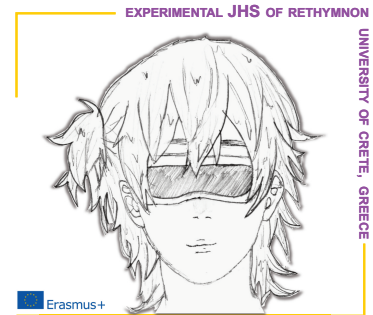


AR/VR Lesson Plan:

"Medieval Islamic Religious Art " (2026)



VR & AR
CLASSROOM TRANSFORMERS

2024-1-FR-KA220-SCH-000245724

- **Teacher Name:** Eirini RENIERI
- **Date:** 24, 27 / 02 / 2026
- **Subject / Topic:** Medieval History
- **Grade Level / Age Group:** Middle School (Ages 12–15)
- **Class Duration:** 3 teaching hours (135 minutes)
- **Location/Settings:** Classroom

1. Abstract

This lesson plan introduces students to Medieval Islamic religious art, which flourished from the 8th to the 13th centuries. Emerging from diverse cultural roots, this art blended influences to create distinct Islamic forms. A general prohibition on figurative representations encouraged the development of alternative visual expressions, such as calligraphy, geometric patterns, stylized plant motifs and arabesques.

The lesson aims to give students a well-informed perspective on this facet of the Islamic world, especially relevant in today's globalized societies with substantial Muslim migration to Europe. It seeks to challenge stereotypes, promote intercultural understanding, and foster an appreciation of Muslim artistic traditions.

Additionally, the lesson strengthens students' abilities to work with images through activities like describing, discussing, commenting, collaborative group work, and hands-on creation using **3D Pen**.

The unit is interdisciplinary and can be taught in History, Geography and Art classes.

2. Learning Objectives

By the end of this lesson, students will be able to:

- **Know (Knowledge):**
 - Explain how Medieval Islamic art reflects and supports religious beliefs and practices.
 - Compare architectural and decorative elements of Islamic and Christian art.
- **Do (skills):**
 - Create a calligraphic composition using Arabic letters and a geometrical "tile" pattern inspired by Islamic art, using a 3D Pen. Apply artistic sensibility, imagination, and practical tool skills
- **Feel (Attitudes or engagement):**
 - Experience the historical period by role-playing as a medieval craftsman working with his team to decorate a mosque.
 - Recognize how creating 3D models can deepen their learning of the subject.

3. Materials & Tools

- **AR/VR Tools:** 3D Printing Pen
- **Devices required:** Cell phones, computers or tablets
- **Creative Materials:** Markers, paper, plastic filament/fibers in assorted colours
- **3D Pen Tutorials:** e.g.: <https://www.youtube.com/watch?v=OFa-2TFfnqw>
- **Internet connection:** Required for tutorials and research

- **Worksheets / Follow up tasks:** theoretical worksheet covering key concepts and vocabulary, group critical-thinking activities (comparisons, source analysis, discussion prompts), creative activities, reflection and evaluation worksheet with guiding questions and assessment criteria.

4. Preparation & Setup

- Upload the worksheet to the e-class (electronic classroom) platform
- Test 3D Pen's and devices to ensure they are charged, functional, and ready to use
- Arrange seating and equipment to ensure safe and productive workspaces for students
- Organize the classroom into small working groups and assign group workstations and roles as needed

5. Lesson Procedure

Phases	Time	Description
Phase 1:	45 min	<p>-Introduction (whole class)</p> <p>Present key features of Medieval Islamic art, focusing on the main aspects that students will research (see 1. Abstract)</p> <p>- Teamwork Activity</p> <p>Divide students into five groups. Assign each group one of the five critical-thinking task from the worksheet. Teacher circulates, supervises, and supports groups as needed.</p>
Phase 2:	35 min	<p>-Peer Teaching</p> <p>Reorganize students into new groups so each new group includes members who worked on different activities. Each student explains</p>

		<p>the topic their first group tackled and summarizes the group's conclusions.</p> <p>Teacher supervises and assists as necessary.</p>
	10 min	<p>-Follow-up task</p> <p>Students complete a crossword with questions related to what they learned about Medieval Islamic art.</p>
Phase 3:	30 min	<p>-Guided Creative Activity</p> <p>In groups, students work to create: A calligraphic pattern using Arabic letterforms made with a 3D Pen and a geometric pattern "tile") drawn with markers.</p> <p>The students' work becomes the lesson's final product (photo 4), echoing the collaborative craftsmanship of medieval workshops.</p>
	10 min	<p>- Discussion / Reflection</p> <p>Students present their final product and explain:</p> <ul style="list-style-type: none"> • what are the main characteristics of Islamic decorative religious art • how the plasticity of Arabic letters support their decorative function • to what extent did hands-on deepen the understanding of medieval Islamic art.

