

## STEAMS Cinco de Mayo Project-Based Lesson Plan (7-12)

**Objective:** The objective of this interdisciplinary lesson plan is to celebrate Cinco de Mayo by exploring Mexican heritage and innovation through a STEAMS (Science, Technology, Engineering, Arts, Mathematics, and Social Studies) approach. Students will delve into the scientific contributions of Mexican scientists, technological innovations from Mexico, engineering marvels of modern Mexico, artistic expressions of Mexican culture, mathematical patterns in Mexican folk art, and social studies perspectives on Mexican heritage and identity. Suitable for grades 7-12, this lesson plan aims to foster appreciation for Mexico's rich cultural heritage and its contributions to global innovation.

### Key Components

<b>Science (S): Contributions of Mexican Scientists</b>	Topics: <ul style="list-style-type: none"><li>❖ Activity: Investigate the notable contributions of Mexican scientists to various fields, including biology, chemistry, and astronomy. Explore their groundbreaking discoveries and their impact on science and society.</li></ul>
<b>Technology (T): Technological Innovations from Mexico</b>	Topics: <ul style="list-style-type: none"><li>❖ Activity: Explore technological innovations originating from Mexico, such as advancements in renewable energy, telecommunications, or aerospace technology.</li></ul>
<b>Engineering (E): Modern Engineering Marvels in Mexico</b>	Topics: <ul style="list-style-type: none"><li>❖ Activity: Investigate modern engineering projects in Mexico, including infrastructure development, sustainable architecture, and urban planning. Analyze the engineering challenges involved, environmental considerations, and societal impacts of these projects.</li></ul>

<p><b>Arts (A): Artistic Expressions of Mexican Culture</b></p>	<p>Topics:</p> <ul style="list-style-type: none"> <li>❖ Activity: Examine artistic expressions of Mexican culture through traditional crafts, music, dance, and literature. Explore the rich diversity of Mexican arts and crafts, including Huichol beadwork, papel picado, mariachi music, and traditional dance forms.</li> </ul>
<p><b>Math (M): Mathematical Patterns in Mexican Folk Art</b></p>	<p>Topics:</p> <ul style="list-style-type: none"> <li>❖ Activity: Explore mathematical principles and geometric patterns found in Mexican folk art, textiles, and architecture. Identify mathematical concepts such as symmetry, fractals, and tessellations in Mexican folk art.</li> </ul>
<p><b>Social Studies (SS): Mexican Heritage and Identity</b></p>	<p>Topics:</p> <ul style="list-style-type: none"> <li>❖ Activity: Research the historical context of Cinco de Mayo, including its origins and evolution as a symbol of Mexican identity and resistance. Explore the celebration of Mexican heritage and identity in the United States and other countries, discussing cultural pride and the importance of cultural exchange.</li> </ul>

**Assessment Criteria**

By the end of this lesson plan, students will demonstrate a comprehensive understanding of Mexican heritage and innovation, as well as proficiency in interdisciplinary skills across STEAMS disciplines. Assessment will be based on project completion, research quality, critical analysis, creativity, and the effectiveness of presentations. This Cinco de Mayo STEAMS Project-Based Lesson Plan aims to foster cultural appreciation, innovation, and cross-cultural understanding.