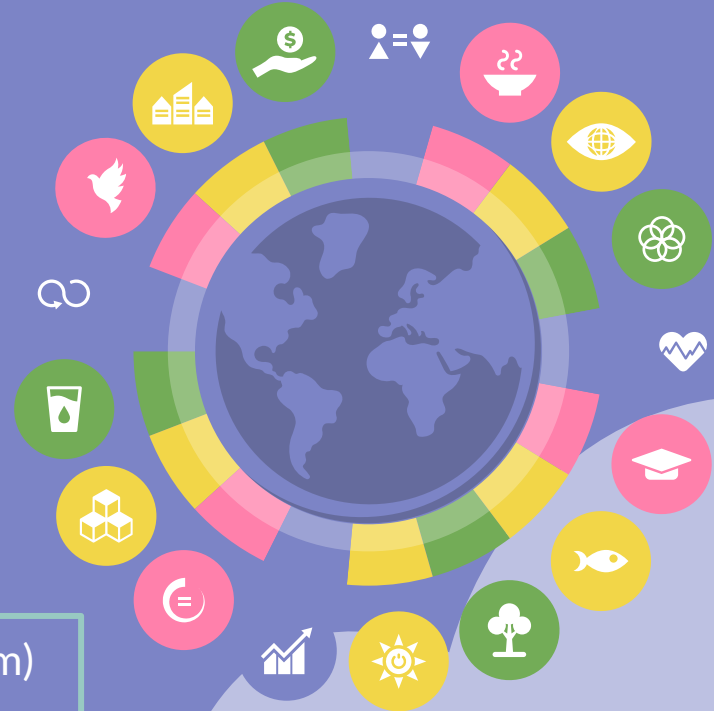


# Full STEAM Ahead: Designing Cross-Curricular Projects for a New Age



Monday, March 4/Session 1 (10:15 am – 11:30 am)  
SCUCC – Ballroom A 10



# Welcome

[Click here for Digital Note Template](#)



## MEGAN MOORE

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## LEARNING INTENTION (S):

1. **Utilize** critical thinking to make sense of problems and persevere in solving them.
2. **Work** productively in teams while integrating cultural and global competence.
3. **Create** future learning opportunities for students when engaging in cross-curricular activities.

## SUCCESS CRITERIA:

- (1) Participants **can identify** key terms used in cross- curricular lesson planning.
- (2) Participants **can map out** standards and objectives for cross-curricular planning.
- (3) Participants **can** identify key players and **plan out** effective activities and assessments for cross-curricular lessons.
- (4) Participants **can implement** and **evaluate** a mini lesson for a cross curricular activity.

# The Purpose of This Workshop:

We are in an age where isolated teaching and learning formats are ineffective and outdated. Our student now think in color, movement and constant change. How we address those needs will impact the ways in which we deliver learning today...

Johnson (2014-updated) states that “unless teachers stop departmentalizing their teaching and start teaching knowledge in context of other knowledge, student learning will continue to be stuck”.

Our goal today, is to provide you with fun and inventive ways to engage students in deeper thought and more cohesive knowledge, that challenges them, inspires their creativity and helps drive a purposeful and relevant desire for innovation in a new age.

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## Definition & Importance

Discussions on what cross curricular projects are.

02

## Methods & Topics

Strategies on how to build cross curricular activities.

03

## Our Progress & Challenges

Examples of our cross curricular projects and how we learned and grew from them.

04

## Review & Questions

Key strategies for implementing cross curricular projects and open discussion



01





# Cross Curricular Lessons

.....  
What's it all about?

# Defining the Art of Cross Curricular Practice



After watching the video:

 <b>See</b>	 <b>Think</b>	<b>Wonder</b> 
<i>I notice...</i>	<i>I think that...</i>	<i>I wonder...</i> 

# Building a Background

Heidi Hayes Jacobs defines cross-curricular teaching as “a conscious effort to apply knowledge, principles, and/or values to more than one academic discipline simultaneously.”

