The Golden Age of Islamic Achievement

a five-part social studies unit for middle school

Created by the Middle East Studies Center at Portland State University

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Lessons:

1. History of the Abbasid and Umayyad Dynasties
2. Geography of Islamic Expansion
3. Cities of Baghdad and Cordoba
4. House of Wisdom—scholarship in the Abbasid Dynasty
5. Scholarship, Art and Architecture in Muslim Spain

Unit goal:

Students will understand the role of Islamic civilization in the medieval world: its geographic and historical context, its achievements, scope and impact.

Curriculum framing questions for the unit:

Lesson 1:
- What events constitute the Abbasid and Umayyad Golden Ages?
- How are events in distant empires related?
- When and how did the empires begin and end?
- What events constitute the Golden Age of Islamic empires?

Lesson 2:
- What was the geographic extent of the dynasties that made up the Islamic Golden Age?
- How were these societies shaped by the physical geography of their empires?

Lesson 3:
- How are events in distant empires related?
- In what ways were the achievements of the Abbasid and Umayyad dynasties similar? In what ways were they different?
- Where did the Golden Age take place and how did geography affect its character?

Lesson 4:
- What was the House of Wisdom and why was it important?
- Why did Caliph al-Ma'mun create the House of Wisdom and why did he choose Baghdad for its location?

Lesson 5:
- What can objects tell us about the people who made them?
- In what ways were the achievements of the Abbasid and Umayyad dynasties similar? In what ways were they different?
- How did the achievements of these dynasties influence the world around them?
Learning objectives for the unit:

Lesson 1:
- Students will be able to construct a proportional, parallel timeline to compare political units.
- Students will be able to identify achievements of the Abbasid and Umayyad Dynasties.

Lesson 2:
- Students will be able to synthesize information from multiple texts and maps to create a single map of the Umayyad and Abbasid dynasties and Muslim Spain.
- Students will be able to describe the extent and physical geography of the medieval Muslim world.

Lesson 3:
- Students will use primary and secondary sources to answer questions about Baghdad and Cordoba and create visual representation of the cities.
- Students will be able to describe the role of cities in a civilization, particularly the way in which agriculture and infrastructure support population growth.

Lesson 4:
- Students will apply knowledge to categorize and evaluate information learned about the House of Wisdom.
- Students will listen to and understand the story, House of Wisdom, by Florence Parry Heide and Judith Heide Gilliland.
- Students will recognize the geographical and historical significance of Baghdad’s location.

Lesson 5:
- Students will be able to describe the physical properties of an object and analyze its role in the culture that created it.
- Students will be able to identify cultural diffusion between the Iberian Peninsula and other parts of the world.

By the end of the unit:
- Students will be able to identify the similarities and differences between the Islamic Empires in Mesopotamia and the Iberian Peninsula.
- Students will be able to describe the impact of ideas spread by these empires.

Curriculum Standards:

Lesson 1:
Oregon Social Studies Standards
OR.SS. 7.5: Create and compare timelines that identify major people and events and developments in the history of civilization and/or countries of Africa, Asia and the Southwest Pacific.

Common Core Standards
6-8.RH.4: Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies
6-8.RH.7: Integrate visual information with other information in print and digital texts
Lesson 2:
Oregon Social Studies Standards
OR.SS.7.8: Use and evaluate maps, graphs, charts, models, and databases to analyze geographic distributions in the Eastern Hemisphere.

Common Core Standards
6-8.RH.7: Integrate visual information with other information in print and digital texts
6-8.RH.8: Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of other while avoiding plagiarism and following a standard format for citation.

Lesson 3:
Oregon Social Studies Standards
OR.SS.7.2: Examine the importance of trade routes and trace the rise of cultural centers and trade cities in Europe, Asia, and Africa.
OR.SS.7.7: Interpret document and data from multiple primary and secondary sources while forming historical questions
OR.SS.7.11: Describe the physical environment of places in the Eastern Hemisphere and how it influences trade, culture, and the economy.

Common Core Standards
6-8.RH.1: Cite specific textual evidence to support analysis of primary and secondary sources
6-8.RH.2: Determine the central ideas or information of a primary or secondary source: provide an accurate summary of the source distinct from prior knowledge or opinion

Lesson 4:
Oregon Social Studies Standards
OR.SS.6.3. Describe the rise; the political, technological, and cultural achievements; and the decline of ancient civilizations in Europe, Asia, and Africa prior to the Roman Empire.
OR.SS.7.2. Examine the importance of trade routes and trace the rise of cultural centers and trade cities in Europe, Asia, and Africa.
OR.SS.7.6. Form historical questions and use a variety of information resources to find, summarize and evaluate historical data on the people places, events and developments that have played a part in the history of Africa, Asia and the Southwest Pacific.
OR.SS.7.15. Determine and explain the interdependence of people around the world during significant eras or events.

Common Core Standards
6-8.RH.4. Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.
6-8.RH.5. Describe how a text presents information (e.g., sequentially, comparatively, causally).
6-8.RH.6. Identify aspects of a text that reveal an author’s point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts).

Lesson 5:
Oregon Social Studies Standards
OR.SS.7.7. Interpret documents and data from multiple primary and secondary sources (e.g., art, artifacts, eyewitness accounts, letters and diaries, real
OR.SS.7.24. Analyze current and historical sources (e.g., artifacts, eyewitness accounts, letters and diaries, real or simulated historical sites, charts, graphs, diagrams, and written texts) for accuracy and point of view while forming questions.

Common Core Standards
6-8.RH.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.
6-8.RH.9 Analyze the relationship between a primary and secondary source on the same topic.
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<thead>
<tr>
<th>Lesson Title</th>
<th>Lesson 1: History of the Abbasid and Umayyad Dynasties</th>
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</thead>
<tbody>
<tr>
<td>Background Information</td>
<td>This lesson begins a 5-day unit on achievements of the Islamic Golden Age. Students begin with a historical overview to learn the context and sequence of events that follow.</td>
</tr>
<tr>
<td>Time</td>
<td>50 minutes</td>
</tr>
<tr>
<td>Purpose/Rationale for Lesson</td>
<td>Students need a framework for understanding the content on days 2-5. In this lesson, students will create a parallel timeline on which they can place political and cultural events that define Islam’s foundational dynasties. The timeline can be used on successive days as context for Abbasid and Spanish achievements.</td>
</tr>
<tr>
<td>Curriculum Framing Questions</td>
<td>What events constitute the Abbasid and Umayyad Golden Ages? How are events in distant empires related? When and how did the empires begin and end? What events constitute the Golden Age of Islamic empires?</td>
</tr>
<tr>
<td>Goal</td>
<td>Students will understand the historic and cultural connections between Muslim empires in Spain and the Middle East.</td>
</tr>
<tr>
<td>Learning Objectives</td>
<td>Students will be able to construct a proportional, parallel timeline to compare political units. Students will be able to identify achievements of the Abbasid and Umayyad Dynasties.</td>
</tr>
<tr>
<td>Curriculum Standards</td>
<td>See unit overview.</td>
</tr>
<tr>
<td>Implementation</td>
<td>1) Explain that for nearly a century, the Muslim world was ruled by a single dynasty, the Umayyad. Give students the one-page reading on the Umayyad Dynasty with dates in bold. Explain vocabulary if needed, then ask students to list important dates in chronological order and to write a short description of events next to each date. Students will place these and other dates on a parallel timeline so they can visualize the sequence of events in the Islamic Golden Age. 2) Hand out large sheets of paper (11 x 17) for making a timeline. On the board, model the design and measurements for the timeline. (see example after Umayyad Dynasty reading) 3) Students will make a timeline covering three periods: the Umayyad dynasty about which they just read, and the two empires it gave rise to: the Abbasid Empire and Muslim Spain. With a total time period of about 800 years, students can allot two inches to each century. However, the Abbasid and Spanish lines should be parallel to each</td>
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</tbody>
</table>

