit planning with STEAM
- ❖ Part-time TOSA

## 2022: What are our next steps?

- ❖ Full time TOSA
  - Goals and outcomes
- ❖ Dual Language Integration
  - Plans and projections



Year of Implementation: 2014-2015

A perspective view of a clean, modern school hallway. On both sides are rows of bright orange lockers with silver handles. The floor is made of large, light-colored square tiles that reflect the overhead lights. The ceiling is a white grid with recessed rectangular light fixtures. On the left wall, there is a round analog clock. In the distance, a white sign with the word 'INFORMATION' is visible above a counter. The text 'An Idea for a K-12 Pathway!' is superimposed in the center of the image in a large, bold, black, italicized font.

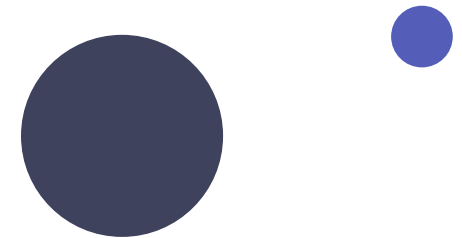
***An Idea for a  
K-12 Pathway!***



- Internationally recognized programme with over 5000 IB World Schools worldwide
  - IB Mission Statement:
    - “The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect.
    - To this end the organization works with schools, governments and international organizations to develop challenging programmes of international education and rigorous assessment.
    - These programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right.”
- 



# ***The International Baccalaureate (IB) Programme***



# IB Learner Profile: Inquirers, Knowledgeable, Thinkers, Communicators, Principled, Open Minded, Caring, Risk Takers, Balanced, Reflective



## IB learner profile

The aim of all IB programmes is to develop internationally minded people who, recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world.

As IB learners we strive to be:

<b>INQUIRERS</b> We nurture our curiosity, developing skills for inquiry and research. We know how to learn independently and with others. We learn with enthusiasm and sustain our love of learning throughout life.	<b>OPEN-MINDED</b> We critically appreciate our own cultures and personal histories, as well as the values and traditions of others. We seek and evaluate a range of points of view, and we are willing to grow from the experience.
<b>KNOWLEDGEABLE</b> We develop and use conceptual understanding, exploring knowledge across a range of disciplines. We engage with issues and ideas that have local and global significance.	<b>CARING</b> We show empathy, compassion and respect. We have a commitment to service, and we act to make a positive difference in the lives of others and in the world around us.
<b>THINKERS</b> We use critical and creative thinking skills to analyse and take responsible action on complex problems. We exercise initiative in making reasoned, ethical decisions.	<b>RISK-TAKERS</b> We approach uncertainty with forethought and determination; we work independently and cooperatively to explore new ideas and innovative strategies. We are resourceful and resilient in the face of challenges and change.
<b>COMMUNICATORS</b> We express ourselves confidently and creatively in more than one language and in many ways. We collaborate effectively, listening carefully to the perspectives of other individuals and groups.	<b>BALANCED</b> We understand the importance of balancing different aspects of our lives—intellectual, physical, and emotional—to achieve well-being for ourselves and others. We recognize our interdependence with other people and with the world in which we live.
<b>PRINCIPLED</b> We act with integrity and honesty, with a strong sense of fairness and justice, and with respect for the dignity and rights of people everywhere. We take responsibility for our actions and their consequences.	<b>REFLECTIVE</b> We thoughtfully consider the world and our own ideas and experience. We work to understand our strengths and weaknesses in order to support our learning and personal development.

The IB learner profile represents 10 attributes valued by IB World Schools. We believe these attributes, and others like them, can help individuals and groups become responsible members of local, national and global communities.

 International Baccalaureate®  
Baccalaureat International®  
Bachillerato Internacional®

© International Baccalaureate Organization 2013  
International Baccalaureate® | Baccalaureat International® | Bachillerato Internacional®



A blue ribbon graphic with a 3D effect, featuring a dark blue shadow on the left side. The ribbon is horizontal and contains white text.