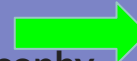
Dr. Heidi Hayes Jacobs is an internationally recognized author, speaker and consultant...

- Works with schools, organizations, and agencies to create responsive learning environments
- Helps to upgrade curriculum
- Supports teaching strategies to meet the needs of contemporary learners.

Education has often been taught in isolation--self contained classrooms that provide one perspective to a subject's thematic exploration.

What changed?

Cross-curricular planning is a philosophy in education that attempts to put an end to isolated instruction and learning.



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# Community Circles

**Community Circles:** Community circles are spaces for intentional communication to establish values, share experiences, and build relationships with people sharing a collaborative space.



## Common Circle Guidelines



# Community Circles-cont.

## Community Circles:

**Question 1:** Introduce yourself and answer...

- Is it better to be
  - a) kind
  - b) funny
  - c) fast
  - d) smart

### Explain:

- What?
- Why?



## Sentence Frame (s):

(Hi/Hello), my name is \_\_\_\_\_, I am

(a teacher/staff member/ counselor/ administrator/ district employee/organization leader) (at/with) \_\_\_\_\_. I feel that is is better to be \_\_\_\_\_,because\_\_\_\_\_.

# Community Circles-cont.

## Community Circles:

### Question 2:

- How do you process information?
  - a) visually
  - b) auditory
  - c) Kinesthetically
  - d) textile (hands-on)
  - e) verbally

#### Explain:

- What?
- Why?

This time, not everyone has to answer. You can choose to share or not. (Voluntary)



### Sentence Frame (s):

I process information \_\_\_\_\_, In this matter, I am able to \_\_\_\_\_, which allows me to \_\_\_\_\_.

# Community Circle Discussion



Job Responsibilities:

- Facilitator-kicks off the discussion topics
- Scribe- Records the answers of the group
- Speaker- will present on behalf of the group

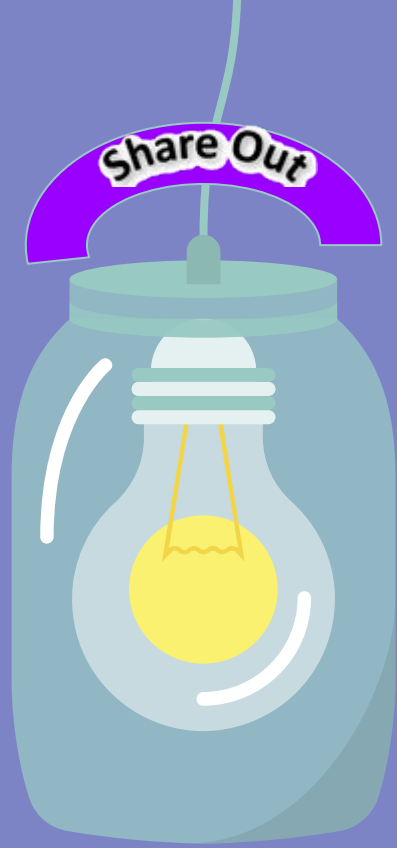
# Community Circle Discussion



Q1: With whom do you collaborate at your school?

Q2: How do you share your classroom experiences with others in the community who may become resource experts for your students?

Q3: How do you plan relevant cross-curricular lessons in your classrooms?



# Community Circle Discussion

Q1: With whom do you collaborate at your school?

Q2: How do you share your classroom experiences with others in the community who may become resource experts for your students?

Q3: How do you plan relevant cross-curricular lessons in your classrooms?

# Real Life Learning

## Why Cross Curricular Learning?

- ❑ Real life encourages development of new vocabulary and encourages talk, discussion and debate.
- ❑ Real life is truly multisensory learning, stimulating the brain with all the senses.
- ❑ Real life learning supports learning to be embedded in long term memory because it is contextualised and the learner can make sense of it in their own terms.