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Lesson 1: History of the Abbasid and Umayyad Dynasties
<table>
<thead>
<tr>
<th>Materials needed for homework:</th>
<th>other.</th>
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</thead>
<tbody>
<tr>
<td>• Abbasid/ Muslim Spain reading</td>
<td>4) Work together to add the Umayyad dates to their timeline, taking care to keep events in a small space. They may write above and below the line, but should be careful to place the dates proportionally in the short space. The biggest challenge for students will be writing short captions which will fit in the 2-inch space. Students will have more room for the next two dynasties.</td>
</tr>
<tr>
<td>• Timelines</td>
<td>Homework: Give students back-to-back readings on the Abbasid Empire and Muslim Spain. They should place dates on the appropriate timeline. At the latest, students should complete the Abbasid timeline by day 4 &amp; the Spanish timeline by day 5.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Assessment &amp; Evaluation of Student Learning</th>
<th>Student timeline should be neatly drawn.</th>
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<tbody>
<tr>
<td></td>
<td>Space for centuries should be proportional and equivalent on each timeline.</td>
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<tr>
<td></td>
<td>Concurrent events in different empires should be on the same vertical plane.</td>
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<tr>
<td></td>
<td>All listed events should appear in the correct location on the timeline.</td>
</tr>
</tbody>
</table>
Umayyad Dynasty (661-750)

After the assassination of Mohammed’s son-in-law and cousin, Ali, a group called the Umayyads came to power and chose Mu’awiya as the fifth caliph. Mu’awiya ruled in a time when Muslim factions fought about the nature of their government, and how religious or secular it should be. Mu’awiya emphasized the latter, moved his capital to Damascus in 661 and began to reform the new empire’s administration. Mu'awiya modeled his government’s organization on that of the Byzantine Empire, which had recently ruled the region, even going so far as to hire Christian administrators. Mu’awiya further changed traditional Muslim governance by identifying his son, Yazid, as his successor, instead of leaving that decision up to the respected elders of the community. The Umayyads were therefore the first dynasty to rule an Islamic empire.

Yazid only ruled for a short time, but is infamous for challenging Ali’s son, Hussein. Hussein, as the prophet Mohammed’s grandson, represented a symbolic link to the prophet and the fourth caliph, whom Mu’awiya had overthrown. As Hussein traveled with his family and entourage toward the Iraqi city of Kufa, Yazid’s troops stopped the travelers and demanded that Hussein take an oath of loyalty to Yazid and the Umayyad Dynasty. When Hussein refused to submit, Yazid’s general ordered his soldiers to attack, slaughtering women and children as well as Hussein. The massacre at Karbala in 680 is still mourned annually by Shi’a Muslims, descended from those who felt the caliphate should have passed through the Prophet’s bloodline to Hussein and his descendents.

Yazid’s son, and the greatest of the eastern Umayyad rulers, was Abd al-Malik, who reigned for 20 years and transformed Muslim lands into a unified empire. Abd al-Malik spread his grandfather’s administrative reforms across North Africa and Persia, made Arabic the common language, constructed mosques in all new lands, and perhaps most importantly, unified the coinage of the empire in 696. By standardizing financial weights and measures, Abd al-Malik ensured that trade would flow smoothly across his vast lands. Abd al-Malik made another significant change when he ended the practice of featuring the ruler’s image on coins, and instead used only text, notably verses from the Qu’ran. Also during his reign, the Dome of the Rock, with its distinctive golden dome and beautiful calligraphy, was constructed in Jerusalem by 691.

Abd al-Malik’s heirs completed the expansion of the Umayyad dynasty, extending its borders from the Iberian Peninsula in the west to the Indus River in the east a distance of nearly 6,000 miles. The Umayyad expansion into Europe was stopped in the west by Charles Martel and his Frankish forces at the Battle of Tours in 732. Umayyad dominance in the east was challenged by a rising faction, the Abbasids, who joined others opposing the empire’s secular emphasis. The Abbasids brought down the Umayyads in 750 and sought to kill as many Umayyad family members as possible to avoid its later resurgence. One famous Umayyad who escaped was Abd al-Rahman. He fled westward, finally making it to his family’s distant territory in Spain, where he established a western Umayyad dynasty that lasted another three hundred years.
Golden Age of Islamic Achievement
Lesson 1: History of the Abbasid and Umayyad Dynasties
Abbasid-Seljuq Empire (750-1258)

In the 740s, a Persian-Arab coalition from Khorasan, in eastern Iran, challenged the Umayyad dynasty and by 750, seized power over Muslim lands. The Umayyads had been based in Syria and were influenced by its Byzantine architecture and administration. In contrast, the Abbasids moved the capital to Baghdad in 762 and, although the leaders were Arab, administrators and cultural influence were primarily Persian.

This eastward shift allowed some independent dynasties to form in the west, such as the Spanish Umayyad and later the Egyptian Fatimids. Abbasid expansion to the east also brought them in conflict with the Chinese at the Battle of Talas in 751. The Muslim army was victorious, and through Chinese captives, learned about paper, which would replace papyrus and parchment, making Abbasid intellectual achievements easier to spread.

The 9th and 10th centuries under Abbasid rule were a golden age of Muslim achievement. In the recently built capital of Baghdad, the caliphs founded centers of study, including the Beyt al-Hikma, or House of Wisdom. Most historians attribute this to Al-Ma’mun, who reigned from 813-33, but some give credit to earlier caliphs. By the mid-800s, brilliant Muslim scholars—many Persian, but also Arab, Indian and Egyptian—shared their knowledge and writings in Baghdad. Al Khwarizmi (d. 850) adapted Hindu numerals and developed the numbering system we use today. He is considered the father of algebra. His works were translated into Latin in the 12th century and formed the basis of western mathematics. Scholars translated ancient Persian, Hindu and Greek texts into Arabic and then spread that knowledge across the vast Muslim lands, as far west as Spain, where they were translated into Latin. These texts helped Europeans become acquainted with the Greek thinkers, such as Aristotle.

The Abbasid dynasty depended on regional governors for military control and the collection of taxes. By the 11th century, this decentralized system proved too weak to defend against nomadic tribesmen from the east. In 1055, Seljuq Turkmen who had gradually moved into Abbasid territory, took control of Baghdad. Their leader, Tugrul Bey, forced the Abbasid caliph to name him sultan. From that point, the empire was ruled in name by the Abbasids, but in practice by the Seljuq.

The Seljuq expanded westward, defeating the Byzantines in Turkey and even taking control of Jerusalem. These challenges to Christian rule led the pope to call the first crusade in 1096. Christian knights seized and held Jerusalem until 1187, when the city was retaken by the great Muslim general, Saladin. Europeans maintained a presence in the region until the Crusades ended in 1204 and in spite of the conflict, trade flourished between east and west. It was partly through these exchanges that the learning of Muslim scholars in the Middle East was shared with Europe.

Even as the Abbasid political system weakened in later years, it gave rise to great scientific and literary achievement. Ibn Sina, known as Avicenna in the west, wrote the Canon of Medicine in 1025, an encyclopedia describing diseases and treatments that were far ahead of any medical work done in Europe. Much of the great literature of the period was written in Persian. The Shahnameh (“Book of Kings”) was published around the year 1000 and describes the mythologized history of ancient Persian kings. In the 12th century, the stories known as A Thousand and One Nights were first compiled and printed in Arabic.