# *Video: What is an IB Education?*

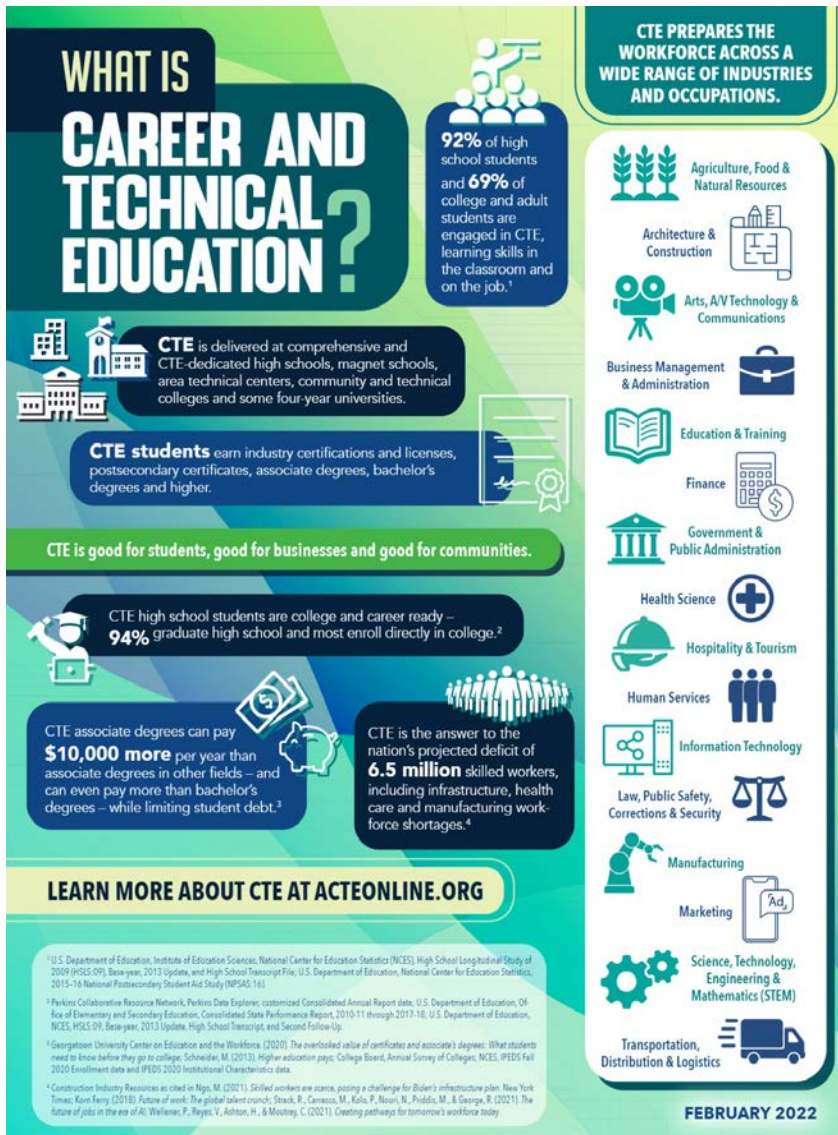
# The IB Continuum

Primary Years Programme (PYP)	Middle Years Programme (MYP)	Diploma Programme (DP)	Career-Related Programme
The PYP marks the start of a lifelong journey. It develops caring and culturally aware children aged 3 – 12 to become active participants in their own learning.	Building a solid academic foundation, the MYP develops students' confidence in managing their own learning and making connections between their learning in the classroom and the real world.	A future-ready program that builds students' inquiring mindset, fosters their desire to learn, and prepares them to excel at their careers and lead meaningful lives.	A unique program for students in their final school years. It equips them with future-ready skills and prepares them to follow their career pathways—combining academic subjects with their own professional interests.



# *Career Technical Education (CTE)*





# Career and Technical Education (CTE)

“CTE is for all students, and covers 15 industry sectors, covering 58 career pathways. The work is integrated with academics in a rigorous and relevant curriculum... students develop career-relevant, real-world 21st Century skills.”

- CTE General Public Fact Sheet - General Information (CA Dept of Education)

## MHUSD CTE Pathways 21-22

AGRICULTURE & NATURAL RESOURCES		
Agricultural Business - Live Oak & Sobrato		
Introductory	Concentrator	Capstone
N/A	Art & History of Floral Design	Ag Sales & Service
AGRICULTURE & NATURAL RESOURCES		
Agricultural Mechanics - Sobrato		
Introductory	Concentrator	Capstone
N/A	Agricultural Mechanics	Agricultural Welding
AGRICULTURE & NATURAL RESOURCES		
Agriscience - Live Oak & Sobrato		
Introductory	Concentrator	Capstone
Ag Biology	Soil Chemistry	Vet Science
AGRICULTURE & NATURAL RESOURCES		
Plant & Soil Science - Live Oak & Sobrato		
Introductory	Concentrator	Capstone
Ag Biology	Soil Chemistry	Horticulture
ARTS, MEDIA, & ENTERTAINMENT		
Design, Visual, & Media Arts - Live Oak		
Introductory	Concentrator	Capstone
N/A	Intro to Graphic Design	Intro to Journalism and Tech Writing
ARTS, MEDIA, & ENTERTAINMENT		
Design, Visual, & Media Arts - Sobrato		
Introductory	Concentrator	Capstone
N/A	Studio Art	Advanced Studio Art
N/A	Ceramics	Advanced Ceramics
N/A	Advanced Photography	Graphic Design
ARTS, MEDIA, & ENTERTAINMENT		
Performing Arts - Sobrato		
Introductory	Concentrator	Capstone
N/A	Drama	Advanced Drama

