

**Project Information**

<p>Project Title:</p>	<p>The Cost of Discovery: Modeling Cross-Curricular Unit Design Through the Story of Henrietta Lacks</p>
<p>Project Description:</p>	<p>This project involves the design and development of a 15 to 20-minute asynchronous professional learning module for high school educators and instructional designers.</p> <p>The module presents a modeled example of cross-curricular unit design using the story of Henrietta Lacks as a shared anchor. Learners move through a bounded lesson arc and then examine how the unit is intentionally structured to support alignment across disciplines while preserving disciplinary integrity.</p> <p>The module does not require implementation or independent curriculum development. Instead, it makes structural decisions visible for analysis. Learners focus on how scope is controlled, how boundaries are defined, and how alignment is achieved without collapsing subject areas. The purpose of the module is to provide a clear, analyzable example of cross-curricular architecture within a realistic timeframe for professional learning.</p>
<p>Gap Analysis:</p>	<p>High school instruction is typically organized by discipline. Although real-world issues span multiple subject areas, cross-curricular design is often discussed without being structurally modeled.</p> <p>Educators may value interdisciplinary learning but lack concise examples that demonstrate how to maintain disciplinary rigor while supporting alignment. Without clear modeling, cross-curricular efforts can unintentionally expand scope, blur boundaries, or increase planning demands.</p> <p>This project addresses the absence of bounded, analyzable examples of cross-curricular unit architecture. Rather than asking educators to collaborate or implement change, the module presents a complete example that makes structural inclusions, exclusions, and alignment strategies visible.</p>

	The desired performance is for learners to analyze and evaluate structural features that support coherence across disciplines.
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### Roles and Responsibilities

Learning Designer:	<b>Marissa Atchison</b> Responsible for instructional design, content development, media creation, assessment development, and module construction in Articulate Storyline 360.
Critical Project Stakeholders:	<b>High school educators across core disciplines, instructional designers, and curriculum developers.</b> High school educators across core disciplines, instructional designers, and curriculum developers. Stakeholders inform design decisions through shared instructional constraints such as standards alignment, pacing guides, time limitations, and accountability requirements.
Subject Matter Experts (person or resource):	<b>Marissa Atchison</b> High school science educator with more than 13 years of teaching experience, including instruction related to ethics and the story of Henrietta Lacks. Provides disciplinary accuracy and practitioner insight into how cross-disciplinary work functions within secondary classrooms.
Other Contributors:	<b>None</b> Marissa Atchison, the learning designer, will complete all instructional design, content development, and media creation.

### Learner Analysis

Target Audience:	The target audience includes high school educators and instructional designers who support secondary instruction. Learners are expected to have experience in curriculum planning and to understand discipline-specific standards and structural constraints.
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<p>Unique Characteristics of Learners:</p>	<p>Learners bring strong disciplinary knowledge and professional experience. They work within subject-specific boundaries and often have limited time for cross-curricular collaboration.</p> <p>Professional learning must respect their expertise and acknowledge instructional constraints. This module positions learners as analysts of design decisions rather than as novices completing procedural steps.</p>
<p>Research / Theory / Model Selected in Response to Learners' Needs:</p>	<p>This module is grounded in Merrill's First Principles of Instruction.</p> <p>The experience begins with a real instructional challenge: designing cross-curricular units without collapsing disciplinary integrity. The story of Henrietta Lacks functions as the shared anchor that organizes the lesson arc.</p> <p>Learners activate prior knowledge about instructional structure and disciplinary boundaries. The modeled unit is presented before structural analysis begins. Learners then apply analytical reasoning through classification and evaluation activities. The module concludes with a conceptual synthesis that reinforces architectural clarity.</p>

**Project Content**

<p>Project Goal:</p>	<p>The goal of this project is to model a structured example of cross-curricular unit design and make its architectural decisions visible for analysis.</p>
<p>Learning Objectives:</p>	<p><b>Terminal Objective 1</b></p> <p>By the end of the module, learners will analyze a modeled cross-curricular unit to identify structural features that support alignment across disciplines.</p> <p><b>Enabling Objectives</b></p> <p>1.1 Identify major structural components of the modeled unit</p>

	<p>1.2 Distinguish between intentional inclusions and exclusions</p> <p>1.3 Explain how structural decisions support coherence across subject areas</p> <p><b>Terminal Objective 2</b></p> <p>By the end of the module, learners will evaluate how a shared anchor supports cross-disciplinary alignment while preserving disciplinary boundaries.</p> <p><b>Enabling Objectives</b></p> <p>2.1 Identify characteristics that make the case effective as a shared anchor</p> <p>2.2 Compare how disciplinary lenses engage the same anchor</p> <ul style="list-style-type: none"> <li>• 2.3 Explain how alignment differs from content overlap</li> </ul>
<p>Description of Engagement Strategies/ Interaction</p>	<p>The module is organized into three scenes: orientation, case immersion, and architectural analysis.</p> <p>Scene 1 establishes the scope and clarifies that the module focuses on analyzing design structure rather than delivering disciplinary content.</p> <p>Scene 2 presents the shared anchor through two segmented instructional videos. A non-graded reflection checkpoint prompts learners to consider the implications of scale. A mastery-based multiple-choice question requires learners to identify the structural feature that makes the case effective as a shared anchor.</p> <p>Scene 3 shifts to architectural analysis. Learners examine a visual representation of the unit structure and complete a classification activity that requires distinguishing between structural inclusions and scope extensions. Immediate, phrase-specific feedback reinforces structural reasoning. Interactions are mastery-based where appropriate and remain focused on design analysis rather than content recall.</p>