6. Assessment

- **Formative:** Observation during group work, participation in whole-class and small group discussion.
- **Summative:**
 - 3D artefacts created with 3D Pen

- Oral presentation of group findings and final products
 - Completed worksheet activities, including the crossword puzzle
 - Digital questionnaire for assessing creative activities
-

7. Safety & Management Considerations

- Provide clear instructions for the safe handling of 3D pens (e.g. heat precautions and surface protection)
 - Ensure continuous supervision while tools are in use
 - Maintain an organized workspace to avoid accidents
 - Offer adaptations for students who may not feel comfortable using the tools (e.g. allowing in them to participate in activities that requires only markers)
-

8. Reflection

(Post-lesson notes, creative activity only)

1. How did the 3D Pen activity go?

The majority of students showed great enthusiasm for the activity. They paid particular attention to how they needed to form the words in order to follow the Arabic script.

2. Challenges:

Students required support in using 3D pens and in managing their time effectively to complete the task. The teacher should have provided clearer initial guidance on how to use the 3D Pen

3. Student Responses:

Positive – students enjoyed combining art, history, and technology in a creative way. They were also given an online questionnaire to capture their opinions in as much detail as possible.

9. Students' Selected Artefacts



Final product

10. Adaption of the Practice for Other Countries in the Erasmus+ Program

Any historical mosque can be selected, particularly those included in the UNESCO World Heritage Convention¹. Both older and more recent mosques can be found in the countries participating in this Erasmus+ Program². Some feature geometric stone decoration, while others incorporate wood or ceramic tiles. In many cases, decoration also includes calligraphic inscriptions. Furthermore, this activity can be adapted and extended to other subjects.



France – Martinique (Social Studies / History)

- Topic Suggestion: The political and philosophical thought of Aimé Fernand David Césaire and Franz Fanon
- Educational Use: Students recreate portraits of these two Martinican intellectuals using 3D Pen. They display their work on a permanent board, accompanied by written comments on their lives and political legacy.



Curaçao – Kingdom of the Netherlands (Art / Culture)

- Topic Suggestion: Masks of African origin at the Kura Hulanda Museum (Curaçao).
- Educational Use: Students recreate African masks from the museum using a 3D Pen. They compare different forms, colours and symbols, highlighting the mask's social and ritual significance.



Portugal – Madeira (Art / History / Religion)

- Topic Suggestion: Mesquita Al-Tawbah (Primeira Mesquita da Madeira) and/or Lisbon Central Mosque
- Educational Use: Students research the history and decorative elements of these mosques. They design selected elements using a 3D Pen and compare similarities and differences in their architectural decoration.

¹ <https://whc.unesco.org/>

² Centre Culturel Islamique de la Martinique / Omar Bin Al-Khattab Mosque (Curaçao Islamic Centre)



Romania (Art / History / Religion)

- Topic Suggestion: Esmahan Sultan Mosque and/or The Grand Mosque of Constanța
- Educational Use: Students research the history and decorative elements of these mosques. They design selected elements using a 3D Pen and compare similarities and differences in their architectural decoration.

WORKSHEET

« Islamic religious art at its finest! »

Source 3.1 [Islamic culture]

