

**STEAM Through Heritage Preservation** is a six-unit experiential curriculum that provides instructors with unique, relevant content and activities that teach middle school standards while igniting students' interest in heritage preservation, architecture, and engineering.

Target State:  
**INDIANA**

The curriculum was created with an equity lens in mind, recognizing the need to commemorate, honor, and conserve the histories of historically neglected and underrepresented communities.

**EQUITY  
COMMUNITY  
SUSTAINABILITY  
SIGNIFICANCE  
RELEVANCE**

**EDUCATE : INSPIRE : PRESERVE**



## STEAM THROUGH HERITAGE PRESERVATION



**Helena Currie**  
Technical Advisor &  
APTI ARC Co-Chair



**Ashima Krishna**  
Project Director



**Brianne Wrede**  
Director of Academics

**Indiana Curriculum Design Team**

Supported by  
the Historic Preservation  
Education Grant from Indiana  
Humanities and Indiana





**AIA APTI STEAM Through Heritage Preservation: Middle School Curriculum Summary**

**Unit 1 – Community**  
**Unit 2 – Significance**

**Unit 1: Identifying CER, Types of Data, and Types of Arguments**

**Part 1 - Recognizing Qualitative vs. Quantitative Data**

**Art Extension Activities**

Scripts + Lesson Plans | Slides + Assessments + Handout Materials | Art Extension Activities

**UNIT 1**  
Understanding Community and the Built Environment

**UNIT 2:**  
Understanding Historic Preservation, Equity, and Significance

**UNIT 3:**  
Architecture and Historic Preservation

**UNIT 4:**  
Structural Engineering and Historic Preservation

**UNIT 5 & 6:**  
Historic Preservation Community-based Projects

**AIA APTI STEAM Through Heritage Preservation: Middle School Curriculum Summary**

**Unit 3 – Architecture and Historic Preservation**

**Unit 4 – Engineering and Historic Preservation**

**Unit 5 and 6 – Community-based Design Project**

# Proposed six units CURRICULUM

*"It is so rewarding to bring preservation into public schools and watch the next generation begin to explore and question the built environment around them. By introducing preservation as story-telling at a young age, we hope to diversify the minds and voices contributing to preservation conversations in the years to come."*

- Helena Currie  
Technical Advisor &  
APTI ARC Co-Chair


Supported by  
The Historic Preservation Education Grant from  
Indiana Humanities and Indiana Landmarks





# Academic Curriculum that Introduces Preservation as Story Telling

### The African Meeting House



The oldest Black church edifice still standing in the US and where the Anti-Slavery Society was founded and Frederick Douglass spoke.

### The Old South Meeting House



Where Colonists decided to resist the British tax policies through the Boston Tea Party.

### What does historic preservation look like?

Maintaining an item in its original condition.	Preventing future damage/decay.	Documenting an item prior to removing or replacing it.	Converting the use and/or appearance of an item to provide more relevance in today's world.
--	---------------------------------	--	---



Do you recognize this building? Check out the ideas for preserving and using it!

### The Fowler House



- Built in 1852, and is one of ninety-seven known Gothic Revival style buildings.
- Tells the story of a prominent family in the City of Lafayette.
- Serves as a restaurant/wedding venue.
- Listed on the National Register of Historic Places in 1975.

### Fort Oulatenon



- Built in 1717, this was the first fortified European settlement in what is now Indiana.
- Every year, a reenactment of pioneer life, called the Feast of Hundreds' Moon, is held at a replica fort near the original site.
- Listed on the National Register of Historic Places in 1970 and designated a National Historic Landmark in 2021.

### What does historic preservation look like?

Maintaining an item in its original condition.	Preventing future damage/decay.	Documenting an item prior to removing or replacing it.	Converting the use and/or appearance of an item to provide more relevance in today's world.
--	---------------------------------	--	---

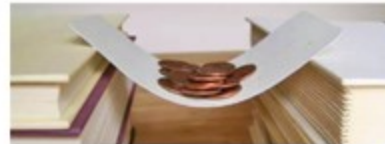




Fowler House Mansion  
Green Revival Style, built 1852



Margerum City Hall  
Tudor Revival Style, built 1929

Do you recognize these buildings? Check out the ideas for preserving and using them!







The diagram below shows the relationship of a grade. With evidence from a CER/CE

As the diagram of reasoning for support evidence or sign-logic. Offer in the case of the student.