02

# Methods and Topics





There are four phases of Curriculum mapping

## Goal 1: Setting a base

1. **Laying the Foundation**
2. Launching the Program
3. Sustaining and Integrating Mapping into the System
4. Mapping Into the Future



# How to Lay the Foundation

In a moment, you will be asked to “Begin a discussion with your team to identify”...

1. everyone’s strengths
2. possible commonalities,  
&
3. Points of interest.


# Goal 1: Foundation (Example)

Quinlan (Biomedical Sciences)	Moore (Art/Graphic Design)
<ol style="list-style-type: none"><li>1. <b>Strength:</b> Organization, Consistency, and Flexible</li><li>2. <b>Possible Commonalities:</b><ol style="list-style-type: none"><li>a) Structure</li><li>b) Logistics</li><li>c) Collaboration</li></ol></li><li>3. <b>Points of Interest:</b><ol style="list-style-type: none"><li>a) Medical Innovation, Case Study: Problem-based Learning</li></ol></li></ol>	<ol style="list-style-type: none"><li>1. <b>Strengths:</b> Collaboration, Flexibility, Creativity, and Adaptability.</li><li>2. <b>Possible Commonalities:</b> Interior Design Project, Structure, logistics, collaboration</li><li>3. <b>Points of Interest:</b> Connecting classwork with external life and activities.</li></ol>

# Your Turn



**Instruction:** In your teams...

1. Discuss your **strengths, possible commonalities** with the others, and your **points of interest**.
2. Then, record your findings on **Slide 15**. You will use this information later.

<b>Strengths</b>	
<b>Possible Commonalities</b>	
<b>Points of Interests</b>	



# Goal 2: Setting in Motion

## Four Phases of Curriculum Mapping

1. Laying the Foundation
2. Launching the Program
3. Sustaining and Integrating Mapping into the System
4. Mapping Into the Future

# Goal 2: Setting in Motion

## In our previous example...

We scheduled several meetings prior to the project to decide what the collaboration would look like, and then established dates to create the projects.

### Quinlan (Biomedical Sciences)

#### 1. Integrated Several Lessons

- a) Brainstormed problems in Emergency Rooms
- b) Studied elements of Triage & Practiced
- c) Researched Hospital Logistics

2. **Students** were then **assigned** types and places of Emergency Rooms to **research**: Rural, Urban, Military base, Underdeveloped Village

### Moore (Art/Graphic Design)

1. Lesson: One Point Perspective Review
2. Lesson: Architecture Brief History
3. Lesson: Research the client's needs and client interview prep.

# Your Turn



**Instruction:** In your teams...

1. Discuss what type of activities that you do in your classrooms.
2. Then, find a common topic that may translate between your different curriculums
3. Record your possibles below, then share out. Scribe document discussion.

**Possible Activities:**

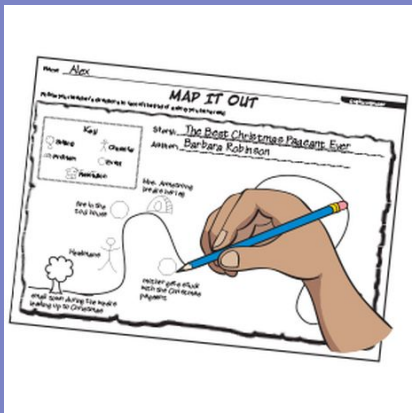
**Cross-Over Themes:**

**Outcome Focus:**

# Goal 3: Mapping

## Four Phases of Curriculum Mapping

1. Laying the Foundation
2. Launching the Program
3. Sustaining and Integrating Mapping into the System--Lesson Progression
4. Mapping Into the Future





# Goal 3: Mapping

- Proposal
- Admin Approval
- Master Schedule
- Student Training
- Implementation
- After Action

