AWSA
Because Leadership Matters

Re-Imagine the Future with STEM, PBL and Service Learning
"The Trifecta of Success"

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the Institute for Personalized Learning
a division of CESA #1

Waukesha S.T.E.M. Academy
Engage. Think. Collaborate. Innovate. Create.

"When I was 5 years old, my mother always told me that happiness was the key to life. When I went to school, they asked me what I wanted to be when I grew up. I wrote down 'happy'. They told me I didn't understand the assignment, and I told them they didn't understand life."

- John Lennon

The Waukesha STEM Academy
Mission & Vision
Driven by Personalized Learning.

- **Competency-Based Pathways**
  - Entering and Leaving STEM at Different Places
  - Moving at Different Paces
- **Making Thinking Visible**
  - Application of Learning
  - Teaching of Learning
  - Articulation of Learning
- **What It Means to be a STEM School**
  - Real-Life Context
  - Hands-On Learning
  - Personalized Learning Pathways

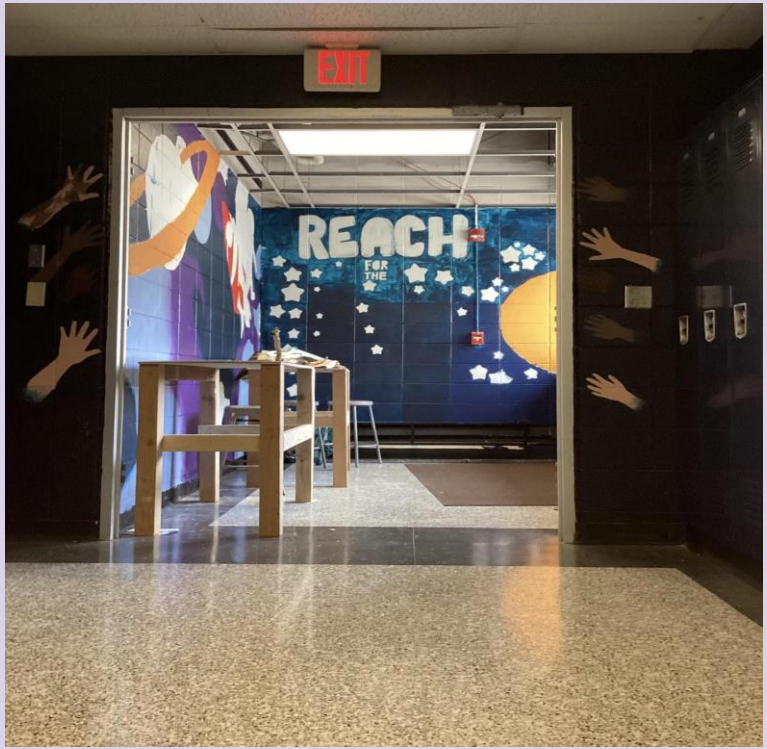
Driven by Personalized Learning Pathways

- **What If...**
  - Entering and Leaving STEM at Different Places
  - Moving at Different Paces
- **How do I...**
  - Application of Learning
- **What are the Possibilities**
  - Real-Life Context

