STEAMS Fatima al-Fihri Project-Based Lesson Plan (K-12)

Objective: The primary objective of this lesson plan is to immerse students in an interdisciplinary exploration of Fatima al-Fihri's life and her contributions to education and Islamic culture, fostering historical awareness, critical thinking skills, and an appreciation for women's achievements. By integrating STEAMS components, students will delve into various aspects of Fatima al-Fihri's story, including science, technology, engineering, arts, mathematics, and social studies.

Key Components

Science (S):	Topics: ❖ Investigate the scientific advancements during Fatima al-Fihri's time, particularly in the fields of astronomy, mathematics, and medicine. ❖ Explore the impact of Islamic scholars and institutions on the preservation and advancement of scientific knowledge during the Islamic Golden Age.
Technology (T):	Topics: ❖ Utilize digital tools to research Fatima al-Fihri's biography, the founding of the University of Al Quaraouiyine, and the role of education in Islamic civilization. ❖ Create digital presentations or multimedia projects to showcase key aspects of Fatima al-Fihri's life and her contributions to education and scholarship.
Engineering (E):	Topics:

	❖ Engage in an engineering design challenge inspired by the architectural achievements of Islamic civilization. ❖ Design and build models or structures representing Islamic architectural features, such as domes, arches, or minarets, inspired by the buildings associated with the University of Al Quaraouiyine.
Arts (A):	Topics: ❖ Explore the artistic and cultural achievements of Islamic civilization, including calligraphy, geometric patterns, and decorative arts. ❖ Create original artwork inspired by Islamic motifs and designs, incorporating elements of calligraphy and geometric patterns.
Math (M):	Topics: ❖ Apply mathematical concepts to analyze geometric patterns and mathematical principles evident in Islamic art and architecture. ❖ Explore mathematical puzzles or challenges inspired by Islamic scholars' contributions to algebra, geometry, and arithmetic.
Social Studies (SS):	Topics: ❖ Delve into the social and historical context of Fatima al-Fihri's life and the founding of the University of Al Quaraouiyine. ❖ Discuss the role of education in Islamic civilization and its impact on the spread of knowledge, cultural exchange, and intellectual development.

Project Phases and Timeline:	
Day 1: Science	❖ Introduction to Fatima al-Fihri and the scientific advancements during her time.
Day 2: Technology	❖ Research role of technology in education during the Islamic Golden Age.
Day 3: Engineering	❖ Engage in an engineering design challenge inspired by Islamic architecture.
Day 4: Arts	❖ Explore Islamic art and culture, creating original artwork inspired by Islamic motifs.
Day 5: Math	❖ Analyze geometric patterns and mathematical principles evident in Islamic art and architecture.
Day 6: Social Studies	❖ Discuss the social and historical context of Fatima al-Fihri's life and the role of education in Islamic civilization.

Assessment Criteria
Students will be assessed based on their participation in discussions, completion of assignments and projects, creativity in design challenges and artwork, and understanding of Fatima al-Fihri's life and her contributions to education and Islamic culture.