ARTS, MEDIA, & ENTERTAINMENT		
Production & Managerial Arts - Live Oak		
Introductory	Concentrator	Capstone
N/A	Advanced Multimedia	Audio Video Production
ARTS, MEDIA, & ENTERTAINMENT		
Production & Managerial Arts - Sobrato		
Introductory	Concentrator	Capstone
N/A	Stagecraft 1	Stagecraft 2
BUILDING & CONSTRUCTION TRADES		
Cabinetry, Millwork, & Woodworking - LO		
Introductory	Concentrator	Capstone
N/A	Woodworking	Woodworking 2
BUILDING & CONSTRUCTION TRADES		
Residential & Commercial Construction - LO		
Introductory	Concentrator	Capstone
N/A	Construction Technology	Construction Technology 2
HEALTH SCIENCE & MEDICAL TECH		
Patient Care - Sobrato		
Introductory	Concentrator	Capstone
N/A	Sports Medicine	Exercise Science
HOSPITALITY, TOURISM, & RECREATION		
Food Service & Hospitality - Live Oak		
Introductory	Concentrator	Capstone
N/A	Advanced Foods	Culinary
INFORMATION & COMMUNICATION TECH		
Software & Systems Development - Sobrato		
Introductory	Concentrator	Capstone
N/A	AP Computer Science P	AP Computer Science A

For more information about MHUSD's Career Technical Education Classes:  
<https://bit.ly/mhusdCTE>

# CTE in MHUSD

- Six Industry Sectors:
  - Agriculture & Natural Resources
  - Arts, Media, & Entertainment
  - Building & Construction Trades
  - Health Science & Medical Technology
  - Hospitality, Tourism, & Recreation
  - Information & Communication Technology
- 16 Pathways within these Sectors
- Total Enrollment: 1902\*

\*This number reflects the total enrollment in each CTE course. There may be duplicates if students are enrolled in more than one course.



# Agriculture & Natural Resources

Current Enrollment: 526 students

## Agricultural Business

- Live Oak and Sobrato: Ag Bio, Soil Chem, and Ag Sales and Service or Art and History of Floral Design

## Agricultural Mechanics

- Sobrato: Ag Mechanics and Welding

## Animal Science

- Live Oak and Sobrato: Ag Bio, Soil Chem, and Vet Science

## Plant and Soil Science

- Live Oak and Sobrato: Ag Bio, Soil Chem, and Horticulture





MORGAN HILL  
FFA CHAPTER  
PRESENTS



# WHY SHOULD YOU BE IN AG EDUCATION?

Competitions Include:  
Public Speaking, Career  
Development Events (CDE),  
and much more!

Become a Leader!

Earn Scholarships!



You get to be in FFA and  
get the opportunity to  
compete in various  
competitions, attend  
Leadership Conferences,  
and more!

Raise an Animal!

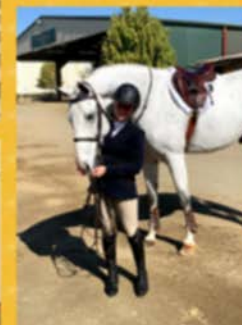
Get ready for a Career!

Learning to do, Doing to Learn,  
Earning to live, Living to Serve

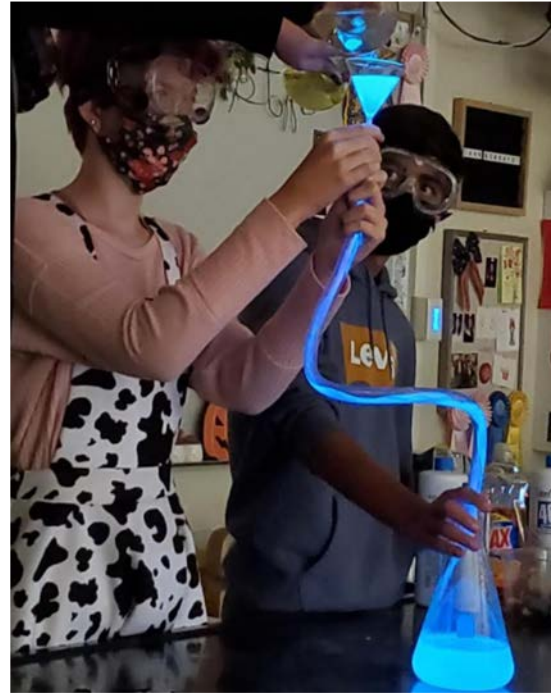
## What is FFA?