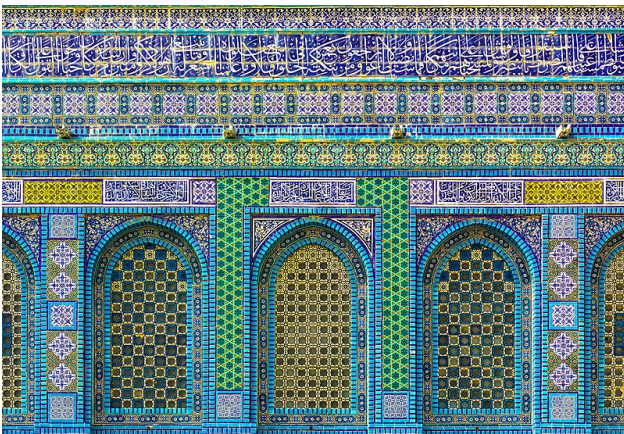
During the period of greatness of the Arab and Islamic Empires in the Near and Middle East a flourishing civilization grew up, that is usually known as Arabic. It was not brought ready-made by the Arab invaders from the desert, but was created after the conquests by the collaboration of many peoples, Arabs, Persians, Egyptians, and others. Nor was it even purely Muslim, for many Christians, Jews, and Zoroastrians were among its creators. But its chief medium of expression was Arabic, and it was dominated by Islam and its outlook of life. It was these two things, their language and their religion, which were the great contribution of the Arab invaders to the new and original civilisation which developed under their aegis.

Bernard Lewis, *The Arabs in History*, 1954, p. 131

Source 3.2a



Dome of the Rock, (Jerusalem, Israel) 7th century.
Directly below, detail of the facade, decorated with ceramic tiles.



Source 3.2b



Shah Mosque, Isfahan (Iran), 17th century. Decoration with ceramic tiles. Directly below, detail.



Source 3.2c



The Great Mosque of Damascus (Syria), early 8th century. In the image, the courtyard leading to the prayer hall. Decorated with mosaics. Next to the right, detail of mosaics.



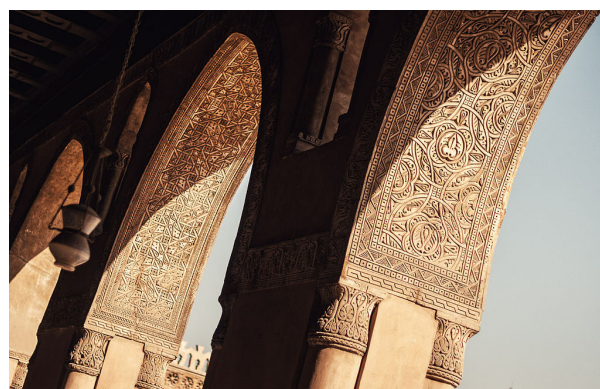
Source 3.2d



Great Mosque of Cordoba (Spain), late 8th–9th century. On the right, the dome decorated with mosaics. Directly below is the prayer hall.



Source 3.2e



Source 3.2e
Mosque of Ahmed ibn Tulun, (Cairo, Egypt), late 9th century. Bottom right, detail from the sculpted decoration of the arches (arabesques).

Source 3.3
[non-figurative art]

The representation of animate forms is a subject that has preoccupied many monotheistic religions. Non-figurative decoration can be found in Judaism, among Orthodox Christians during the Iconoclastic period, and later in Protestant churches. Islam prohibits the representation of living beings (humans, animals) in sacred spaces. However, in private spaces (palaces, mansions, baths), this does not apply, and so we find a plethora of forms, real and imaginary, on all kinds of surfaces: ceramics, books, fabrics, metal objects.

Christiane Gruber (Professor of Islamic Art, University of Michigan)

In Islam, the prohibition on depicting living beings applies strictly to mosques and other religious institutions. This is due to early Islam's hostile attitude towards idolatry and its belief that no intermediaries are needed to convey God's grace (e.g. saints). Islam strictly supports the existence of a single, non-iconic God.

Anna Ballian, "Introductory note on Islamic art," 2006

Source 3.4
[patterns, geometric and floral]

Geometry, which means "the measurement of the earth," has always played an essential role in Islamic art. The geometric pattern, as it repeats itself, reminds us of infinity, the celestial dome, our place in the vast and interconnected web of the world, which transcends us as individuals. It is the visual expression of the order and harmony inherent in the world. Ceramic tiles occupy a special place in geometric decoration, creating a complex and impressive composition in the decoration of both religious and secular buildings.

Alhambra and Granada Monuments Protection and Management Foundation

In particular, the pattern is not geometric but a stylized floral decorative element, which is repeated endlessly – just as shoots, leaves or semi-leaves intertwine, branch out or twist rhythmically and symmetrically, covering the entire surface in a way that does not correspond to anything that exists in nature – is known as arabesque.