Waukesha T.E.M. Academy

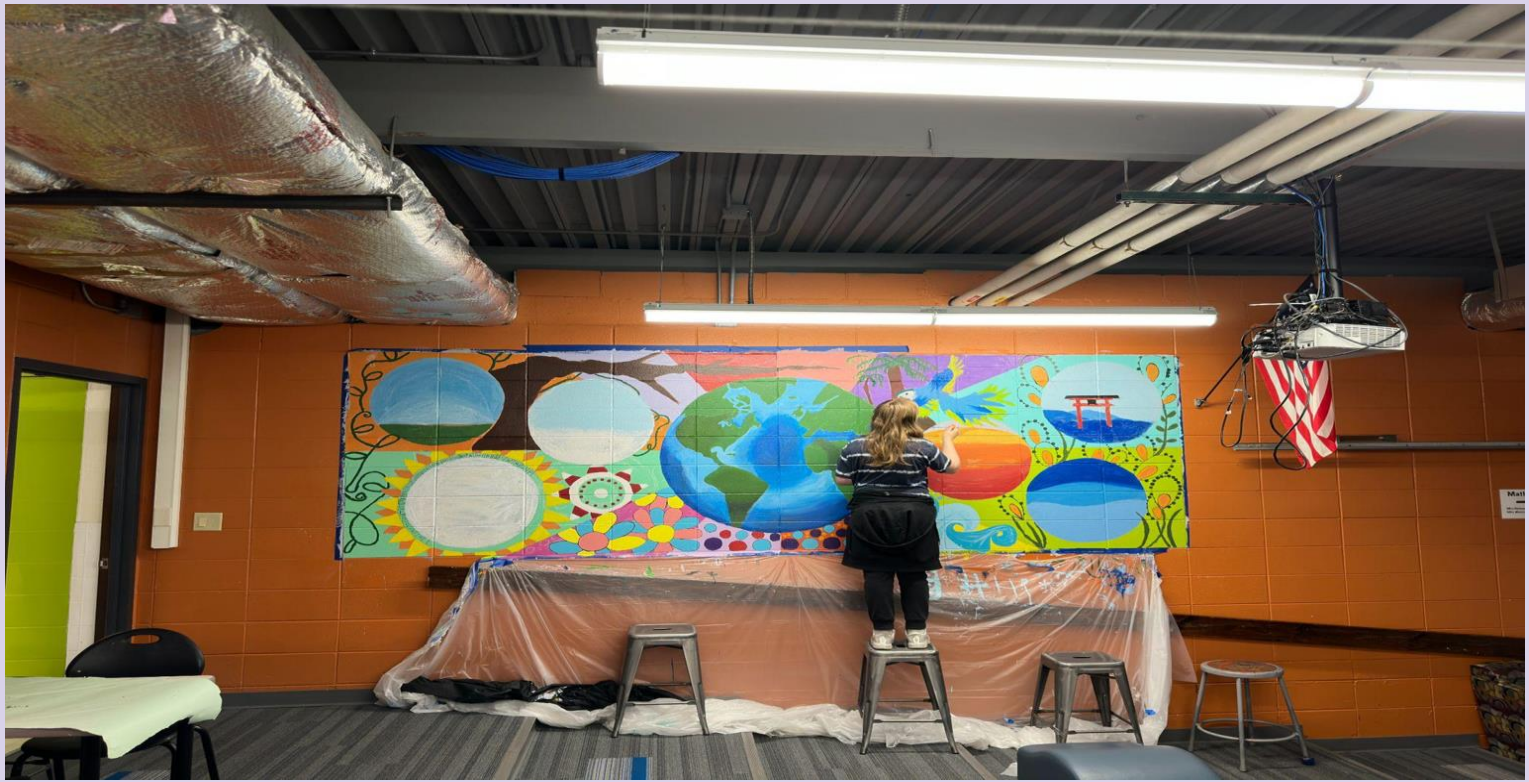
Click for Live Document

The Waukesha STEM Academy
“Fail Forward” at All Costs



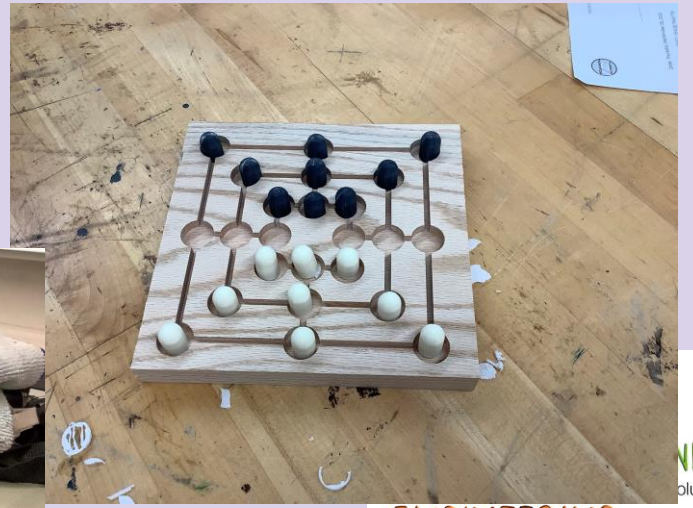
Engage. Think. Collaborate. Innovate. Create.
Waukesha S.T.E.M. Academy