The creativity that had flowed from Baghdad for four centuries came to a crashing halt in 1258, when the Mongol invasion reached Mesopotamia. The conquerors destroyed the city of Baghdad, burning its palaces and its houses of learning. Although the Mongols would eventually convert to Islam and foster their own cultural achievements, the golden age of the Abbasid dynasty had come to a close.
**Muslim Spain (750-1492)**

By most accounts, Abd al-Rahman was the lone survivor of the Umayyad dynasty after the Abbasids murdered his extended family. He made his way to Spain within five years, mustered support of the Umayyad governors and generals still in the region, and established a capital in the city of Cordoba in 755. During his reign, Abd al-Rahman gave most power to Arab Umayyads, enforced Islam as the official religion, and around 785 began construction on the Great Mosque of Cordoba. This mosque, known in Spanish as La Mezquita, would become the architectural centerpiece of the capital, and of the kingdom. One of the building’s most distinctive features is the prayer hall. Its high ceiling is supported by a forest of columns and arcades, decorated in red and white.

Under Abd al-Rahman III and his immediate successors, Umayyad rule in Spain reached its peak. He effectively put down rebellions and secured recognition from Europe’s political and religious leaders, including Otto I of Germany. In 929, Abd al-Rahman took advantage of religious conflict in the Middle East and named himself caliph, a title of both religious and political authority. He asserted Umayyad power in North Africa against an Egyptian dynasty called the Fatimids. Cordoba was the largest city in Europe at the time, with half a million people. Many of its roads were paved and lit. Even though the Spanish caliphate challenged Abbasid authority in the east, scholars moved between the two regions. Works of philosophy and science reached Cordoba where libraries and houses of study were formed. Poetry flourished in the 900s; one well-known anthology is the Kitab al-Hada’iq.

The Umayyads were ultimately replaced in 1031 by a succession of other Muslim dynasties in Spain that lasted until 1492. However, the establishment of Arab culture in Iberia bore fruit for those four and a half centuries. The Muslim scholar, Ibn Rushd, (1126-1198) was known in the west as Averroes. He translated Aristotle, wrote about medicine, physics and philosophy. While religious minorities didn’t have the same rights as Muslims, Jewish and Christian scholars also made intellectual contributions with the support of Muslim rulers. Moses Maimonides was a brilliant doctor, rabbi and philosopher. He lived in Spain and North Africa, and finally died in Egypt in 1204. The greatest architectural achievement of this later period is the Alhambra, a palace in Granada, begun in the 11th century, but fully decorated and completed in the 14th century.
Teacher key for timeline events:

**Umayyad Dynasty (661-750)**
- 661—capital to Damascus
- 680—assassination of Hussein at Karbala
- 691—completion of the **Dome of the Rock**
- 696—**coins** standardized by weight and appearance, used across empire
- 732—defeat at the Battle of Tours in France by Charles Martel
- 750—overthrown by Abbasid faction

**Abbasid-Seljuq Empire (750-1258)**
- 750—Abbasid faction from eastern Iran overthrows Umayyad dynasty
- 751—Arab defeat of Chinese army introduces paper to the west
- 762—Baghdad becomes the Abbasid capital
- 813-833—reign of Al-Ma’mun, founder of the House of Wisdom
- 850—death of Al Khwarizmi
- ca. 1000—Shahnameh (“Book Of Kings”) published
- 1025—Ibn Sina’s Canon of Medicine written
- 1055—Seljuq Turks gain control of Baghdad
- 1096-1204—Crusades (please note, this represents the four major Crusades, not the less important earlier and later religious wars that also carried the name ‘crusade’)
- 1187—Saladin recaptures Jerusalem
- 12th century—A Thousand and One Nights first compiled
- 1258—Mongols invade and destroy Baghdad, ending the Abbasid-Seljuq dynasty

**Muslim Spain (750-1492)**
- 755—Cordoba established as Abd al Rahman’s capital
- ca. 785—construction began on the Great Mosque of Cordoba
- 822-852—reign of Abd al-Rahman II
- 929—Abd al-Rahman III takes the title of caliph
- 1031—end of the Umayyad dynasty
- 1126-1198—life of Ibn Rushd, Averroes
- 1204—death of Maimonides
- 14th century—completion of the Alhambra Palace in Granada
- 1492—end of Muslim rule in Spain
Bibliography


http://archnet.org/library/sites/one-site.jsp?site_id=31


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<th>Lesson Title</th>
<th>Lesson 2: Geography of Islamic Expansion</th>
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<tr>
<td><strong>Background Information</strong></td>
<td>This lesson is the second part of a 5-day unit. Students begin this lesson having learned the basic history of the Umayyad and Abbasid dynasties. In this lesson, they explore the geographical expansion of the dynasties and human-environment interaction.</td>
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<tr>
<td><strong>Time</strong></td>
<td>50 minutes</td>
</tr>
<tr>
<td><strong>Purpose/Rationale for lesson</strong></td>
<td>After learning about the three major empires of Islamic civilization, this lesson puts the information into geographic perspective. It also prepares students for lesson 3, where they learn about the capital cities, Baghdad and Cordoba.</td>
</tr>
<tr>
<td><strong>Curriculum Framing Questions</strong></td>
<td>What was the geographic extent of the dynasties that made up the Islamic Golden Age? How were these societies shaped by the physical geography of their empires?</td>
</tr>
<tr>
<td><strong>Goal</strong></td>
<td>Students will use various maps (physical, political and climate maps) to create a single map of Islamic expansion. Students will consider the geographical elements of these dynasties and the human-environment interaction.</td>
</tr>
<tr>
<td><strong>Learning Objectives</strong></td>
<td>Students will be able to synthesize information from multiple texts and maps to create a single map of the Umayyad and Abbasid dynasties and Muslim Spain. Students will be able to describe the extent and physical geography of the medieval Muslim world.</td>
</tr>
<tr>
<td><strong>Curriculum Standards</strong></td>
<td>See unit overview</td>
</tr>
<tr>
<td><strong>Implementation</strong></td>
<td>1) Review with students the Abbasid and Umayyad Dynasties and Muslim Spain. 2) Explain to students that they will be using text descriptions of the Dynasties to create a single map of the Abbasid Dynasty, the Umayyad Dynasty, and Muslim Spain. They will include the borders of the empires at their peak as well as physical features and major cities. They will also need to create a legend for the map to show how the reader can distinguish the three empires’ territories from each other as well as label capital vs. other cities, and mountains, rivers, deserts, etc. They will need to use various maps and atlases (from your classroom or textbook) as a reference point.</td>
</tr>
<tr>
<td><strong>Materials needed in class:</strong></td>
<td>• 8 ½ x 11 paper (or larger) • Markers, pens, pencils • Copies of outline map for each student • Age appropriate</td>
</tr>
</tbody>
</table>
| atlases and maps | 3) Give students time in class to complete their map  
4) Have students do a gallery walk around and compare the different maps that they each made. As a class, discuss the similarities and differences in the maps they created.  
Homework: Students will select one of the three dynasties and write a paragraph about the human-environment interaction in the dynasty and what benefits and challenges the dynasty might have faces based on the climate and environment of their land. |
| Assessment & Evaluation of Student Learning | Students will complete the tasks fully.  
Students maps will be drawn thoughtfully and they will reflect the text. |
**Instructions:**

Use the information below to label the land ruled by the Dynasties of the Umayyads, the Abbasids and Muslim Spain. Include the borders of the dynasties as well as capital cities, other cities, bodies of water, mountains, and deserts.

