STEAMS Project-Based Lesson Plan (Grades 7-12)

Objective: The objective of this interdisciplinary project-based lesson is to explore the historical, religious, and societal impact of Pope John Paul II, one of the most influential religious leaders of the 20th century. Through a STEAMS (Science, Technology, Engineering, Arts, Mathematics, and Social Studies) approach, students will gain a comprehensive understanding of his role in shaping religious, social, and political landscapes worldwide.

Key Components

Science (S): The Role of Science in Pope John Paul II's Papacy

- ❖ Topic:
 - Explore Pope John Paul II's support for science, especially his recognition of the theory of evolution and his engagement with scientific discoveries.
- Projects:

Science and Religion: Investigate how Pope John Paul II encouraged dialogue between science and religion, especially his views on evolution and bioethics. Compare these views to other papal positions on science.

Scientific Issues: Create a presentation on how Pope John Paul II addressed scientific issues during his papacy, including topics like stem cell research and environmental protection.

Technology (T): Media and Global Communication in Pope John Paul II's Time	 Topic: Examine how Pope John Paul II utilized modern media to spread his messages to a global audience. Projects:
Engineering (E): The Vatican and Architectural Innovation	 Topic: Explore the engineering and architectural innovations related to the Vatican during Pope John Paul II's papacy. Projects: Blueprint Design: Research and design a blueprint for a modern addition to Vatican City that emphasizes sustainable architecture and accessibility for global visitors. Model Construction: Build a 3D model of a section of Vatican City, incorporating engineering principles that reflect the values Pope John Paul II emphasized, such as openness, peace,

and accessibility.

Arts (A): Visual and Literary Representation of Pope John Paul II	 Topic: Analyze how Pope John Paul II was represented in visual and literary arts throughout his lifetime. Projects: Art Project: Create a visual representation (painting, digital art, or sculpture) that captures key themes of Pope John Paul II's papacy, such as his emphasis on human rights, peace, and religious unity.
Math (M): Analyzing Pilgrimage and Population Data	 Topic: Use mathematical models to analyze data related to the global Catholic population during Pope John Paul II's papacy and the number of pilgrims he attracted to various global events. Projects: Graphing Project: Plot the growth of the Catholic Church's global population during Pope John Paul II's papacy. Use data visualization tools to show how his travels and outreach impacted church membership.

Social Studies (SS): The Historical and Political Impact of Pope John Paul II

❖ Topic:

Explore Pope John Paul II's role in key historical events, including his influence on the fall of communism in Eastern Europe and his promotion of peace and human rights globally.

Projects:

Historical Timeline: Create a detailed timeline of Pope John Paul II's major political interventions, including his support for the Solidarity movement in Poland, his opposition to communism, and his advocacy for peace in global conflicts.

Global Impact Presentation: Research and develop a panel discussion on how Pope John Paul II influenced global politics, particularly in Eastern Europe, and how his efforts contributed to the end of the Cold War.

Assessment Criteria

This lesson will be assessed using the 8-Step PBLP Framework, guiding students through an interdisciplinary reflection on Pope John Paul II's legacy. Students will begin with a Round Table discussion on his influence on religion and global politics, engage in Knowledge Setting by researching each STEAMS topic, and develop individual or group projects. Their work will include Community Involvement with peers and gathering feedback via a Feedback Loop. Students will showcase their final projects that combine all STEAMS components and integrate their research into their Resume Integration for future educational or professional use.