

World AIDS Day Project-Based Lesson Plan (Grades 7-12)

Objective: The objective of this interdisciplinary lesson plan is to raise awareness about HIV/AIDS, its impact on individuals and communities, and the importance of education, prevention, and advocacy. Through a STEAMS approach, students will explore the science of HIV/AIDS, technological advancements in treatment and prevention, engineering solutions for healthcare access, artistic expressions to reduce stigma, mathematical analysis of public health data, and social studies perspectives on healthcare inequality and human rights.

By the end of the project, students will implement community-based initiatives to promote awareness and advocacy around HIV/AIDS.

Key Components

Science (S): The Biology of HIV/AIDS	<ul style="list-style-type: none">❖ Activity: Explore the biology of HIV, including how the virus attacks the immune system, the difference between HIV and AIDS, and the role of antiretroviral therapy (ART) in managing the disease.❖ Project: Create an educational pamphlet or infographic explaining how HIV affects the immune system.
Technology (T): Evolution of Technology in Communication	<ul style="list-style-type: none">❖ Activity: Study key milestones in the evolution of technology, including the rise of social media, cloud computing, and AI-driven communication tools.❖ Project: Create an interactive infographic that illustrates how technological advancements have shaped global communication.

Engineering (E): Sustainability in Computing	<ul style="list-style-type: none"> ❖ Activity: Study key technological advancements in HIV treatment, such as antiretroviral therapy, rapid testing, and mobile health applications for tracking medication adherence. ❖ Project: Develop a mock-up or prototype of a mobile app designed to help individuals manage their HIV treatment, track appointments, or access educational resources.
Arts (A): Reducing Stigma Through Creative Expression	<ul style="list-style-type: none"> ❖ Activity: Analyze the role of art in changing public perceptions and reducing stigma associated with HIV/AIDS. ❖ Project: Create a multimedia awareness campaign, such as a short video, poster series, or social media graphics, aimed at reducing stigma and promoting empathy and understanding.
Math (M): Algorithms and Data Analysis	<ul style="list-style-type: none"> ❖ Activity: Learn how algorithms drive search engines, social media feeds, and digital tools. ❖ Project: Analyze data from a community survey on digital literacy or access to technology. Use statistical methods to identify trends and gaps.

Social Studies (SS): The Digital Divide and Marginalized Communities	<ul style="list-style-type: none">❖ Activity: Investigate how the digital divide affects access to technology and opportunities for marginalized communities.❖ Project: Develop an advocacy plan to promote equitable access to technology, including recommendations for digital literacy workshops.
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Assessment Criteria

<p>By the end of this lesson plan, students will demonstrate a comprehensive understanding of the role of HIV/AIDS awareness in addressing global health challenges, reducing stigma, and promoting equitable access to healthcare. Assessment will be based on project completion, research quality, critical analysis, creativity, and community impact.</p> <p>This lesson plan empowers students to appreciate the cultural, scientific, and societal significance of World AIDS Day, develop strategies for health advocacy, and foster critical thinking and creativity to contribute meaningfully to a healthier, more inclusive world.</p>
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