FFA is an  
intracurricular  
student organization  
for those interested in  
agriculture and  
leadership. It is one of  
the three components  
of agricultural  
education.









# Arts, Media, & Entertainment

**Current Enrollment: 811 Students**

Performing Arts

- Sobrato: Drama and Advanced Drama

Production and Managerial Arts

- Live Oak: Advanced Multimedia and Audio Video Production
- Sobrato: Introduction to Stagecraft and Stagecraft 2

Design, Visual and Media Arts

- Live Oak: Intro to Graphic Design and Intro to Journalism and Tech Writing
- Sobrato: Ceramics and Advanced Ceramics,
- Studio Art and Advanced Studio Art, Advanced Photography and Graphic Design







# Building & Construction Trades

Current Enrollment: 139 students

Cabinetry, Millwork & Woodworking

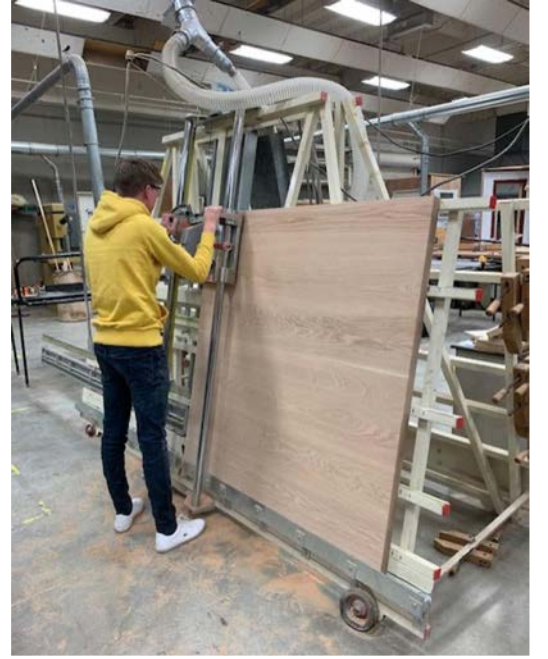
- Live Oak: Woodworking 1 and Woodworking 2

Residential and Commercial Construction

- Live Oak: Construction Technology and Construction Technology 2









# Health Science & Medical Technology

Current Enrollment: 122 students

Patient Care

- Sobrato: Sports Medicine and Exercise Science





## SPORTS MEDICINE

**ALL ARE  
WELCOME**

**WHAT**  
**Career Technical Ed**


This program is designed to provide students with an overview in the field of Sports Medicine. The course is specifically geared for students who have a special interest in athletics, and/or who may be interested in pursuing a career in medicine, athletic training, physical therapy, EMT, or other health related fields. A comprehensive range of topics are explored including basic anatomy and physiology, emergency procedures, prevention and care of athletic injuries, protective taping and wrapping techniques, and therapeutic methods of injury care and rehabilitation. All students have the opportunity to become certified in American Red Cross First aid/CPR/AED use.

**ARE YOU  
INTERESTED IN:**  
Sports Medicine  
Exercise Principles  
Nutrition  
Injury Prevention  
Providing care to athletes  
Volunteering at athletic events

**FOR MORE INFO:**  
Dr. Christine Taylor  
taylorc@mbusd.org

**When**  
**Elective option for  
grades 9 - 12**





## EXERCISE SCIENCE

**ALL ARE  
WELCOME**


**WHAT**  
**Career Technical Ed**

This course provides students with the opportunity to explore their interests in the field of health science and medicine, specifically focused towards careers in personal training, strength and conditioning, and sport coaching. This course is designed to familiarize the student with the basics of personal training, specifically the demonstration and execution of exercise technique. Topics that will be explored include systematic strength training, plyometric (explosion) training, speed & agility training, physiology of exercise, and other training methods. This course is designed to prepare students to take the NSCA - Certified Personal Trainer Exam upon completion, at the age of 18.