The Waukesha STEM Academy
“Fail Forward” at All Costs

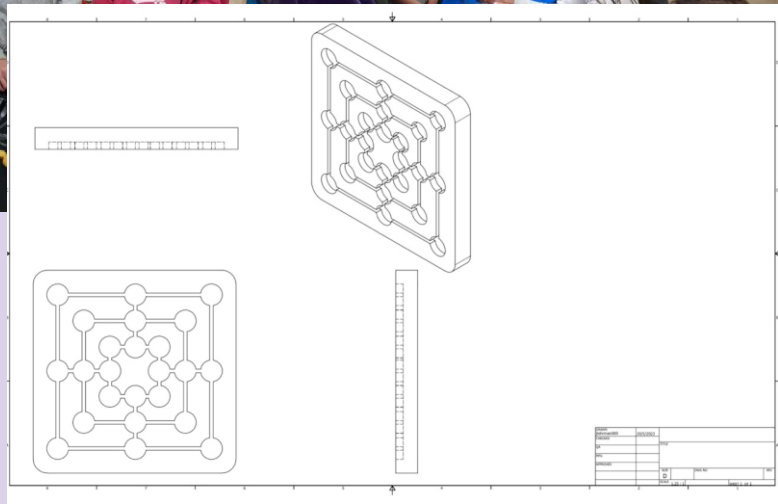


The Waukesha STEM Academy
Iterate, Iterate, Iterate

Students ask, “Can I try…”
The answer is almost always yes, let’s find out.



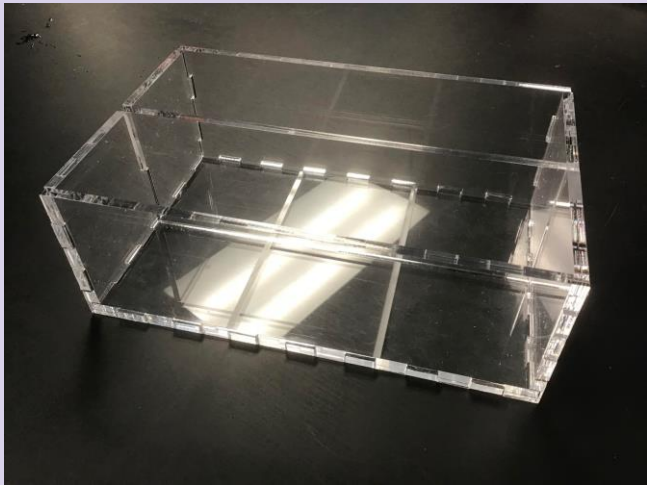
Job-Ready Skill-Sets



Waukesha STEM Academy

Necessity... the mother of invention.

Inspiration



Waukesha T.E.M. Academy

Choose your own adventure: things to consider

- Understand that this will be a more student led discovery of coding and physical computing.
- Mr. B’s job will be to check in, assist, and guide you on your adventure
- Find projects that will be fun, and involved (try to find ones that may take more than one class to complete)
- Based on your project, let me know what additional materials you need beyond the micro:bit or edison robot to make your project complete
- The projects you complete should align to the continuums

Project Ideas

makecode.microbit.org if you scroll down, there are a ton of projects to work on. Or you could design your own!

Edison robots: meetedison.com has a bunch of project ideas as well to pick from. It will be your responsibility to decide what you want to do and go for it!