Create a legend that shows how to distinguish the three empires’ territories and the other elements on your map.

**Umayyad Dynasty:**

At its peak, the Umayyad Dynasty controlled over 4000 miles of land, spanning from the western-most point of Africa through the Arabian peninsula and Persia, about 400 miles east of Samarkand at the Indus river. Its capital lay in Damascus. The Umayyads ruled land north of Damascus past the Byzantine Empire (in current-day Turkey) to the city of Tiflis (modern day Tbilisi, which lies 125 miles east of the Black Sea and 158 miles west of the Caspian Sea).

As the Umayyads spread west through the Maghreb (into current-day Morocco), they stayed north of the Saharan desert in the steppe and Mediterranean climate regions. The Arabian Peninsula contained all desert while Persia proved to be a mix of steppe and Mediterranean climates.

The southern-most point of the dynasty in North Africa was approximately 500 miles south of Alexandria and included a large portion of the Nile River. Other rivers included the Tigris and the Euphrates and the Indus River. Larger bodies of water include the Red Sea, the Persian Gulf, the Caspian Sea and the Aral Sea.

Important cities include:

- Damascus (the Umayyad capital)
- Jerusalem (where they built the Dome of the Rock mosque)
- Mecca (where the Umayyad family is originally from)

**Abbasid Dynasty:**

At its height, the Abbasid Dynasty controlled all the land of the Umayyad Dynasty and beyond! The Abbasid Dynasty also extended further south into the Sahara desert, about 100 miles beyond the Umayyad Dynasty (current day Morocco and Western Sahara).

The Abbasid Dynasty moved its capital from Damascus to Baghdad, a city lying between the Tigris and Euphrates rivers.

**Muslim Spain:**

The land of Muslim Spain only occupied the Iberian Peninsula to the Pyrenees. Cordoba stood as its capital.
Writing Assignment—Human Environment Interaction

Select one dynasty (Umayyad, Abbasid, Muslim Spain) and consider what benefits and challenges existed to those dynasties based on the environment of the land they controlled. Write a paragraph with a clear topic sentence, at least three supporting details, and a conclusion.
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<th>Lesson Title</th>
<th>Lesson 3: Baghdad and Cordoba: Cities of the Golden Age of Islam</th>
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<tbody>
<tr>
<td>Background Information</td>
<td>This lesson is the third part of a 5-day unit. Students begin this lesson having learned geographic themes for the cities under study as well as their histories. Today's lesson explores the legacy of these two specific cities.</td>
</tr>
<tr>
<td>Time</td>
<td>100 minutes (2 class periods)</td>
</tr>
<tr>
<td>Purpose/Rationale for Lesson</td>
<td>Cities are important meeting places for the exchange of goods and ideas. In empires, traders and scholars flock to capital cities where they can enjoy the protection and patronage of political leaders. Understanding the dynamics of cities, such as Cordoba, Spain and Baghdad, Iraq, provides a foundation for students to understand the empires and their achievements.</td>
</tr>
<tr>
<td>Curriculum Framing Questions</td>
<td>How are events in distant empires related? In what ways were the achievements of the Abbasid and Umayyad dynasties similar? In what ways were they different? Where did it take place and how did geography affect its character?</td>
</tr>
<tr>
<td>Goal</td>
<td>Students will consider what are important characteristics of a capital city. Students will understand the development of the capitals of the Abbasid Caliphate (Baghdad) and Islamic Spain (Cordoba) and how geography affected them.</td>
</tr>
<tr>
<td>Learning Objectives</td>
<td>Students will use primary and secondary sources to answer questions about Baghdad and Cordoba and create visual representation of the cities. Students will be able to explain the role of cities in a civilization, particularly the way in which agriculture and infrastructure support population growth.</td>
</tr>
<tr>
<td>Curriculum Standards</td>
<td>See unit overview</td>
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<tr>
<td>Implementation</td>
<td>1) Have students to take three-five minutes and write down what they think is important in a capital city. Discuss as a class and write their answers on the board. 2) Review with students what was discussed about the Abbasid Empire, the Umayyad Dynasty and Muslim Spain. If they don’t say it, remind them that for each dynasty, the ruler built a new capital city. Tell them that the Umayyad capital in Damascus was relatively short lived and that in this unit we’ll focus on Baghdad, the capital of the Abbasid Empire and Cordoba, the capital of</td>
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Lesson 3: Baghdad and Cordoba: Cities of the Golden Age of Spain

Muslim Spain.

3) Explain to students that they will be exploring the capital cities of Baghdad and Cordoba and learning what made them the glorious capital cities that they were.

4) Divide students into groups of 3 and assign each group a city, either Cordoba or Baghdad.

5) Give each group member a task packet (for Cordoba or Baghdad, depending on their assigned city). Within the group, each member will complete one task and come together to do task four as a team. **It is advised to have each student complete their task as homework the night before and spend the first class period of the lesson in groups reviewing the information and completing task 4 together.

6) Teacher should rotate throughout the room and make sure that students are staying on task, answer their questions, and encourage further discussion.

7) Once students have finished their tasks and created their city maps, each group will present their map to the class and share what they learned about their city. **This likely will take place on the second day.

8) End the class with a discussion of some of the differences and similarities between Cordoba and Baghdad.

| Assessment & Evaluation of Student Learning | Students will complete the tasks fully. Students’ city maps will be drawn thoughtfully and they will reflect what they have learned. Students will present the information clearly to the rest of the class. |
The City of Cordoba

Task One—Read the following two passages and answer the questions on the back of the page:

Passage 1:

“Before the Muslim conquest of Spain, Romans created an extensive infrastructure of roads, bridges, aqueducts, and urban centers in various parts of Iberia. They also grew crops such as cereal grains, olives, and grapes on large estates in the region. These crops were harvested and exported to other regions of the vast Roman Empire. Spain quickly acquired a reputation for plentiful harvests and rich natural resources.

The Muslim conquest of Iberia prompted the introduction of new agricultural technology, innovative irrigation practices, and many new crops to Al-Andalus. This dramatic agricultural transformation was known as "The Green Revolution."

…These innovations increased the amount of water available for irrigation throughout the year and overcame the limits of previously used gravity-fed irrigation. During the height of Umayyad rule, historic sources indicate over 5,000 waterwheels were built along the Guadalquivir River alone.

The use of precise water management techniques, coupled with multi-seasonal planting and harvesting, increased agricultural output. Rulers and merchants alike sponsored the introduction of a vast new array of crops that originated in such countries as China, India, and Persia. The Andalusi people enjoyed many foods previously unknown in Iberia, including sugarcane, citrus, melons, figs, spinach, eggplant, and rice.

This agricultural explosion served as a foundation for an expanding population and greater prosperity throughout Al-Andalus.”

Cities of Light (2007), Sumptuous Living, retrieved from: http://www.islamicspain.tv/Islamic-Spain/sumptuous_living.htm

Passage 2:

As a Mozarab bishop, Recemundus, described [Cordoba] in March 961:

‘Fig trees are grafted in the manner called tarqi; the winter corn grows up; and most of the fruit trees break into leaf. It is now that the falcons of Valencia lay eggs on the island of the river and incubate them for a month. Sugarcane is planted. The first roses and lilies appear. In kitchen gardens, the beans begin to shoot. Quails are seen; silkworms hatch; grey mullet and shad ascend the rivers from the sea. Cucumbers are planted and cotton, saffron and aubergines sown…Locusts appear and must be destroyed. Mint and marjoram are sown…”


Vocabulary:

~Infrastructure: The basic physical and organizational structures needed for the operation of a society (buildings, roads, bridges, etc).