CROSS CURRICULAR LESSON PLANNING TEMPLATE	
THEMATIC TEACHING LINKING THE CORE SUBJECTS AIMING TOWARDS A POSITIVE BEHAVIOURAL CHANGE	
CLASS & DATE	PLTW-BI and Art (Per.1)
SUBJECTS	BioMedical Sciences and Art
KEY QUESTION	How can the innovative design of an emergency room help improve the quality and timeliness of medical care?
PREPARATION (RESOURCES YOU WILL NEED TO PREPARE THE LESSON)	<b>Resource Documents:</b> <ul style="list-style-type: none"><li>Project Management: Using Excel 2018 to Generate Gantt Charts</li><li>Project Management</li><li>Gantt Charts</li><li>Collaboration</li><li>Providing Peer Feedback</li><li>Building Effective Presentations</li><li>Delivering Effective Presentations</li></ul>
KEY OBJECTIVE & OUTCOME	<ul style="list-style-type: none"><li>Design an emergency room layout and be able to defend my design for efficiency for functions, testing, care and storage</li><li>Draw a three-dimensional model of one of the emergency rooms units to be a supportive artifact for my blueprint defense.</li></ul>
INTRODUCTION (INTRODUCE THE KEY OBJECTIVE TO THE STUDENTS - A MAXIMUM OF 3 KEY POINTS)	Design a more efficient emergency medical delivery system. <ul style="list-style-type: none"><li>Must work with a team</li><li>Must collaborate with outside designers</li><li>Must demonstrate innovative ideas that support the needs of patients in the 21st Century.</li></ul>
KEY VOCABULARY	<ul style="list-style-type: none"><li>Triage</li><li>Intuition</li><li>Gantt Chart</li><li>Ambulance Bay</li></ul>
THE LESSON/MAIN ACTIVITY (WRITE THE KEY POINTS AND HOW YOU WILL RELATE IT, WHETHER YOU WILL USE A DRAWING, PICTURES, VIDEO, OR A PLAY. MAKE IT SUPER INTERESTING. HELP THE STUDENTS UNDERSTAND HOW THE LESSON APPLIES TO LIFE)	<b>Mission:</b> To design an emergency department that takes efficiency patient care to the next level. Students will design a more efficient emergency medicine delivery system. <b>Students will:</b> <ol style="list-style-type: none"><li>1. Determine factors that increase wait time and investigate some of the innovations that are helping address the concerns listed in the Mission Statement.</li><li>2. Research layout of floor plans in a specific location (school, urban, military base or under-served village), that best suit the assigned space.</li><li>3. With a team of designers (at student), submit modifications that may make a emergency room more efficient.</li></ol>
PRACTICAL ACTIVITIES (WORKSHEETS, CRAFTS, ARTWORK, RHYMES... OR ANY ACTIVITIES THAT WILL HELP UNDERSTAND THE SUBJECT, THESE MUST HELP)	<ol style="list-style-type: none"><li>1. Note-taking</li><li>2. Triage organizers &amp; Excel Sheets (Triage Practice Activity)</li><li>3. Student Resource Sheet</li><li>4. Research Types of Emergency Centers and locations</li><li>5. Coordinate with Art Department and Design Crew</li><li>6. Design a 3D schematic of the building or procedure</li><li>7. Create a model</li></ol>
ASSESS (REPEAT THE KEY THEME HAVE A QUIZ OR A DISCUSSION ABOUT THE LESSON)	<b>Mission:</b> To design an emergency department that takes efficiency patient care to the next level. Students will design a more efficient emergency medicine delivery system. <b>Students will:</b> <ol style="list-style-type: none"><li>1. Project (includes a schematic of the design, product, and patient medical history reports, triage)</li><li>2. Presentation of design (includes a Google Slide Presentation)</li><li>3. Demonstration of two patients who successfully maneuvered the new space</li></ol> Students must complete a reflection of the process and a peer critique form for at least one other team
CONCLUSION (END WITH THE RECITATION OF A DUA TO ASSIST LEARNING) "RABBI YONNE KIMMY"	Students will complete a set of conclusion questions <a href="http://www.qfathma.com">www.qfathma.com</a>

Click on the image to view the document

# Your Turn



**Instruction:** In your teams...

1. Outline a possible Lesson Plan
2. Scribe, document the Lesson as it is outlined in the final phase by each group member--integrate the different curriculums.