Waukesha T.E.M. Academy

The Waukesha STEM Academy

Building Partnerships to Support your Students Time, Talent & Treasure

- **Time…**
  - Getting mentors in to support student learning
- **Talent…**
  - Mentors to support staff learning
  - Providing expertise in a given field
- **Treasure**
  - Financial Grants
  - Donation(s) of Physical Items

From Consumption to Production

How do our Students “Go Public”

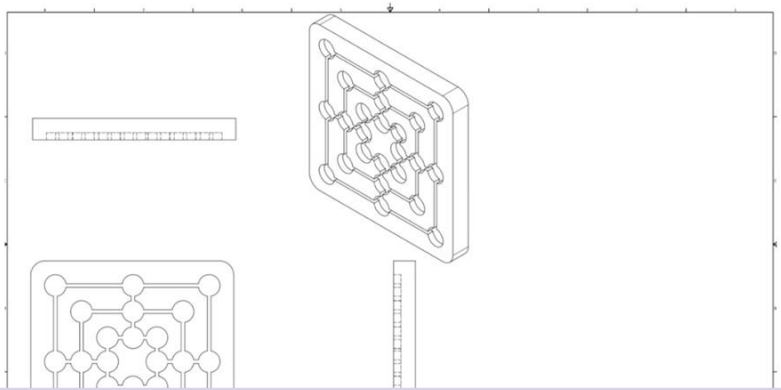
Waukesha T.E.M. Academy

From Consumption to Production

How do our Students “Go Public?”

Check it Out

Link to my continuum:



Here is what I am doing in 3D modeling

I am making a 3D model of a board game called nine men's morris so that I can CNC it and then hopefully play it

Waukesha T.E.M. Academy

The Waukesha STEM Academy
"212" on 3...
STEaM at it's Finest and the Framework that makes it tick.

Check it Out

PROJECT TITLE HERE

This document has been created as a way to frame the thinking regarding the STEaM project you're about to run! The STEaM team has met to create a consistent framework to ensure that all STEaM projects operate with common norms. As we get ready for the upcoming school year we have created a few projects to ensure that there are projects ready to launch in the fall. Over the summer months if you are interested in creating a new, or modifying a previous, project we would ask that you utilize this table as you go through the process.

General description of project	
Collaboration occurring	
Community connections	
How is the Engineering Design Process woven into this project	
Description of student presentation that will be shared	
Describe method of student reflection	

- Frequency
- Modality

Check it Out

STEaM Project Template

Name of Project: _____

Duration: _____

Team: _____

NARRATIVE RATIONALE

Project Ideas	
What's your rationale? WHY is this a good project? Enduring Understanding: (What do you want to walk away with?)	
Driving Questions: (What are 2-3 questions you want to dig deeper into and learn about your project?	
HOW will you learn more? HOW will you present your findings/learning to others?	

Check it Out

STEaM Project Template

Name of Project: _____

Duration: _____

Educator Team: _____

8 Essentials of BIE

Project Idea: Summary of the issue, challenge, investigation, scenario, or problem:	
Enduring Understanding/ Learning Goals: (What do you want students to walk away with?)	
Driving Question:	

Cross-Content Integration

(Math, Literacy, Science, Social Studies, STEM Inc., Electives)

