

2022 STEM 4023/5023 Final Project - Remaking a Novel Study

TASK: As you prepare for your future classroom, you will develop an integrated STEM novel study or close reading of text for K-2 unit of instruction to “remake literacy” for your future students. Your unit should provide enough detail to be used during 10-15 full-days of instruction. Your focus will be on designing the environment for your students to embrace creativity and innovation through integrated STEM learning experiences that foster technological and engineering literacy.

PARAMETERS: This is an individually created work and may be developed in any creative and interactive format that can be used to highlight your skills as a future teacher, STEM Champion, innovative educator, hacker, and maker. Besides the written 10 to 15-day unit of instruction, you will develop a webpage such as WordPress, WIX, or Webnode, or Weebly site that highlights your unit of instruction which can also be embedded in your resume. When writing your unit, consideration should be prioritized to what “the student will” (TSW) as opposed to what “the teacher will” (TTW).

BIG IDEA: You are a STEM Champion and your future students, your future team, and the world needs to know how you will teach to inspire creativity and innovation in your classroom! Think of your student’s looking back on you as their teacher and saying, “She saw something in me that no one else saw.”

DELIVERABLES:

1. Your project **MUST** include the following:
 - Multiple examples included from the following list:
tinkering, designing, building, problem solving, empathy, individual student “tinkering toolbox,” Laser cutter, TinkerCAD, paper engineering, 3D printing, CorelDRAW or another vector software program, maker-tech, low-tech making, creative notetaking, construction blocks, a technical procedural experiences, simple tools, a quick challenge, circuits, simple motors, _____.
 - Connections to children’s literature
 - Evidence of standard integration from your chosen grade in ELA, Math, Science, Technological and Engineering Literacy, and other areas.
 - Strong explicit connections to 21st Century Sills, and persistence, motivation, perseverance, and imagination.
 - Examples of your students using your engineering design loop from Intro to STEM.
 - A deliberation showing your understanding how your unit can be adapted to another grade level
2. Your unit **MUST** highlight:
 - Your ability to effectively develop a creative STEM learning environment in your future classroom
 - Sample design briefs that highlight your abilities
 - Photographs and detailed descriptions of exemplary teaching models
3. You **MUST** include how you plan to assess the learning throughout the unit:
 - traditional passive assessment, or active assessment?
 - formative assessment, or summative?
4. Your website **MUST** include the following components:
 - Homepage that includes information that introduces you as a ‘STEM Champion’
 - Updated resume with QR code that links to your website
 - A 2-3 minute video introduction that introduces you and the content on your website. Think of this video presentation as an “elevator speech” where you have the chance to stand out from a group of teacher applicants and to prove yourself as a STEM champion.
5. Your will final submission will be the link to your website.