**Standard Addressing:**

1. Include Learning Intention
2. Include Success Criteria

**Possible Lesson:**

**Assessment:**

# Goal 4: Planning for the Future

## Four Phases of Curriculum Mapping

1. Laying the Foundation
2. Launching the Program
3. Sustaining and Integrating Mapping into the System
4. Mapping Into the Future

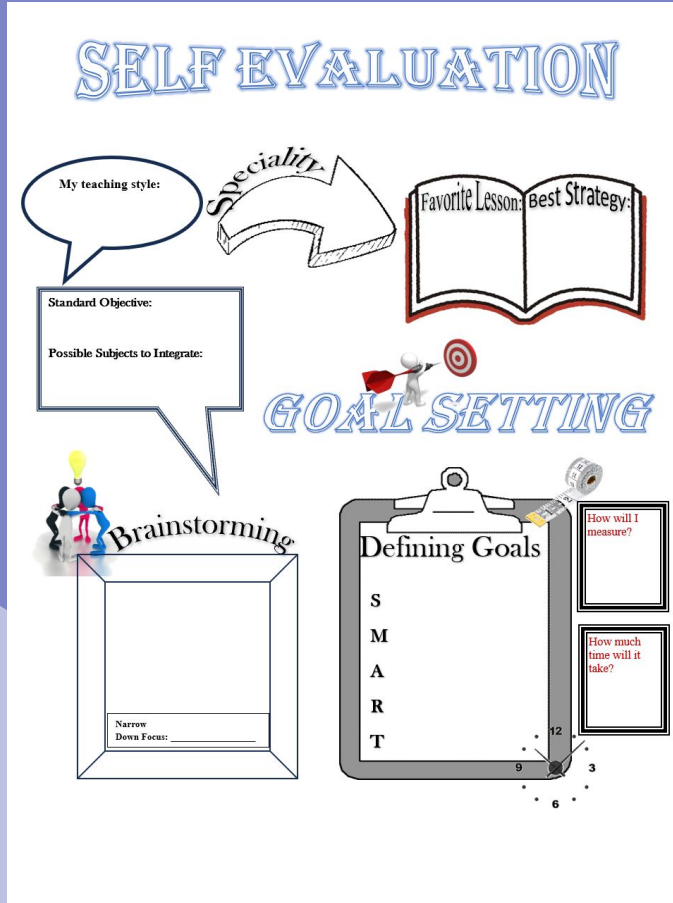
# Goal 4: Methods

- After Action:
  - Student feedback
  - Teacher Feedback
  - Collection of Artifacts
  - Identification:
    - \*Strengths
    - \*Weaknesses
    - \*Missing

# Self Evaluation Doodle Notes

In order to begin your preparation for a Cross-Curricular Project, it is important to get to know yourself.

1. Complete the Self-Evaluation Form that was provided to you when entering, or use the link (image) to the right for a digital version.
2. This will be a document that you will take with you when entering discussions with a team.



Click the image for a copy

# Discussion and Activity Slide



Think, Pair, and Share

Think: take 2-3 minutes to fill out  
the self evaluation Doodle Notes



# Discussion and Activity Slide



Pair:

With your table mates go around the table starting with the Facilitator from our community circles and share your self evaluation answers. When your entire group is done, give each other a round of applause.

**Consider:**  
What did you  
learn about  
yourself?

# Discussion and Activity Slide



Pair:

Second stage: Now, collaborate and create a hypothetical cross curricular project with the skills & items at your tables, incorporating as many subjects as you can.





# Discussion and Activity Slide



Share:

Elect a speaker or speakers at your table groups  
and be prepared to share what cross curricular  
projects ideas you came up with.



**03**

# Our Progress & Challenges



# Emergency Rooms

## Learning Intention (s):

1. I will be able to devise and execute a plan to solve a problem.
2. I will be able to design a medical space that is conductive to patient wellness and improves patient outcomes.