~Innovation: a new idea, method, or device
Questions:

a. How did the innovation of the Romans help Cordoba? What innovative contributions came from the Muslims?

b. How did agriculture support population growth in Cordoba?
Task Two—Read the following passages and sketch a map of what Cordoba might have looked like in the space below:

Passage 1:

Al-Idraisi, the great medieval geographer, wrote:
‘Cordoba is made up of fine continuous cities, each surrounded by walls that divide it from the rest, and possessing enough markets, hostellies, baths, and buildings for the different professions. From east to west the city covers a distance of five kilometers (three miles). From the Gate of the Jews in the north to the Gate of the Bridge in the south is a little over one and a half kilometers (just under one mile).’


Passage 2:

Cordova was an ancient city before the advent of Islam. When the Visigoths came storming across the Pyrenees after the fall of the Roman Empire, they made straight for the lush terrain to the south. They found a strategic spot on the Guadalquivir River from which they could control the area. It was far enough from the mountains to be defended against other…tribes, and far enough from the Mediterranean to be safe from marauding pirates. The river gave access to the sea. Armies could quickly be dispatched to every part of the province, and the land was fertile enough to support a large population. Saudi Aramco (April 1963) Cultured Cordova, pages 11-13. Retrieved from http://www.saudiaramcoworld.com/issue/196304/cultured.cordova.htm

Vocabulary:
~Hostelry: An inn
~Maraud: to raid and plunder

Map of Cordoba:
Task Three—Read the descriptions of the city of Cordoba below:

Passage 1:

Another writer of the time once counted all the houses in the city and suburbs and found that they came to a total of 213,077. [He explained that]

“This figure includes the dwellings of the common people such as workmen and artisans, but excludes the rested attics, inns, baths and taverns. The palaces of the nobles, viziers, officials of the royal household, generals and wealthy citizens, the barracks, hospitals, colleges and other public buildings come to a total of 60,300.”

The population of Cordoba was about 500,000 compared to about 40,000 for Paris at the same time…The most impressive buildings, of course, were the mosques—especially the Great Mosque, which still stands in Cordoba. Saudi Aramco World, Sept/Oct 1976, The Golden Caliphate, pgs 12-16, retrieved from: http://www.saudiaramcoworld.com/issue/197605/the.golden.caliphate.htm

Passage 2:

“There were hundreds of mosques and public baths in Cordova. More striking to visitors, for whom books were rare and precious things, were the city’s 70 major libraries—including one collection of 400,000 volumes gathered by the Caliph Al Hakam II. The paved streets contrasted with the dust and mud that would remain familiar irritations in Paris and London for centuries to come.

…Dominating the Cordovan skyline stood the Great Mosque. Begun by Abd Al Rahman I in 785 and added to by subsequent rulers of Iberian Islam, the Great Mosque grew into the wonderful structure known today as the Cathedral of Cordova. Several modern writers have used the word "forest" in referring to the interior columns, an apt term since there are over a thousand of them supporting the huge roof.” Saudi Arameo (April 1963) Cultured Cordova, pages 11-13. Retrieved from http://www.saudiaramcoworld.com/issue/196304/cultured.cordova.htm

Make a list of buildings and institutions that were in Cordoba.

1. 6.
2. 7.
3. 8.
4. 9.
5. 10.
Task Four—Come together as a team and share information from the three tasks.

a. As a group, answer the following question: What is the significance of agriculture in the rise of the city of Cordoba? List 3 reasons.

b. Look at the list of buildings in task 3. What other buildings would you expect to find in a capital city? Add at least 6 new ideas.

c. As a group, look at the map of Cordoba your teammate drafted. Brainstorm how you will expand it. Make notes in the space below.

**consult with your teacher—get permission to move on**

d. On a 11x17 size paper (get from your teacher), expand and illustrate your map of Cordoba. Include the institutions on your list and what you think they looked like. Be sure to include the following:
   - Greenery (gardens, farms, trees, flowers)
   - Government buildings
   - Mosques, synagogues and churches
   - Libraries

c. On the back of this sheet, write a short essay (10-12 sentences) explaining the placement and illustrations of the various institutions and buildings in the city.

Turn this sheet in to your teacher with your map.
**City of Baghdad**

Task One--Read the following two passages and answer the questions below:

Passage 1:

When Mansur was planning to build Baghdad, he received the following advice from locals already living in the area:

“We are of the opinion that you should found the city here between the four districts of Buk and Kalwadha on the eastern bank, and of Katrabbul and Badaraya, on the western bank [of the Tigris]: then you will live among palms and near water, so that if one district fails you in its crops or be late in its harvest, in another will the remedy be found. Also your city being on the Sarat Canal, provisions will be brought forth by the boats of the Euphrates, and by the caravans through the plains, even from Egypt and Syria. Hither, up from the sea, will come the wares of China, while down the Tigris from Mosul will be brought goods from the Byzantine lands. Thus shall your city be safe standing between all these streams, and your enemy shall not reach you, except it be by a boat or by a bridge, and across the Tigris or the Euphrates.” Adapted from Le Strange, G. (1900), Baghdad during the Abbasid Caliphate, page 14

Passage 2:

“At the riverbank, the Caliph ordered his companions to halt…carefully he surveyed the Tigris upstream and down with the practiced eye of a military man and monarch. The swiftly flowing river, he saw, was a natural defense, a hazardous obstacle for any invading army. The few farms in the area could easily be multiplied throughout the surrounding fields to meet the needs of an expanding population. In short, here might stand a metropolis in peace and a citadel in war.”


Questions:

a. Why did the locals think that the location would be good for Mansur’s capital city?

b. What are the benefits of being by the Tigris River and the Sarat Canal?

---

Vocabulary:
~ Mosul: a city north of Baghdad  
~ Caliph: head of state/ruler of the dynasty  
~ Metropolis: city  
~ Citadel: a fortress protecting a city
Task Two—Read the following passage and sketch a map of what Baghdad might have looked like in the space below:

Passage 1:
“The Round City in Western Baghdad…was founded by Mansur in the year 762 CE, formed the nucleus of the great metropolis which afterwards, radiating from this centre, spread itself over both banks of the Tigris. This [city]…was built with a double wall and four gates, it was exactly circular in outline, and stood close to the right bank of the river, at the angle formed by the inflowing of the Sarat Canal.”  Adapted from Le Strange (1900), Baghdad during the Abbasid Caliphate, page 15

Passage 2:
“Four years in the building, the Round City was based on the plans of traditional Roman military camps and designed with security uppermost in al-Mansur’s mind. It was surrounded by a double set of immense brick walls…and then by a broad moat that was fed by the Tigris. Four gates pierced these fortifications, from which roads radiated to the far corners of the empire. The Khurasan Gate in the north-east was the gateway to Persia, while the Basra Gate in the south-east, the Kufa Gate in the south-west and the Damascus Gate in the north-west each led to the city after which it was named. Each gate had also been carefully designed so as to secure the inner city against invasion, with a complex series of curved passageways, ramps and chambers.”  Al-Khalili, J. (2011) The House of Wisdom, p28-29

Passage 3:
“[The Caliph’s] metropolis was to look like a fort with broad, paved avenues radiating from the center [of the Round City] like the spokes of a wheel. He wanted his sentries on the walls, to spot an enemy outside or a disturbance inside, to have his garrison marching to the scene within minutes.”  Saudi Arameo World, Nov 1962, Builder of Baghdad, pgs 14-16, retrieved from: http://www.saudiaramcoworld.com/issue/196209/builder.of.baghdad.htm

Map of Baghdad:
Task Three—Read the descriptions of the city of Baghdad below:

Passage 1:
“The Caliph’s palace rose at the hub of the wheel, until its lofty, emerald colored dome, 130 feet high, dominated the city. The palace of Baghdad formed a labyrinth of rooms and corridors leading into alcoves, cloisters and courtyards. The gardens were laced with rose bowers, dotted with splashing fountains, and ornamented with strutting peacocks.”