<p>Assessment Plan:</p>	<p>All assessments are embedded within Articulate Storyline and are automatically scored.</p> <p><b>Shared Anchor Mastery Check</b> A single-answer multiple-choice question requires learners to identify the structural characteristic that enables the case to function as an effective shared anchor. Mastery is required to advance. This assessment measures Enabling Objective 2.1.</p> <p><b>Design Boundaries Classification Activity</b> Learners classify four instructional elements as either supporting structural focus or extending beyond scope. Progression requires the correct classification of each element. Immediate feedback clarifies structural reasoning and reinforces the distinction between alignment and overlap. This assessment measures Enabling Objectives 1.2 and 2.3.</p> <p><b>Reflection Checkpoint</b> A required multi-select reflection prompt asks learners to consider what becomes less visible as systems scale. This interaction is not graded but serves as a conceptual pause before disciplinary analysis.</p> <p><b>Content Outline</b> <b>Scene 1: Module Introduction</b> Clarification of purpose and scope Explanation of what the module is and is not Overview of module sequence and mastery expectations</p> <p><b>Scene 2: Enter the Case</b> Segmented video introducing the shared anchor Reflection checkpoint Segmented video addressing impact and accountability Mastery question on shared anchor effectiveness</p> <p><b>Scene 3: Examine the Architecture</b> Transition from narrative to structural analysis Unit architecture diagram Classification activity focused on scope boundaries Final synthesis reinforcing alignment without overlap</p>
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Content Outline (brief):	<p><b>Scene 1: Module Introduction</b>  <b>Purpose:</b> Establish scope and analytical expectations.</p> <ul style="list-style-type: none"> <li>• Course Welcome</li> <li>• What This Module Is and Is Not</li> <li>• Module Roadmap and mastery expectations</li> </ul> <p>Learners are positioned as analysts of a modeled design rather than implementers of a curriculum.</p> <p><b>Scene 2: Enter the Case</b>  <b>Purpose:</b> Present the shared anchor before structural analysis begins.</p> <ul style="list-style-type: none"> <li>• Segmented video introducing the Henrietta Lacks case <ul style="list-style-type: none"> <li>○ Event and consent</li> <li>○ Scientific breakthrough</li> <li>○ Scale and systems</li> </ul> </li> <li>• Reflection checkpoint on visibility and scale</li> <li>• Segmented video addressing impact, accountability, and interdisciplinary reach</li> <li>• Mastery check identifying the structural strength of the shared anchor</li> </ul> <p>This scene functions as a worked example prior to architectural examination.</p> <p><b>Scene 3: Examine the Architecture</b>  <b>Purpose:</b> Make the structural blueprint of the modeled unit visible.</p> <ul style="list-style-type: none"> <li>• Transition to architectural analysis</li> <li>• Unit architecture diagram</li> <li>• Classification activity distinguishing structural inclusions from scope extensions</li> <li>• Final synthesis reinforcing alignment without overlap</li> </ul> <p>Learners complete mastery-based analysis before finishing the module.</p>

## Course Deliverables

LMS Platform or Authoring Tool to be Used:	<b>Articulate Storyline 360</b>
Description of Deliverables / Course Assets:	<p><b>Module Characteristics</b> Fully asynchronous Linear navigation with mastery gates Estimated completion time of 15 to 20 minutes</p> <p><b>Instructional Media</b> Two self-produced segmented instructional videos integrated within Storyline. Combined runtime is approximately seven to eight minutes.</p> <p><b>Accessibility</b> The module aligns with WCAG 2.2 guidelines. Features include captioned video, high-contrast visuals, keyboard-accessible interactions, and consistent navigation.</p> <p><b>Supporting Design Artifacts</b> Project Plan Design Document Final Storyboard</p>

## ID Reflection

How does learning about this topic apply to your future professional plans?	<p>This project aligns closely with the kind of instructional design work I want to continue developing in secondary education and professional learning contexts. While much of my background is rooted in science instruction, this design work is pushing me to think more deliberately about how learning experiences can support connections across disciplines without relying on ideal conditions that rarely exist in schools. Designing within real constraints, rather than around them, is shaping how I approach this project and how I want to approach my work moving forward.</p> <p>The story of Henrietta Lacks is a topic I have long found deeply compelling, which makes it both a meaningful and challenging choice as the shared anchor for this module. Because this topic is one of my personal areas of interest, I need to exercise intentional restraint to prevent the scope from expanding beyond what is appropriate for a short</p>
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professional learning experience. Working through decisions about what to include, what to exclude, and how much depth is necessary has been an important part of the design process so far. This project actively reinforces the idea that intentional exclusion is not a limitation but a critical design skill.

As the module continues to take shape, it is clarifying my interest in designing professional learning that prioritizes analysis and informed decision-making rather than compliance or implementation. Instead of asking educators to produce materials or adopt a specific approach, this design focuses on examining design choices and considering how a process might be adapted when conditions allow. That distinction reflects the kind of professional learning I want to create and the roles I am interested in pursuing, particularly those involving curriculum design and educator-facing professional development.

More broadly, this project is sharpening my attention to feasibility and transfer as core design priorities. The work reinforces that learning experiences do not need to be long to be meaningful, but they do need to be clear, realistic, and respectful of the contexts in which learners work. As I continue developing this module, these considerations guide my decisions and shape the instructional designer I am becoming.