1. CER/CE/CE  
2. CER/CE/CE  
3. CER/CE/CE  
4. CER/CE/CE



### CER Claim / Evidence / Reasoning

**C** Claim: Answer to a question

- A statement that is used to be used as a conclusion based on evidence and reasoning.
- The use of the language (precision & reasoning) varies greatly for users.

**E** Evidence: Data to support the claim

- Facts gathered from credible sources.
- Quantitative and/or qualitative data that was provided or collected during a process.
- Observations from the case should prove the claim is correct.

**R** Reasoning: Connects the evidence to the claim

- Explains the reason why the claim is true based on facts and data interpretation.
- Reasoning includes principles and their use described.

### What makes two of these places significant?

Be ready to explain using some of the reasons listed below.

What *story* does it tell?

What *events* took place there?



Who *lived* there and what did they do?

Was the person who built it *exceptional* in some way?

Does it represent a certain way of life or *culture* or style?

Does it have *unique* features or characteristics?

Does it have *artistic* significance?

Supported by the Historic Preservation Education Grant from Indiana Humanities and Indiana Landmarks





# INDIANA CIRCULLUM

Supported by  
the Historic Preservation Education Grant from  
Indiana Humanities and Indiana Landmarks



Clegg Memorial Garden – Lafayette, IN



Downtown Lafayette Historic District – Lafayette, IN

What do these pictures of the built environment tell you about what the society or communities of Lafayette **value**?



Tippecanoe County Public Library – Lafayette, IN



City Bus Stop – Lafayette, IN

## Explores how the Built Environment Reflects Local Societal Values

*"I am passionate about this program because it creates opportunities for students to engage in STEAM learning, explore their community heritage, and see themselves as difference makers for the future."*

*- Brianne Wrede, Director of Academics*

*Adaptation from Boston Curriculum*



Marcello Playground - Roxbury, MA



Tina Squares Basketball Court - Somerville, MA

What do these pictures of the built environment tell you about what the society or communities of Boston **value**?



Renovated Public Library - Mattapan, MA



Typical City Streetscape - Boston, MA



# INDIANA CIRCULLUM

Supported by  
the Historic Preservation Education Grant from  
Indiana Humanities and Indiana Landmarks



## Architecture Example: What is the purpose of this building?



Purdue Memorial Union, West Lafayette, IN

## The inside was renovated.

Let's look inside at this [before](#) photo. What do you notice?

How do you think that people **felt** when they were inside?



Purdue Memorial Union, West Lafayette, IN

## The inside was renovated.

Let's look inside at the [after](#) photos. What do you notice?

How do you think that people feel **now** when they are inside?



Purdue Memorial Union, West Lafayette, IN

## Demonstrates Local Preservation Examples

*This program is a wonderful and localized way for middle school students to get introduced to and excited about historic preservation, and I hope to have opportunities to enhance their higher education in this field at Purdue University.*

*- Ashima Krishna, Program Director*

## Wait! How is this preservation?

Despite changing and brightening the inside, they kept many of the historic elements and features. The outside was pretty much left as is (cleaned up a bit), and some exterior landscaping/seating was added to make it more welcoming!



How do you feel differently inside and outside of this building?

## Preservation Architects use the Design Process

1. **DEFINE.** Define and set goals for the design problem.
2. **INVESTIGATE.** Research the design problem.
3. **BRAINSTORM.** Generate ideas and sketches to explore many design solutions.
4. **CHOOSE A SOLUTION.** Choose one solution that best meets your design goals.
5. **DESCRIBE THE SOLUTION.** Draw, build or write to explain your design ideas.
6. **EVALUATE.** See how well your design meets your goals and solves your design problem. Identify any drawbacks or areas for improvement.
7. **PRESENT.** Share your design with others.
8. **RE-DESIGN.** Think about how you would improve your design based on what you know now.

## Design Team investigation:

Your team will design one of these buildings. Together answer the questions on the next slide. Remember, these are your best guesses!



# Culminates in a Real-World Adaptive Reuse Project



Grade 6 Historic Preservation STEM Lesson Plan  
Units 5&6  
Preservation Project Rubric & Directions

### Introduction/Overview:

As we've learned in Units 1 to 4, the buildings around us should serve our community needs and reflect our societal values. There are many advantages to preserving (saving) existing buildings, whether it be because of the story the building tells or the positive effects on the environment (by reusing rather than disposing of existing building materials). Saving a building often requires community advocates (that's you!) to reach out to local politicians and decision-makers with rationale to save existing (vacant, underutilized or otherwise endangered) buildings and to create compelling ideas for reuse that will make the building more relevant to the current community. For Units 5 and 6, students will spend up to two weeks researching an endangered building in Indiana and developing a persuasive letter to real-world leaders that outline why and how the building should be protected. The letters will be accompanied by a physical representation of the proposed protection/reuse, which will be attached to the email.