## Success Criteria:

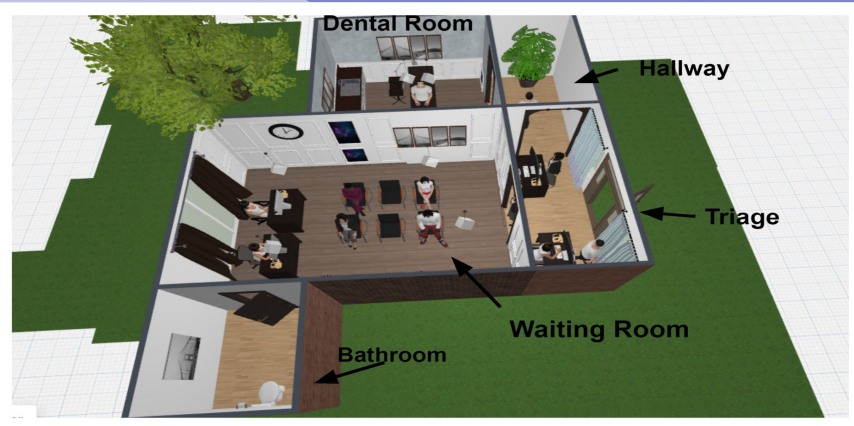
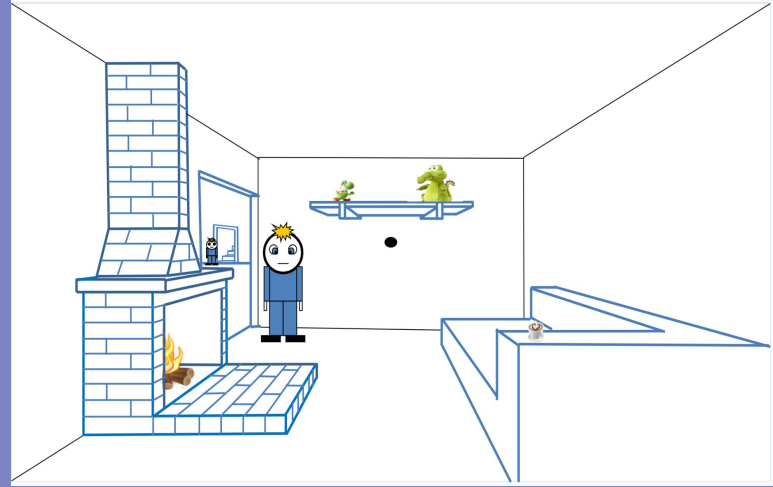


(4) I can...work with a team, to **design** a more efficient emergency medical delivery system, using input from students in the Art Pathway (Cross- Curricular Project).

(3) I can... work with a team to **decide on one unique idea** that would set our ER apart from the rest (innovation).

(2) I can **research** layouts or floor plans of emergency rooms and **discuss** with a team how and why the space is organized as it is (analysis).

(1) I can... work with a team to list modifications that could make an emergency room more successful. (brainstorming)



## Learning Targets

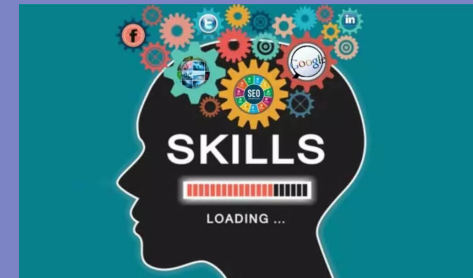
- I will design an Emergency room blueprint and be able to defend my design for efficiency for function, testing, care and storage.
- I will be able to draw a three dimensional model of one of the emergency rooms units to be a supportive artifact for my blueprint defense.