Content Area	Standards-Based Outcomes

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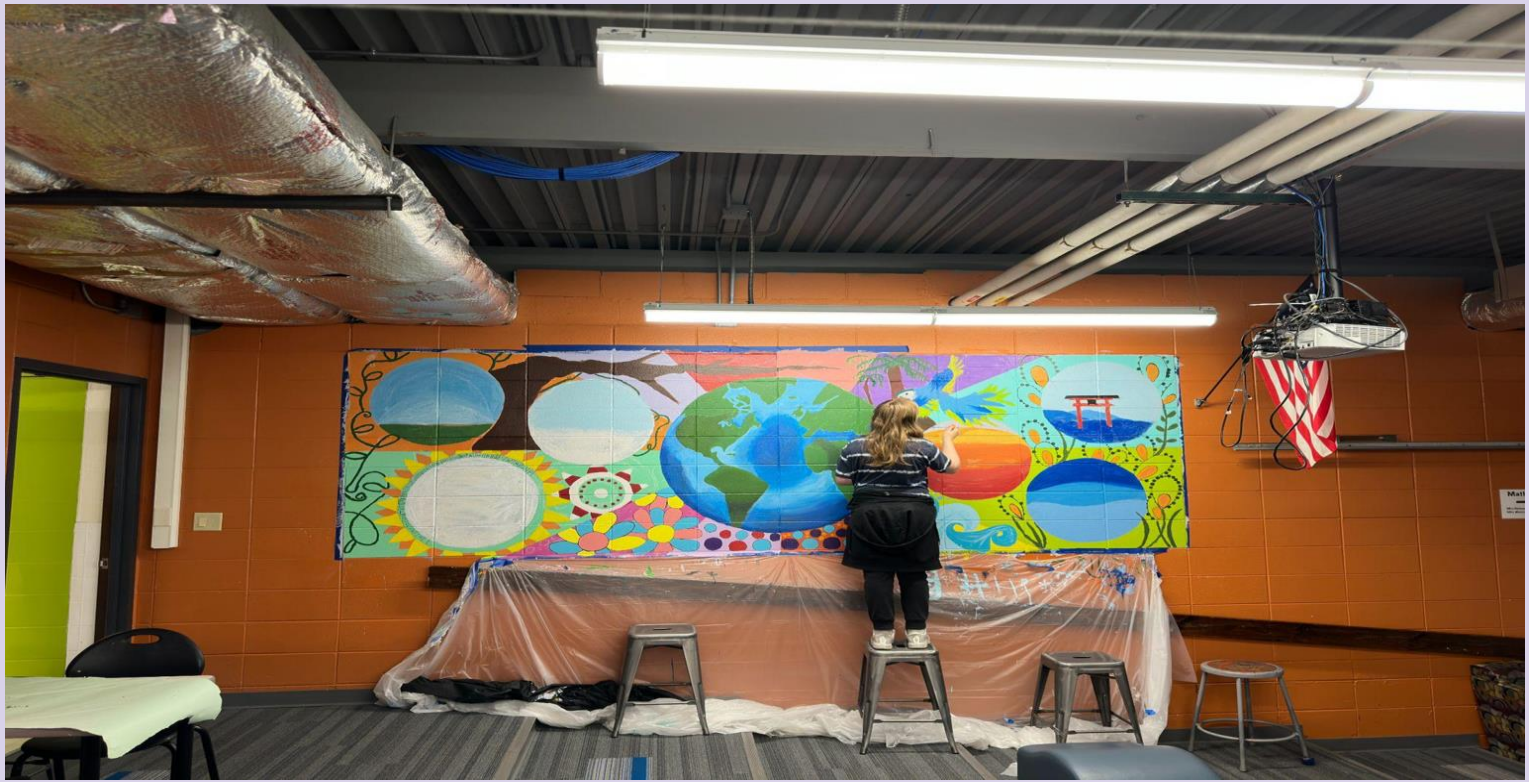
Mission & Vision