Passage 2:
…The capital of an empire, Baghdad soon was filled with ordinary citizens. They build houses, practiced trades, farmed the surrounding fields and did the routine jobs of any big city. But Baghdad’s special flair prevented it from being just another city. After the toil of the day, the citizens might frequent his choice from a thousand public baths. He might go to a polo game, or a poetry recital, or perhaps he would attend meetings of metaphysicians or wander through the darker quarters of the city. And there were always the bazaars filled with teeming, chattering humanity in search of a loaf of bread or an Indian diamond. Merchants became wealthy by sending caravans to Egypt and Syria and commanding ships down the Tigris to the emporiums in the Persian Gulf.”


Passage 3:
In the city you could find “sprawling markets, wide avenues, mosques and municipal buildings..The shoemakers’ market might lead onto the bookseller’s market; the bird market alongside the flower market. Then there were the food markets and bakeries, which would have been set apart from the higher-class goldsmiths, moneychangers and elegant boutiques for the wealthy…Not only was Baghdad now the administrative hub of the Islamic world, it also became a centre for art, culture and trade.”


Make a list of buildings and institutions that were in Baghdad.

1. 6.
2. 7.
3. 8.
4. 9.
5. 10.

Vocabulary:
~ Labyrinth: Maze
~ Bazaar: a market
Task Four—Come together as a team and share information from the three tasks.

a. As a group, answer the following question: List three benefits of building a capital city by the Tigris River and the Sarat Canal?

b. Look at the list of buildings in task 3. What other buildings would you expect to find in a capital city? Add at least 6 new ideas

c. As a group, look at the map of Baghdad your teammate drafted. Brainstorm how you will expand it. Make notes in the space below

**consult with your teacher—get permission to move on**

d. On a 11x17 size paper, expand and illustrate your map of Baghdad. Include the institutions on your list and what you think they looked like. Be sure to include the following:

- The Caliph’s palace
- The four gates
- The Tigris river and Sarat Canal
- Greenery (gardens, farms, trees, flowers)
- Government buildings
- Mosques, synagogues and churches

c. On the back of this sheet, write a short essay (10-12 sentences) explaining the placement and illustrations of the various institutions and buildings in the city.

Turn this sheet in to your teacher with your map.
### Lesson Title
Lesson 4: House of Wisdom—scholarship in the Abbasid Dynasty

### Background Information
In the 8th century, the city of Baghdad was established by the Abbasid Dynasty and embraced enlightenment across the Muslim world. Bayt al-Hikma (The House of Wisdom) was a library where leading Muslim scholars translated text from Chinese, Greek, Persian, and Sanskrit into Arabic. Writings translated at the House of Wisdom included research in science, mathematics, astronomy, medicine, alchemy, chemistry, zoology, geography, cartography, and much more. In addition, as the high point in ancient Islamic civilization, the House of Wisdom served as an institution where information was shared among scholars from around the world and passed on to students. As the center of the Islamic Golden Age, the library brought together scientists, scribes, religious scholars, and others to translate, read, write, and discuss. In 1258, the House of Wisdom was destroyed during a Mongol invasion of Baghdad. However, over 400,000 manuscripts were rescued and stored in the Maragheh Observatory in Iran prior to the siege and so serve as a record of Baghdad’s greatest achievements.

### Time
50 minutes

### Purpose/Rationale for lesson
This lesson provides students with an opportunity to delve deeper into the Abbasid Dynasty and understand some of their great achievements.

### Curriculum Framing Questions
What was the House of Wisdom and why was it important?

Why did Caliph al-Ma’mun create the House of Wisdom and why did he choose Baghdad for its location?

### Goal
Students will learn about important Arabic contributions to philosophy, humanities, mathematics, and the sciences.

### Learning Objectives
Students will apply knowledge to categorize and evaluate information learned about the House of Wisdom.

Students will listen to and understand the story, *House of Wisdom*, by Florence Parry Heide and Judith Heide Gilliland.

Students will recognize the geographical and historical significance of Baghdad’s location.

### Curriculum Standards
See unit overview

### Implementation
1) Divide students into groups of 2-3 students. Provide each group with an envelope containing 14 words (listed below) from *The House of*
<table>
<thead>
<tr>
<th><strong>Materials needed in class:</strong></th>
<th><em>Wisdom</em>, by Heide &amp; Gilliland. Allow students to read through the words. Have students determine three categories in which to place the words. Emphasize that there is no correct answer. Have one person from each group share the determined categories. Place words to the side for further discussion at the end of the activity. <em>Note: possible category titles include Person, Language, Subject.</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Slips of paper with House of Wisdom Words cut up and placed in envelopes</td>
<td>2) Distribute copies of the House of Wisdom graphic organizer to students. Instruct them to complete the first page (about the characters and setting) as you read aloud <em>The House of Wisdom.</em></td>
</tr>
<tr>
<td>• Copy of the book <em>House of Wisdom</em>**, by Florence Parry Heide and Judish Heide Gilliland</td>
<td>3) When you’re finished reading the story, come together to discuss. Encourage students to consider what the House of Wisdom is and why it was important. Have students work independently or in small groups to determine the main idea of the story and complete the second page of the graphic organizer.</td>
</tr>
<tr>
<td>• Copies of graphic organizer</td>
<td>4) Return to the words distributed at the beginning of the lesson. Ask students if they would like to make any changes to the categories of placement of words. After a couple minutes of group discussion, have students share any changes.</td>
</tr>
</tbody>
</table>

**Homework:** Have students write a short summary paragraph about the House of Wisdom.

**Extension Activity**

Have students conduct research projects on selected scholars from the House of Wisdom: Al Kindi, Albucasis, Avicenna, Al Biruni, Al Khwarizmi, Averroes. For reference books, see the series, “Great Muslim Philosophers and Scientists of the Middle Ages” from Rosen Publishing. These books are available to borrow from the Middle East Studies Center at PSU and are also available at many public libraries. Online resources and encyclopedia articles are also available for these major figures.
Synthesizing Information Words: Divide class into groups of 2-3. Give each group an envelope containing slips of paper with the words listed below:

Aristotle  Hunayn
Astronomy  Ishaq
Caliph al-Ma’mun  Mathematics
Galen  Plato
Geography  Sanskrit
Greek  Syriac
Hippocrates  Persian
House of Wisdom
by Florence Parry Heide and Judith Heide Gilliland

Story Details
As you listen to the story, fill in as many details as you can about the characters, the setting, and what is happening in the story.

<table>
<thead>
<tr>
<th>Character</th>
<th>Details (write everything you learn about the characters)</th>
<th>Setting (where the story takes place)</th>
<th>Details (write everything you learn about the setting)</th>
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</table>

Plot
(take notes here on the plot of the story)
Understanding the Story
After listening to the story, write the main idea of the story in the center. Write supporting details in the squares beneath it.

