

STEAMS Memorial Day Project-Based Lesson Plan (7-12)

Objective: This interdisciplinary lesson plan aims to explore the mental effects of war on veterans and affected civilians, examine literature addressing war, and evaluate the inequities among veterans through a STEAMS (Science, Technology, Engineering, Arts, Mathematics, and Social Studies) approach. Students will engage in comprehensive, hands-on projects to foster understanding, empathy, and critical thinking regarding the complexities of war and its societal impact. Suitable for grades 7-12, this lesson plan honors Memorial Day and promotes awareness and advocacy for veterans' issues.

Key Components

Science (S): Psychological and Physiological Effects of War

- ❖ Topics:
 1. Mental health effects of war on veterans and civilians.
 2. Physiological impacts of stress and trauma inflicted by war.
- ❖ Project:
 1. Create research reports on the mental health disorders commonly experienced by veterans, such as PTSD, depression, and anxiety. Focus on the body's response to stress and trauma.
 2. Conduct an experiment to understand the impact of stress on physical health, such as monitoring heart rate variability before and after a stress-inducing activity.

<p>Technology (T): Technological Innovations in Veteran Care</p>	<ul style="list-style-type: none"> ❖ Topics: <ol style="list-style-type: none"> 1. Advances in medical technology for treating war-related injuries and mental health issues. 2. Technological tools for improving veterans' quality of life. ❖ Project: <ol style="list-style-type: none"> 1. Create a research report that examines the technological innovations in prosthetics, mental health apps, and telemedicine. 2. Design a prototype technological solution aimed at improving veterans' mental or physical health, such as a stress-relief app or a physical product.
<p>Engineering (E): Engineering Solutions for Veterans' Needs</p>	<ul style="list-style-type: none"> ❖ Topics: <ol style="list-style-type: none"> 1. Engineering challenges in providing infrastructure and accessibility for veterans. 2. Adaptive technologies for injured veterans. ❖ Project: <ol style="list-style-type: none"> 1. Create a report that studies the design and implementation of adaptive technologies and accessible infrastructure.
<p>Arts (A): Literary and Artistic Representations of Peace and War</p>	<ul style="list-style-type: none"> ❖ Topics: <ol style="list-style-type: none"> 1. Artistic expressions addressing the themes of peace and war. ❖ Project: <ol style="list-style-type: none"> 1. Create an analysis of works including literature, visual arts, music, and theater that explore the impact of war and advocacy for peace. 2. Create an original artwork, performance, or literary piece inspired by the themes of war and peace, reflecting the insights gained from the literature and artistic works studied.

<p>Math (M): Statistical Analysis of Veteran</p>	<ul style="list-style-type: none"> ❖ Topics: <ol style="list-style-type: none"> 1. Analysis of data on veteran mental health, homelessness, homeownership and unemployment. 2. Mathematical modeling of the social and economic impacts of war. ❖ Project: <ol style="list-style-type: none"> 1. Collect and analyze statistical data on topics concerning veterans, such as PTSD prevalence, homelessness rates, homeownership, and employment statistics. 2. Develop mathematical models or create graphs and charts to illustrate the inequities faced by veterans and marginalized groups within the veteran community.
<p>Social Studies (SS): Historical and Social Context of Veterans' Issues</p>	<ul style="list-style-type: none"> ❖ Topics: <ol style="list-style-type: none"> 1. History of Memorial Day and its significance. 2. Social and economic inequities among veterans, including gender, race, and socioeconomic status. ❖ Project: <ol style="list-style-type: none"> 1. Create a presentation or exhibit that highlights significant figures, events, and issues in veterans' history and the ongoing challenges they face. 2. Study the social and economic inequities faced by veterans from different backgrounds. If possible, conduct interviews with veterans or community leaders and include these perspectives in the presentation.

Assessment Criteria

By the end of this lesson plan, students will demonstrate a comprehensive understanding of the mental effects of war, literature addressing war, and inequities among veterans through interdisciplinary STEAMS projects. This STEAMS Memorial Day Project-Based Lesson Plan aims to honor veterans, raise awareness about their struggles, and promote peace and equity, fostering empathy, understanding, and advocacy among students.