Driven by Personalized Learning



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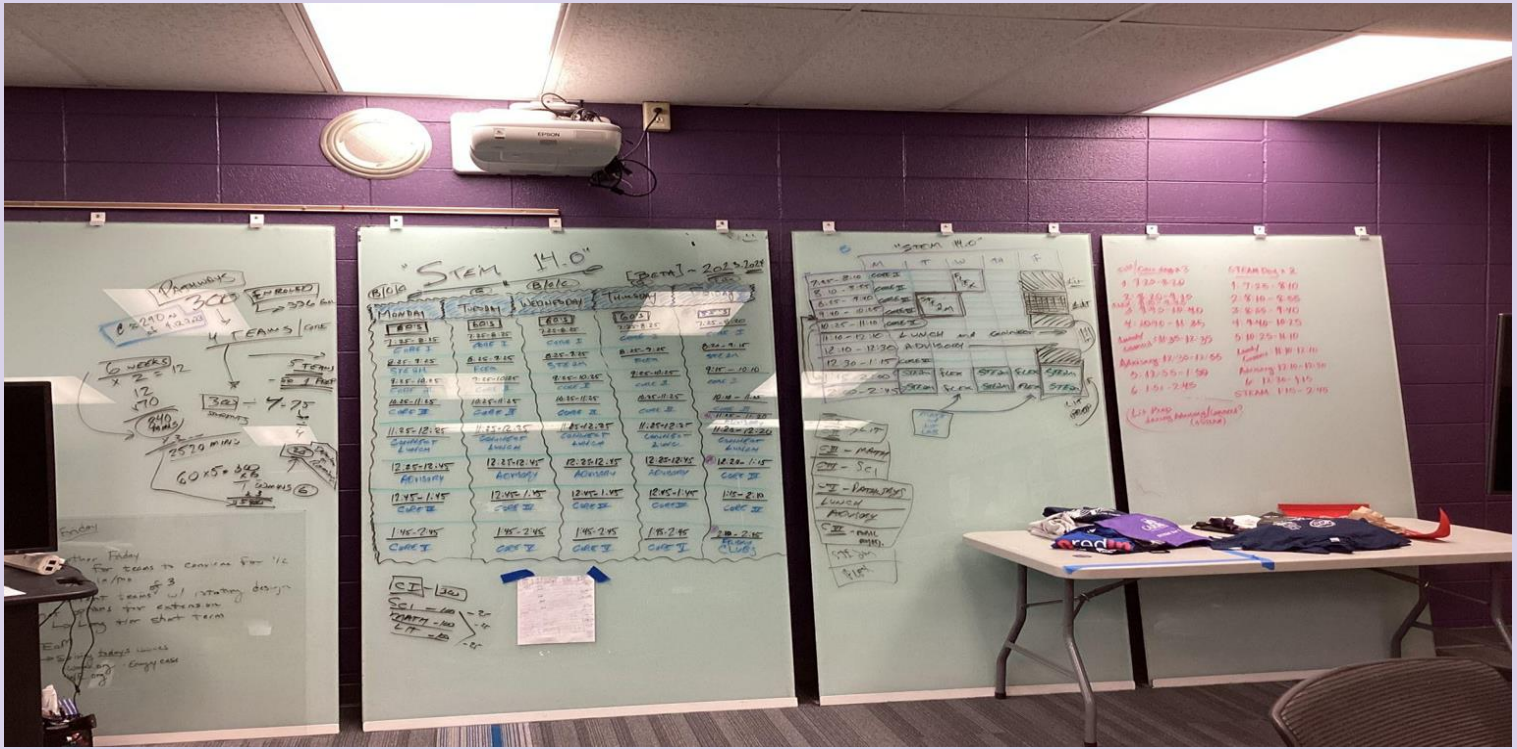

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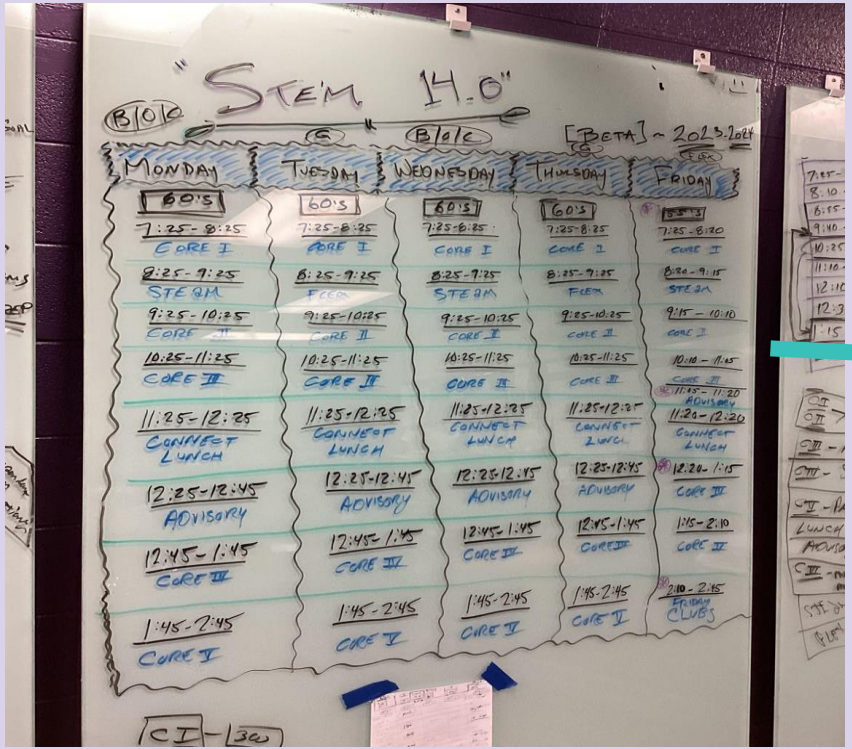
"The Framework"



