

## STEAMS Presidents' Day Project-Based Lesson Plan (6-8)

**Objective:** The objective of this project is to engage middle school students (grades 6-8) in an in-depth exploration of the U.S. Presidents using the STEAMS curriculum (Science, Technology, Engineering, Arts, Math, and Social Studies). Students will gain insights into historical, scientific, and technological aspects, while also honing their skills in arts and mathematics.

### Key Components

<b>Science (S): Presidential Environmental Initiatives</b>	Topics: <ul style="list-style-type: none"><li>❖ Explore environmental initiatives and policies implemented by various U.S. Presidents.</li><li>❖ Discuss the impact of these initiatives on the environment.</li></ul>
<b>Technology (T): Technological Advancements during Presidencies</b>	Topics: <ul style="list-style-type: none"><li>❖ Investigate technological advancements associated with specific U.S. Presidents.</li><li>❖ Research how technology influenced presidential communication and decision-making.</li></ul>
<b>Engineering (E): Presidential Monuments and Architecture</b>	Topics: <ul style="list-style-type: none"><li>❖ Examine the engineering and architectural aspects of presidential monuments (e.g., Mount Rushmore, Lincoln Memorial).</li><li>❖ Engage in a design activity to create a miniature presidential monument.</li></ul>
<b>Arts (A): Portraits and Political Cartoons</b>	Topics: <ul style="list-style-type: none"><li>❖ Integrate arts by having students create portraits of U.S. Presidents.</li><li>❖ Analyze and create political cartoons depicting historical events during presidencies.</li></ul>

<b>Math (M): Economic Policies and Presidential Decision-Making</b>	<b>Topics:</b> <ul style="list-style-type: none"> <li>❖ Analyze the economic policies implemented by different U.S. Presidents.</li> <li>❖ Explore the mathematical aspects of economic decision-making and budgeting.</li> </ul>
<b>Social Studies (SS): Historical Context and Presidential Impact</b>	<b>Topics:</b> <ul style="list-style-type: none"> <li>❖ Explore the historical context of different presidencies.</li> <li>❖ Discuss the societal impact of key decisions made by U.S. Presidents.</li> </ul>

<b>Project Phases and Timeline</b>
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<b>Week 1-2: Introduction to STEAMS and U.S. Presidents</b>	<b>Activities:</b> <ul style="list-style-type: none"> <li>❖ Introduce the project and its interdisciplinary nature.</li> <li>❖ Assign presidents to students for individual research.</li> </ul>
<b>Week 3-4: Science - Environmental Initiatives</b>	<b>Activities:</b> <ul style="list-style-type: none"> <li>❖ Explore and present on environmental initiatives by assigned U.S. Presidents.</li> </ul>
<b>Week 5-6: Technology - Technological Advancements</b>	<b>Activities:</b> <ul style="list-style-type: none"> <li>❖ Research and present on technological advancements associated with specific U.S. Presidents.</li> </ul>
<b>Week 7-8: Engineering - Presidential Monuments</b>	<b>Activities:</b> <ul style="list-style-type: none"> <li>❖ Explore and discuss the engineering aspects of presidential monuments.</li> <li>❖ Engage in a design activity to create a miniature presidential monument.</li> </ul>
<b>Week 9-10: Arts - Portraits and Political Cartoons</b>	<b>Activities:</b> <ul style="list-style-type: none"> <li>❖ Create portraits of assigned U.S. Presidents.</li> </ul>

	<ul style="list-style-type: none"> <li>❖ Analyze and create political cartoons depicting historical events.</li> </ul>
<b>Week 11-12: Math - Economic Policies</b>	<p>Activities:</p> <ul style="list-style-type: none"> <li>❖ Analyze and present on economic policies implemented by assigned U.S. Presidents.</li> <li>❖ Discuss the mathematical aspects of economic decision-making.</li> </ul>
<b>Week 13-14: Social Studies - Historical Impact</b>	<p>Activities:</p> <ul style="list-style-type: none"> <li>❖ Explore and present on the historical context and societal impact of assigned U.S. Presidents.</li> </ul>

<b>Resource Needs</b>
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<b>1. Planning and Research:</b>	<ul style="list-style-type: none"> <li>❖ Materials:</li> <li>❖ Technology:</li> <li>❖ Experts/Community Resources:</li> </ul>
<b>2. Science Component:</b>	<ul style="list-style-type: none"> <li>❖ Lab Equipment:</li> <li>❖ Materials:</li> <li>❖ Technology:</li> </ul>
<b>3. Technology Integration:</b>	<ul style="list-style-type: none"> <li>❖ Devices:</li> <li>❖ Software:</li> <li>❖ Technical Support:</li> </ul>
<b>4. Engineering Design and Prototyping:</b>	<ul style="list-style-type: none"> <li>❖ Materials:</li> <li>❖ Tools:</li> <li>❖ Technology:</li> </ul>
<b>5. Arts and Design Elements:</b>	<ul style="list-style-type: none"> <li>❖ Art Supplies:</li> <li>❖ Multimedia Tools:</li> <li>❖ Technology:</li> </ul>
<b>6. Mathematical Calculations:</b>	<ul style="list-style-type: none"> <li>❖ Calculators:</li> <li>❖ Tools:</li> <li>❖ Technology:</li> </ul>
<b>7. Social Studies Connection:</b>	<ul style="list-style-type: none"> <li>❖ Reference Materials:</li> <li>❖ Guest Speakers:</li> <li>❖ Field Trip:</li> </ul>

## Assessment Criteria

<b>Science:</b>	Depth of understanding of STEAMS components in relation to U.S. Presidents.
<b>Technology:</b>	Quality of research and presentation skills.
<b>Engineering:</b>	Creativity and effectiveness in the design of the presidential monument.
<b>Arts:</b>	Artistic expression in portrait creation and political cartoons.
<b>Math:</b>	Accuracy and insight in analyzing economic policies.
<b>Social Studies:</b>	Understanding of historical context and societal impact.

## Presentation

<b>Group Reflection Activity:</b>	Students present their findings, designs, and creations to the class. This project provides a holistic understanding of the presidency and enhances students' abilities to connect historical, scientific, technological, engineering, artistic, mathematical, and social studies concepts.
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