Anna Ballian, "Introductory note on Islamic art," 2006

Source 3.5
[Calligraphy]

Calligraphy is an art form that is considered sacred in the Islamic world. This is because it is linked to the Koran, the holy book of Islam: according to the Islamic religion, the text of the Koran is literally the word of God, as revealed in Arabic by the archangel Gabriel to the prophet Muhammad. Calligraphy was a

religious process, during which the calligrapher approached

God by reproducing his word. Part of the decoration of a mosque consisted of phrases from the Koran, designed in calligraphy. Although calligraphy developed in Europe and can be found in many medieval manuscripts, other art forms, such as painting and sculpture, dominate European artistic expression.



Lion designed with Arabic letters, by Ottoman calligrapher Ahmad Hilmi (1913)

In contrast, for Muslims, calligraphy is considered the most admirable art form. In fact, thanks to the

inherent possibilities of the Arabic alphabet, artists could design an entire word or letter in such a way that it appeared as a decorative motif (see image). Examples of high-quality calligraphy have been found from Spain and North Africa to Iran and India.

Moraitou Mina, *Islamic Calligraphy*, 2018

Source 3.6
[the mosaics in the Great Mosque of Damascus]

A Muslim geographer from Jerusalem who lived at the end of the 10th century, Al-Muquaddasi writes that the Byzantine emperor helped build the Great Mosque of Damascus by sending mosaic tiles as a gift for its construction. writes that the Byzantine emperor helped build the Great Mosque of Damascus by sending mosaic tiles as a gift for the construction of the mosaics. Around the middle of the 12th century—more than 400 years after the mosque was built—Ibn Asakir, a chronicler from Damascus, became the first to mention that craftsmen were sent to Damascus from Constantinople after threats from Caliph Al-Walid to the Byzantine emperor.

van Lohuizen-Mulder Mab, “The Mosaics in the Great Mosque at Damascus: A Vision of Beauty”, 1995

Scholars attributed the creation of the mosque's mosaics to craftsmen from Constantinople. However, recent research has challenged this [...] Historians now believe that the mosaics were created either by local craftsmen or by Egyptian craftsmen, since Egypt had a long tradition of decorating domes with mosaics. Moreover, the region of Syria to which Damascus belongs had been conquered by the Arabs relatively recently. Just a few years earlier, it had been part of the Byzantine Empire and had an abundance of skilled craftsmen who worked on the mosaic floors of the churches there. We can safely assume that technically skilled craftsmen for this enormous project were available in the area.

Hillenbrand Robert, “Reflections on the Mosaics of the Umayyad Mosque in Damascus”, 2012

Note:

You will need to look up details about the mosques in order to complete your assignment. You can find their names on Wikipedia or, better yet, consult the following websites.

For the Shah Mosque (Isfahan, Iran): <https://whc.unesco.org/en/list/115/gallery/&index=1&maxrows=12>

For the Dome of the Rock (Jerusalem, Israel): <https://www.britannica.com/topic/Dome-of-the-Rock>

For the Great Mosque of Damascus (Syria): <https://www.khanacademy.org/humanities/art-islam/chronological-periods-islamic/islamic-art-early/a/the-great-mosque-of-damascus>

About the Mosque of Ahmed ibn Tulun (Cairo): https://en.wikipedia.org/wiki/Mosque_of_Ibn_Tulun

About the Great Mosque of Cordoba (Spain): <https://www.khanacademy.org/humanities/ap-art-history/early-europe-and-colonial-americas/ap-art-islamic-world-medieval/a/the-great-mosque-of-cordoba>

MAP [The Islamic World]



Critical Thinking Activities

1. Carefully observe the photographs and captions accompanying the five mosques in source 3.2 (a-e), which are UNESCO World Heritage Sites. Then, i) Complete the table with the information relating to each mosque [: name of mosque, date of construction, country, city, decoration (ceramic tiles, mosaics, sculpted decoration, stone/clay), does the image resemble Christian churches?], placing them in chronological order (the oldest at the top).

Τζαμί: Όνομασία	χρονολογία κατασκευής	χώρα	πόλη	Διακόσμηση (σημειώστε: ΝΑΙ / ΟΧΙ)				Η εικόνα θυμίζει κάτι από τις βυζαντινές ή δυτικές χριστιανικές εκκλησίες (σημειώστε: ΝΑΙ / ΟΧΙ). Αν ναι, ως προς τι;
				κεραμικά πλακίδια	ψηφιδωτά	γλυπτός διάκοσμος	με πέτρα ή τούβλα	

ii) After studying the testimony of a 10th-century pilgrim about the mosque he visited, which of the mosques in sources 3.2a-3.2e do you think he is referring to?