# Advisory Lessons

## 1. Career Skills

- a. [Resumes](#)
- b. [Mindfulness and Mental Health](#)
- c. Organization- [Email](#) and [calendars](#)
- d. [Career Awareness and Exploration](#)



# Winter Family Festival

1. It started with the dream of a school carnival project. without business pathway before it was a pathway.
  - a. Business students receive the scenario of putting on a carnival with a strict budget
  - b. Art pathway teams up with business student teams to create posters for games and activities AND they create a photo op set for Santa
  - c. Biomed pathway team hosts a Holiday Reading Corner for the children, integrating a medical/ health theme.
  - d. Heavy and Medium transportation pathway creates small race cars
  - e. Hospitality sells coco and coffee

# Winter Family Festival





# Every 15 minutes

Connecting With Community:

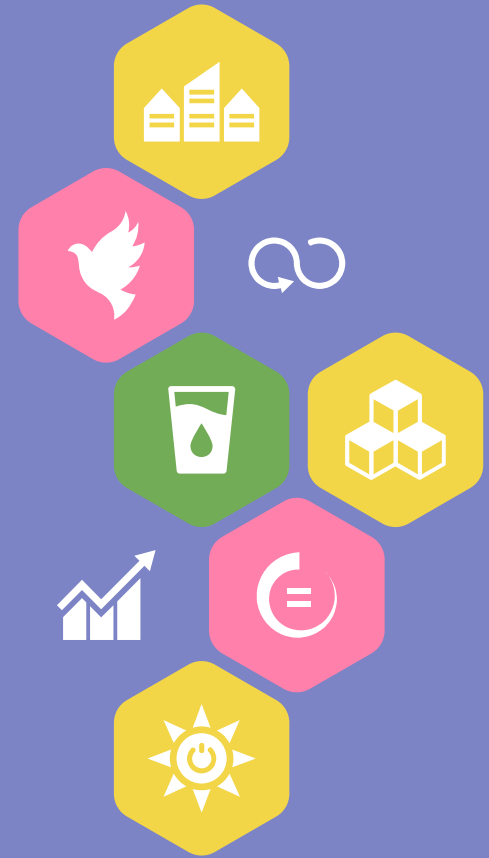
Community Partners, Bio Med Digital Design and Art collaborated to bring the effects of Underage Drinking to the school. This project required many working pieces to bring the final compilation into fruition. See it's outcome by clicking on the link to the right.



The students wrote, acted in and edited the skit and film for this project. Ms. Moore's Art Pathway, with student teams created the body work for injuries.

# Challenges

- Timelines in curriculums
- What happens if someone pulls out of the plan?
- Budgeting
- Student Commitment





# Key Learning Takeaways

- Plan well in advance
- Not everything has to happen at the exact same time during the set up. Nor does each partner need to do their part in order.
- It's okay if it's not perfect

Take a



, Take the



**You Got This!**





**04**

# Review & Questions

.....

# Refresher: Steps to Building Cross Curricular Projects

1. Map out your curriculum and identify where you can create a cross curricular project
2. Identify and reach out to who you can collaborate with.
3. Make time to work together and create a pacing guide, supply lists, budget, etc.
4. Take a breath and take the plunge.
5. Get feedback from students and partners and have an after action review meeting to plan for the next time.

**Always Look to Make it Better than the Last**



# Open Q&A



# Thank You for Joining Us



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# Alternative resources for Cross-Curricular Projects

A Random Poem Generator--can be used to enable participants in making and experimenting with **coding, art and languages**. A good tool for creating visual art and learning to code.

1. Coder gives the poem generator lists of words or phrases, which are then randomized and drawn on the screen.

[Processing](#)

[Art Museum](#)

**Gamification**--can be adopted to enable development through **history, math and science** to create a prehistoric organism in helping students search for information about their organisms. May also include **Visual Art** to establish backgrounds. Helps to develop skills like collaboration and imagination.

[Invertebrate  
Insanity](#)

**Sewing Circuits**---can be used to create a cross curricular between **technology, physics and art**. Theory of technology made visible when the idea of sewing circuits are introduced. Also teaches lessons in **life skills**.

[Textile &  
Circuits](#)

