

## STEAMS Harriet Tubman Project-Based Lesson Plan (K-12)

**Objective:** The primary objective of this lesson plan is to engage students in an interdisciplinary exploration of Harriet Tubman's life and her contributions to the abolitionist movement and the Underground Railroad. By integrating STEAMS components, students will develop empathy, critical thinking skills, and an understanding of social justice issues. They will delve into various aspects of Harriet Tubman's story, including history, science, technology, engineering, arts, mathematics, and social studies.

### Key Components

<b>Science (S):</b>	<b>Topics:</b> <ul style="list-style-type: none"><li>❖ Investigate the natural sciences relevant to Harriet Tubman's environment and the Underground Railroad, including geography, botany, and survival skills.</li><li>❖ Explore the science of human resilience and adaptation in challenging environments, such as the marshes and forests traversed by Tubman during her journeys.</li></ul>
<b>Technology (T):</b>	<b>Topics:</b> <ul style="list-style-type: none"><li>❖ Utilize digital tools to research Harriet Tubman's biography, the geography of the Underground Railroad routes, and the technologies used in the 19th century.</li><li>❖ Create digital maps or multimedia presentations to visualize Tubman's escape routes and the network of safe houses along the Underground Railroad.</li></ul>
<b>Engineering (E):</b>	<b>Topics:</b> <ul style="list-style-type: none"><li>❖ Engage in an engineering design challenge inspired by Tubman's</li></ul>

	<p>ingenuity and resourcefulness in creating disguises, secret signals, and safe hiding places.</p> <ul style="list-style-type: none"> <li>❖ Design and construct models of hidden compartments or secret passages, reflecting the architectural innovations of the Underground Railroad era.</li> </ul>
<p><b>Arts (A):</b></p>	<p>Topics:</p> <ul style="list-style-type: none"> <li>❖ Explore the artistic representations of Harriet Tubman's story through literature, music, and visual arts, including spirituals and other forms of expression.</li> <li>❖ Create original artwork inspired by Tubman's experiences, using various mediums to convey emotions and themes related to freedom, courage, and resistance.</li> </ul>
<p><b>Math (M):</b></p>	<p>Topics:</p> <ul style="list-style-type: none"> <li>❖ Apply mathematical concepts to analyze data related to Tubman's journeys, such as distances traveled, travel times, and navigation strategies.</li> <li>❖ Explore mathematical puzzles or challenges inspired by Tubman's use of coded messages and strategic planning to evade capture and guide fugitive slaves to freedom.</li> </ul>
<p><b>Social Studies (SS):</b></p>	<p>Topics:</p> <ul style="list-style-type: none"> <li>❖ Delve into the historical and social context of Harriet Tubman's life, including the institution of slavery, the Underground Railroad, and the abolitionist movement.</li> <li>❖ Discuss the impact of Tubman's actions on the fight for freedom and the ongoing struggle for civil rights, as</li> </ul>

	well as her legacy as a symbol of courage and resilience.
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**Project Phases and Timeline:**

<b>Day 1: Science</b>	<ul style="list-style-type: none"> <li>❖ Introduction to Harriet Tubman and the natural sciences relevant to her story.</li> </ul>
<b>Day 2: Technology</b>	<ul style="list-style-type: none"> <li>❖ Research Tubman's biography and the technologies and tools used in the Underground Railroad.</li> </ul>
<b>Day 3: Engineering</b>	<ul style="list-style-type: none"> <li>❖ Engage in an engineering design challenge related to creating hidden passages or secret signals.</li> </ul>
<b>Day 4: Arts</b>	<ul style="list-style-type: none"> <li>❖ Explore artistic representations of Tubman's story and create original artwork inspired by her experiences.</li> </ul>
<b>Day 5: Math</b>	<ul style="list-style-type: none"> <li>❖ Apply mathematical concepts to analyze Tubman's journeys and solve related problems.</li> </ul>
<b>Day 6: Social Studies</b>	<ul style="list-style-type: none"> <li>❖ Discuss the historical and social context of Tubman's life and her impact on the abolitionist movement and civil rights.</li> </ul>

## **Assessment Criteria**

Students will be assessed based on their participation in discussions, completion of assignments and projects, creativity in design challenges and artwork, and understanding of Harriet Tubman's life and her contributions to the abolitionist movement and the fight for freedom.