### Project Outline/Steps:

#### 1. Project Development:

- Select a building to save using the following list: [10 Most Endangered - Indiana Landmarks](#)
- Let the teacher know which building you've selected and why.
- Determine who to send your email to that might have influence in protecting the building. Think about who currently owns the building and who used to own the building. Think also about local community advocacy groups that might support such a project.
- Fill out the [PROJECT TRACKING SLIP](#) to keep track of everyone's buildings/emails.

#### 2. Use Claim, Evidence and Reasoning to develop a compelling argument to protect or reuse the building and convince the recipient of the letter to assist in that effort.

- Outline the main argument using handouts from Units 1 and 2, Smash Boom Best.
- Develop your letter using this [EMAIL SAMPLE/TEMPLATE](#).
- Remember to check the rubric to ensure you have everything you need.
- Get at least two peer reviews of draft letter from classmates.

#### 3. Create a visual/oral/graphic representation of the proposed adaptive reuse or historic intervention.

- This can be done with sketch-up, hand sketches, internet images, music/verbal recording, etc.
- Present preservation/adaptive reuse representation to classmates for feedback.

#### 4. Compile and send the letter with image/rendering as an attachment.



Grade 6 Historic Preservation STEM Lesson Plan  
Units 5&6: Email Template

Dear *[insert names here]*

### Introduce yourself

My name is \_\_\_\_\_  
I go to \_\_\_\_\_  
I'm in \_\_\_\_\_ grade  
I am taking a class called Indiana Historic Preservation where we are learning about \_\_\_\_\_

I am writing to you because...

*[Explain why you think the building you chose should be saved and ideas for how it could benefit the city]*

\_\_\_\_\_ is important to Indiana because \_\_\_\_\_  
The community of \_\_\_\_\_ needs \_\_\_\_\_ because \_\_\_\_\_  
An idea I have for adaptive use is \_\_\_\_\_

*This section should be at least 3 sentences. Show off everything you know about the building and why it's important. What would the community be missing if it was torn down? Is there a way the building could be reused instead of tearing it down (think about adaptive reuse)?*

I am attaching a \_\_\_\_\_ (representation) of the proposed (preservation/reuse) to demonstrate the impact saving this building could have on the community. The representation emphasizes how (preservation/reuse) will \_\_\_\_\_.

*This section should be at least 3 sentences. Describe the main technical and emotional argument the representation buildings on and why you chose the media/form of communication you did. Give credit if you borrowed or built on images/ideas from others.*

### Closing

Thank the reader for their time, encourage them one last time to save the building you are writing for.

Sincerely,  
Your name

INDIANA LANDMARKS

Join & Give About Our Historic Sites & Rental Venues Tours & Events News For Sale [10 Most Endangered](#)

**10 MOST ENDANGERED**  
Going...Going...Not Quite Gone  
THE PLACES WE COULD LOSE UNLESS WE ACT

**Hulman Building and Garage**  
20 NORTHWEST 4TH STREET, 109-111 NORTHWEST 3RD STREET, EVANSVILLE

**Stinesville Commercial Buildings**  
8211-8237 WEST MAIN STREET, STINESVILLE

Supported by  
the Historic Preservation Education Grant from  
Indiana Humanities and Indiana Landmarks



STEAM Through  
Heritage Preservation:  
Middle School Curriculum



This is an **APTI Academics & Research Committee** initiative in collaboration with the **National Council for Preservation Education** (NCPE) and the **American Institute of Architects** (AIA), **Historic Resources Committee** (HRC), with continuous input from **teachers and experts** in the field of preservation education to develop this program.

Thank you!

## Partners & Sponsors

It is an outcome of efforts undertaken by the APTI Academics & Research Committee Chairs - **Helena Currie and Michael Tomlan**, and **its members**.

*"APTI is honored to assist the statewide and local organizations involved in the education of future preservation professionals throughout the world"*

- Michael A. Tomlan, FAPTI  
Co-Chair Academics & Research Committee

EQUITY  
COMMUNITY  
SUSTAINABILITY  
SIGNIFICANCE  
RELEVANCE

*Our Sponsors for Indiana Curriculum Design & Implementation*



*Partners*



*Initiative by*

*APTI Academics & Research Committee*



The Association for Preservation Technology International  
*L'Association internationale pour la préservation et ses techniques*