Main idea of the story

1. What is one thing that surprised you about the story? ________________________________________________________
   _________________________________________________________________________________________________________

2. Hunayn tells his son, Ishaq, that “We are like leaves of the same tree, separated by many autumns.” What does that mean?
   _________________________________________________________________________________________________________
<table>
<thead>
<tr>
<th>Lesson Title</th>
<th>Lesson 5: Art, Architecture and Scholarship in Muslim Spain</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Background Information</strong></td>
<td>This lesson is the last in a 5-day unit. Students have learned about the time periods of Muslim rule in Spain, its major city and accomplishments. Today, students analyze some of those achievements as primary sources.</td>
</tr>
<tr>
<td><strong>Time</strong></td>
<td>50 minutes</td>
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<tr>
<td><strong>Purpose/Rationale for lesson</strong></td>
<td>“Primary sources provide a window into the past—unfiltered access to the record of artistic, social, scientific and political thought and achievement during the specific period under study, produced by people who lived during that period. Bringing young people into close contact with these unique, often profoundly personal, documents and objects can give them a very real sense of what it was like to be alive during a long-past era.” <a href="http://www.loc.gov/teachers/usingprimarysources/whyuse.html">http://www.loc.gov/teachers/usingprimarysources/whyuse.html</a></td>
</tr>
<tr>
<td><strong>Curriculum Framing Questions</strong></td>
<td>What can objects tell us about the people who made them? In what ways were the achievements of the Abbasid and Umayyad dynasties similar? In what ways were they different? How did the achievements of these dynasties influence the world around them?</td>
</tr>
<tr>
<td><strong>Goal</strong></td>
<td>Students will identify and describe artistic, architectural and scholarly achievements from the time of Muslim rule in Spain.</td>
</tr>
<tr>
<td><strong>Learning Objectives</strong></td>
<td>Students will be able to describe the physical properties of an object and analyze its role in the culture that created it. Students will be able to identify cultural diffusion between the Iberian Peninsula and other parts of the world.</td>
</tr>
<tr>
<td><strong>Curriculum Standards</strong></td>
<td>See unit overview</td>
</tr>
<tr>
<td><strong>Implementation</strong></td>
<td>1) Elicit from students the difference between primary and secondary sources. Remind them that the readings from day 1 were secondary sources, written after the fact and filtered through the minds of later historians. Today, students will look at images of actual creations from the Muslim empires in Spain. These are primary sources—representations of objects from the time period with no other explanation provided at first.</td>
</tr>
</tbody>
</table>

**Materials needed in class:**
- Primary source analysis worksheet (1 per student)
- Computer & projection screen
for whole group practice

- One copy of each image in the lesson, preferably in color, divided into 3 groups: art, architecture, scholarship
- Descriptions for each image set: enough copies for students to share in step 6c.

2) Hand out worksheet for primary source analysis, one per student. (Students will work together, but should each have their own note-taking sheet.)

3) Project on a screen one of the art images from those offered below. As a group, walk through the guiding questions to analyze the projected image. Students should take notes in the top row (labeled sample).

4) After completing the observe/reflect/question columns, project the explanatory text for students about that object. Compare students’ analysis with what is known about the object. Are any of their questions answered? As a group, take notes in the far-right column.

5) Divide students into three groups, one for each category: art, architecture, and scholarship. Within those larger groups, students can work in pairs or alone, but the categories help with the circulation of materials. Give each group one of the primary source sets (images only at this point; duplicate as needed) to analyze as modeled in class. Because groups will share information, individual students do not need to analyze every image in the set.

6) Divide the remaining class time into thirds (at least 10 minutes each), allowing each group time to explore the 3 primary source sets. Alternately, you may choose to have each group spend more time with a single set and then share their findings as a class. Group tasks for each set should be:
   a. Observe/reflect/question—on worksheet
   b. Discuss with other group members, share analyses
   c. After observation & discussion, the teacher hands out the descriptions for that image set. Students read.
   d. Students then complete the ‘follow up’ column

7) Conclude class with a summary discussion of what students learned. Adapt this to in information gap activity if you had each group only use one image set.

Homework: Students use their analysis worksheets to answer the following question in a 3-5 paragraph essay: How do art, architecture and scholarship from medieval Muslim Spain reveal connections between different parts of the Muslim world and Europe in the Middle Ages? Adapt this question if you had each group only use one image set.

Assessment & Evaluation of Circulate during the activity to encourage and ensure participation

Golden Age of Islamic Achievement
Lesson 5: Art, Architecture and Scholarship in Muslim Spain
<table>
<thead>
<tr>
<th>Student Learning</th>
<th>by all students.</th>
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<tbody>
<tr>
<td></td>
<td>Correct worksheets for detailed notetaking.</td>
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<tr>
<td></td>
<td>Correct essays for writing skills, social studies analysis, and an understanding of the unit’s overall goals.</td>
</tr>
<tr>
<td>Primary Source Analysis Worksheet</td>
<td>Observe</td>
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<tr>
<td>What do you see? Describe colors, patterns, materials, and imperfections. What is the shape? What is it made of?</td>
<td>What do you think it was used for? How do you think it was made and by whom? Who do you think owned it? What might it tell you about the culture that made it?</td>
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<tr>
<td>Sample</td>
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<tr>
<td>Primary Source Set 1</td>
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<tr>
<td>Circle one:</td>
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<tr>
<td>Art</td>
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<tr>
<td>Architecture</td>
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<td>Scholarship</td>
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<tr>
<td>Primary Source Set 2</td>
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<td>Circle one:</td>
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<td>Art</td>
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<td>Architecture</td>
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<td>Scholarship</td>
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<th>Primary Source Set 3</th>
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<tr>
<td>Circle one:</td>
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<tr>
<td>Art</td>
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<tr>
<td>Scholarship</td>
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</tbody>
</table>
Muslim art in Spain
Descriptions¹ and Image Sources

1. **Parade Helmet in Hispano-Moresque Style**, late 15th–early 16th century
   Steel, gold, silver, cloisonné enamel; H. 7 7/8 in. (20 cm), Wt. 3 lb. 12 oz. (1.7 kg)
   This helmet is traditionally thought to have belonged to Abu cAbd Allah Muhammad, known in the West as Boabdil, the last Nasrid king of Granada (r. 1482–83, 1487–92). If so, it is the only known example of armor to have survived from the Nasrid period in Spain (1238–1492). The helmet has the form of a typical Spanish sallet of the late fifteenth century. The cutouts over the eyes, however, were inspired by those of Islamic helmets. The extraordinarily rich decoration, which includes cloisonné enamels and finely tooled designs in gold leaf, has close parallels in surviving Nasrid sword fittings and jewelry. The bowl has been pierced to fit the enamels and is lined with riveted plates to support them, indicating that the helmet was created exclusively for ceremonial use.


2. **Pyxis**, 10th century (950–975);
   Ivory; H. 4 5/8 in. (11.8 cm), Diam. 4 1/8 in. (10.6 cm)
   The pyxis (round box) cut from the cross-section of an elephant's tusk, was a well-known form of ivory object in the Mediterranean area. The missing lid of this example, shaped as a low dome with a finial on top, would likely have had an inscription on it, perhaps giving a date or the name of the owner of the piece. Used principally in a secular context, in the Islamic world pyxides, call ushnan in Arabic, contained precious aromatics such as musk, camphor, and ambergris.