Check it Out

STEM 13.0
CREATING LEADERS, EVERY... SINGLE... DAY!
CHECK OUT OUR TWITTER: @STEM_Saratoga

Monday A Day Electives (Pathways or Phy.Ed./Music)	Tuesday B Day Electives (Pathways or Phy.Ed./Music)	Wednesday A Day Electives (Pathways or Phy.Ed./Music)	Thursday B Day Electives (Pathways or Phy.Ed./Music)	Friday FLEXible Pathways (Pathways or Phy.Ed./Music) STEM - CLUBS
Transition to Learning Spaces from Safe Arrival into STEM Campus (7:15 - 7:25)	Transition to Learning Spaces from Safe Arrival into STEM Campus (7:15 - 7:25)	Transition to Learning Spaces from Safe Arrival into STEM Campus (7:15 - 7:25)	Transition to Learning Spaces from Safe Arrival into STEM Campus (7:15 - 7:25)	Transition to Learning Spaces from Safe Arrival into STEM Campus (7:15 - 7:25)
CORE I (7:25 - 8:40)	CORE I (7:25 - 8:35)	CORE I (7:25 - 8:40)	CORE I (7:25 - 8:40)	CORE I (7:25 - 8:30)
STEaM (8:40 - 9:40) * CapStone Projects that are chosen by students, that heavily focus on collaboration, innovation, ideation, creation and the evolution of our real-world experiences.	FLEX (8:35 - 9:35) * Students should use this time to work on the classes where they need more time. Please reach out to your teacher(s) or your advisor if you need some guidance.	STEaM (8:40 - 9:40) * CapStone Projects that are chosen by students, that heavily focus on collaboration, innovation, ideation, creation and the evolution of our real-world experiences.	FLEX (8:40 - 9:40) * Students should use this time to work on the classes where they need more time. Please reach out to your teacher(s) or your advisor if you need some guidance.	STEaM (8:30 - 9:30) * CapStone Projects that are chosen by students, that heavily focus on collaboration, innovation, ideation, creation and the evolution of our real-world experiences.
CORE II (9:40 - 10:55)	CORE II (9:35 - 10:45)	CORE II (9:40 - 10:55)	CORE II (9:40 - 10:55)	CORE II (9:30 - 10:35)
ADVISORY (10:55 - 11:15)	ADVISORY (10:45 - 11:05) Deep-Dive Reading	ADVISORY (10:55 - 11:15) ACP & SEL	ADVISORY (10:55 - 11:15) Deep-Dive Reading	ADVISORY (10:35 - 10:55)
CONNECT-LUNCH (11:15 - 12:15) Students choose a 30 minute block to each lunch and the opposite 30 minutes to attend a CONNECT session	CONNECT-LUNCH (11:05 - 12:05) Students choose a 30 minute block to each lunch and the opposite 30 minutes to attend a CONNECT session	CONNECT-LUNCH (11:15 - 12:15) Students choose a 30 minute block to each lunch and the opposite 30 minutes to attend a CONNECT session	CONNECT-LUNCH (11:15 - 12:15) Students choose a 30 minute block to each lunch and the opposite 30 minutes to attend a CONNECT session	CONNECT-LUNCH (10:55 - 11:55) Students choose a 30 minute block to each lunch and the opposite 30 minutes to attend a CONNECT session
CORE III (12:15 - 1:30)	CORE III (12:05 - 1:15)	CORE III (12:15 - 1:30)	CORE III (12:15 - 1:30)	CORE III (11:55 - 1:00)
CORE IV (1:30 - 2:45)	CORE IV (1:15 - 2:25) PI DAY EVENT (2:25 - 2:45)	CORE IV (1:30 - 2:45)	CORE IV (1:30 - 2:45)	CORE IV (1:00 - 2:05) CLUBS (new Club rotations) (2:05 - 2:45)

STEM 14.0 in “Beta”