**ARE YOU  
INTERESTED IN:**  
Athletics  
Exercise Principles  
Nutrition  
Strength Training  
Sport Coaching  
Injury Prevention  
Training athletes

**FOR MORE INFO:**  
Dr. Christine Taylor  
taylorc@mbusd.org

**When**  
**Elective option for  
grades 11 - 12**





# Hospitality, Tourism, & Recreation

Current Enrollment: 169 students

Food Service and Hospitality

- Live Oak: Advanced Foods and Culinary



# Information & Communication Technology

Current Enrollment: 135 students

Software and Systems Development

- Sobrato: Computer Science and AP Computer Science





# Manufacturing Day



Partnership between

Morgan Hill Chamber of Commerce

City of Morgan Hill

Morgan Hill Unified School District



Showcases manufacturing careers throughout Morgan Hill



Students attend one or more company tours throughout MH to see manufacturing across several industries



***Next Steps: Looking Ahead***



# *CTE in our Middle Schools*

Bring CTE to our middle schools

Potential opportunities include

- Offer intro pathway courses in middle school vs CTE courses on a wheel
- Purposefully connect our existing high school pathways with new middle school options
- Focus on high demand industry sectors as we build connections

# Central High School

Currently offer 1 CTE course (no pathway)

Exploring the possibilities:

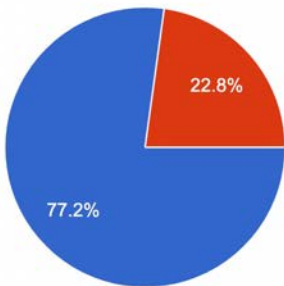
- Building an arts (hands-on) CTE pathway at Central
- Opportunities for students to take CTE courses at Sobrato
- CTE Dual/Concurrent Enrollment options (Gavilán College)
- Establish robust connection with Silicon Valley CTE (SVCTE)

Surveyed Central HS Students

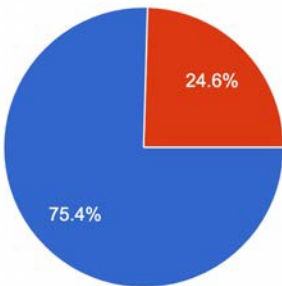


# Central High School: A Sampling of Survey Results

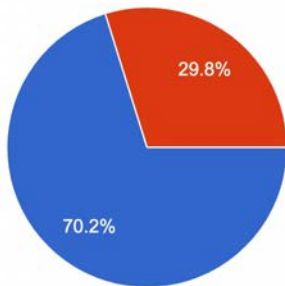
BUS 1: Fundamentals of Business  
57 responses



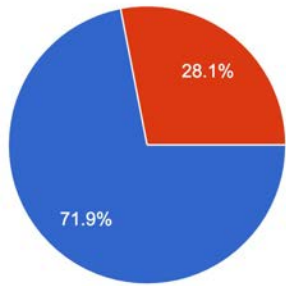
Art 8A - Intro to Photography  
57 responses



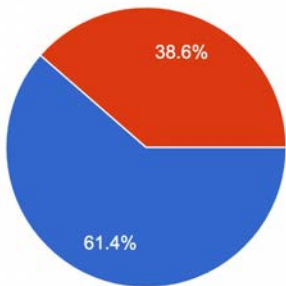
Art 7A - Beginning Ceramics  
57 responses



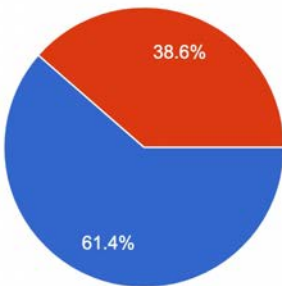
GUID 6 - Life Skills Higher Education  
57 responses



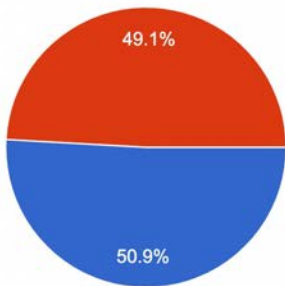
CD 40 - Child Development  
57 responses



AJ 10 - Intro to Administration of Justice  
57 responses



HVAC 201 - Basic Electrical Theory  
57 responses



Yes

No



# Supporting & Strengthening our CTE Pathways

---

- Purposeful and meaningful professional development
  - Externships for CTE teachers
- Vertical and horizontal Pathway alignment across the district
- Articulated college courses in every CTE pathway
- CTE Dual/Concurrent Enrollment options via Gavilán College



# Supporting & Strengthening our CTE Pathways



CONNECTIONS TO HIGH PRIORITY  
INDUSTRY SECTIONS



ESTABLISH INTERNSHIP  
OPPORTUNITIES FOR CTE  
STUDENTS



ESTABLISH WORK BASED LEARNING  
OPPORTUNITIES FOR CTE  
STUDENTS



*Thank you!  
Questions?*