«The floor is paved with marble. The walls of the mosque are covered with colourful marble, and above that there are mosaics in gold and other colors depicting trees and cities and beautiful inscriptions. Every well-known tree and city can be seen on these walls. »

iii) Identify on the map the cities where the mosques in source 3.2 are located and stick a post-it note on each one with its name and year of construction.

2. Study the completed table in Exercise 1 and look at the mosques again.

i) Can you spot any differences in relation to the decoration of Byzantine churches? Is there anything you don't see in Muslim mosques?

ii) Combine your observations with sources 3.3 and 3.4. Then briefly write down your conclusions.

i) -----

ii) -----

3. Study sources 3.2c and 3.6

i) What question are the two passages in source 3.6 attempting to answer?

ii) Which of the two positions do you find more convincing and why?

i) -----

ii) -----

4. Why do you think the Arabic language has a special significance for Islam? Base your arguments on sources 3.1 and 3.5.

5. Imagine that you are a tourist visiting the prayer hall in the Shah Mosque (source 3.2b). The entire space is decorated with these repeating plant motifs, which you can see in detail.

i) Find three words to describe how you would feel if you stayed in this space for a while. Would your feeling be different if you spent a long time observing the geometric designs on the facade of the Dome of Jerusalem? Or if you were in the prayer hall of the mosque in Cordoba?

ii) Consult source 3.4 to explain how the decoration in the above Muslim mosques promotes the values of Islam.

iii) In 1988, award-winning jewellery designer Elias Lalaounis designed a jewellery collection, which he named after a term related to Islamic art. Looking at the bracelet from this series and reading source 3.4, which term do you think he used for this series?



- i) -----

- ii) -----

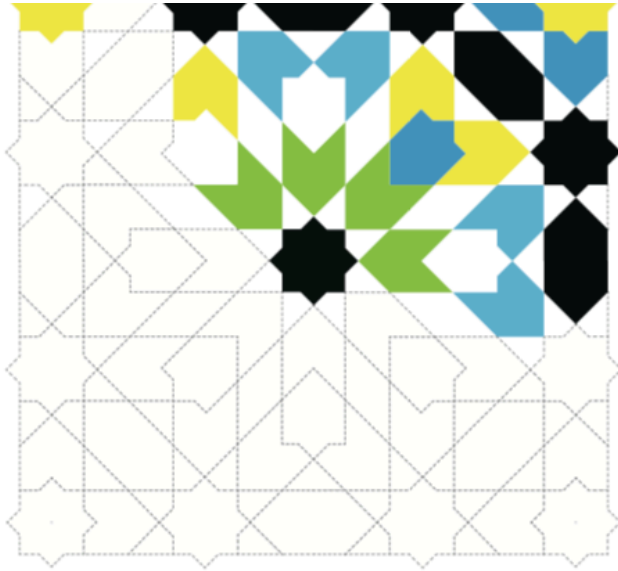
- iii) -----

Creative Activities

How ready are you to decorate a space in Islamic style?

This is the challenge assigned to your team!

You will use two techniques that you have already learned were popular in the medieval Islamic world: **ceramic tiles and calligraphy**.



- a) Your team must submit **two** complete ceramic tiles, ensuring that the **colour palette** (yellow, black, green, light blue) and **colour symmetry** are maintained.

Defective batches will not be accepted!



- b) Your team must submit **an Arabic word** written in **calligraphic style**.

Although medieval craftsmen did not have 3D pens, you are invited to use techniques of the future!

Before you begin, *please note the following*:

The word "peacock" in Arabic is written **طاووس** (pronounced: tausu)

Arabs write (and read) from right to left, so you too must view the written word in this direction (i.e. you start from ط)

- i) Look for the Arabic letters that make up the word "peacock" in the calligraphy on the right. The calligrapher, using the letters in an appropriate way, gave the word the shape of a peacock!
- ii) Using the materials provided (drawing, transparent film, 3D pen), create a 3D calligraphic representation of the word "peacock" in Arabic. Draw from right to left!



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