3. **Textile fragment**, 14th century; Nasrid
   Silk, lampas weave; 40 1/8 x 14 1/4 in. (102 x 36.3 cm)
   This silk textile fragment, of which the full loom width (hung vertically) is preserved, displays two scripts. The knotted kufic inscription woven in black repeats the word beatitude and runs on a wide red-ground border. The decorative calligraphy is in harmony with the geometric design of the fabric. The naskhi script, which reads, "good luck and prosperity," is less easily discernible, filling the small cartouches outlined in white lines within the narrower borders on both sides of the larger kufic band. The overall geometric design of the textile has close connections with architectural decoration, especially the stuccowork and wall tiles of Nasrid buildings. Similar woven textiles continued to be produced under Christian patronage after the fall of the Nasrid kingdom in 1492, testifying to their aesthetic appeal for Christians as well as Muslims.


¹ Text is taken directly from the source cited. It is not paraphrased, but is edited for length. For example, catalog numbers and donors are not listed in the descriptions, but can be found by following the hyperlink.
4. **Textile fragment**, first half of 12th century
Silk and gold-wrapped silk; a compound weave
This textile fragment displays a pattern of roundels bearing addorsed griffins with gazelles below their forelegs, within a border of pairs of fantastic animals. The interstitial motif consists of an eight-pointed star enclosing a rosette, and surrounded by pairs of confronted quadrupeds. The pattern, popular in both Muslim and Byzantine worlds, recalls earlier silks of the eastern Mediterranean and, ultimately, of Central Asia. Silks of this type have been found in reliquaries of churches in Spain; they may be the "patterns with circles" of Almería referred to in historical documents.


5. **Deep Dish  (*brasero*)**, ca. 1430 (Valencia)
Tin-enamelled earthenware; Diam. 17 3/4 in. (45.1 cm)
With its warm colors, rich metallic surface so successfully imitating the patina of precious metals, and pleasant design combining Muslim and Christian motifs, Valencian lusterware was the most accomplished and sought-after glazed ware in Europe during the fourteenth and fifteenth centuries. Innumerable members of royal and noble houses in Spain, France, and Italy commissioned lusterware for both table service and decoration and had it emblazoned with their coats of arms. The Muslim motifs that grace this example are typical of the dominant style of Valencian luster decoration during the latter part of the fourteenth century: bands of pseudo-šufic script circumscribe the Arabic tree of life and abstract palmette designs found at the center. Typical too are the strokes of cobalt blue glaze set against a background of creamy white with patterns of copper luster.


6. **Horse Bridle or Belt Ornaments**
Gilt copper or copper alloy and cloisonné enamel
Smallest element: L. 4/5 in. (2.1 cm), Largest element: Diam. 2 2/5 in. (6.2 cm)
Colorful plaques of cloisonné enamel set into intricate patterns of filigree and granulation adorn this sumptuous group of ten ornaments, components of a larger set that may have decorated an elaborate horse bridle or perhaps a sword belt. Their design and decorative techniques link them to other pieces of fine metalwork made in the Nasrid capital of Granada, presumably in a royal workshop.


7. **Plaque**, 10th–early 11th century; Caliphal; Attributed to Córdoba, Spain
Ivory, quartz, pigment; H. 4 1/4 x 8 in. (10.8 x 20.3 cm)
This panel, carved from a single piece of elephant ivory, once adorned one side of a rectangular casket. The complexity of the decoration as well as the attention to details—such as the eyes of humans and animals, which were drilled and filled with minute clear stones—demonstrate the refinement and accomplishment of such an object.

8. **Capital**, Spanish Umayyad period (756–1031), 10th century
Spain, probably Córdoba
Marble; carved; H. 14 1/2 in. (36.8 cm), W. 13 1/2 in. (34.3 cm), D. 13 1/2 in. (34.3 cm)
This capital probably came from the splendid Umayyad royal residence city of Madinat al-Zahra’, near Córdoba, Spain, which was founded in 936. The classical tradition so important in Umayyad Syrian art is evident here. This is not surprising in light of the Syrian roots of this caliphal house (711–1031), which arose in Spain after the Umayyad dynasty was replaced and almost extinguished by the new cAbbasid rulers centered in Baghdad.


**Note to teachers:** All images in this primary source set (Muslim art in Spain) come from the Metropolitan Museum of Art’s Heilbrunn Timeline of Art History. The timeline is “funded by the Heilbrunn Foundation, New Tamarind Foundation, and Zodiac Fund. The Timeline is a chronological, geographical, and thematic exploration of the history of art from around the world, as illustrated by the Museum’s collection. It is an invaluable reference and research tool for students, educators, scholars, and anyone interested in the study of art history and related subjects. First launched in 2000, the Timeline extends from prehistory to the present day. The Museum’s curators, conservators, and educators research and write the Timeline, that continues to expand in scope and depth and reflect the most up-to-date scholarship.” We highly recommend that teachers further explore this valuable resource: [http://www.metmuseum.org/toah/](http://www.metmuseum.org/toah/)

Golden Age of Islamic Achievement
Lesson 5: Art, Architecture and Scholarship in Muslim Spain
Art 1
Art 2
Art 4
Art 5
Art 6
Art 8
Muslim architecture in Spain

Muslim rulers across their empires built mosques, palaces, hospitals and government buildings. Architectural features such as columns, arches, domes and vaults had been developed for support and beauty by Romans, Greeks, and Egyptians. However, Muslim architects used these features in new ways and spread their advances to Spain, and eventually to Europe. Some of the features shown in this primary source set are arches, vaults, and arabesques.

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Archs are structural spans that create open space while bearing the weight of the building materials around them. Building on earlier empires’ semi-circular arch, Muslim architects developed a horseshoe arch and multi-foil (many-leaved) arch. The horseshoe is a symbol of holiness in Arab culture and so was appropriate for use in religious buildings, like the Grand Mosque in Cordoba. It is not as strong as some arches, but gives a lot of height. When it was adopted later in Britain, it was called the Moorish arch; Moor is a name for Spanish or North African Muslims. The multi-foil arch has a number of decorative lobes carved into it. Some beautiful examples are found in the Cordoba Mosque as well as the Alhambra Palace in Granada. European churches adopted this decorative arch from the 10th century, and especially found use for a three-lobed version, which represented the Christian concept of the trinity.

Vaults use arches to create a ceiling over a large space. Tunnel vaults are made from a series of parallel arches; ribbed vaults are made from intersecting arches that can then support a much larger space than a single arch would. Domes use this structure to create large open spaces. The vaults inside Cordoba’s Grand Mosque inspired many of Europe’s churches. A distinctive element in Muslim architecture is the stalactite vault, or muqarnas. Muqarnas is a vault decorated with carved shapes inside, sometimes appearing like a honeycomb. The Alhambra Palace in Granada, constructed in the 14th-15th centuries, is famous for its muqarnas.

Geometric shapes play a large role not only in a building’s structure, but in its decoration. Islamic design includes arabesques—patterns of repeating units, often shapes, but sometimes also floral patterns and calligraphy. Islam discourages the use of the human form in religious art, so designers have long turned to these beautiful patterns to decorate religious buildings, texts, and other artwork.

Source:
Image Credits—Muslim architecture in Spain

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1. Multifoil Arch and Horseshoe Arch
http://commons.wikimedia.org/wiki/File:Maqsura_de_la_Gran_Mezquita_de_C%C3%B3rdoba_%28Espa%C3%B1a%29.jpg

2/ Lateral de Mezquita
http://www.flickr.com/photos/hermenpaca/3076446569/

3. Horseshoe arch
http://www.europeana.eu/portal/record/09407a/5516DF465E2E53D1E3E02C41E2D3CA5506D207BF.html

4. Ribbed Vault
http://www.europeana.eu/portal/record/09407a/1A473F56C28C731575150616EA1003B41B712867.html

5. Maqsura Dome Mezquita
http://www.flickr.com/photos/idip/44313146/

6. Alhambra Muqarnas.

7. El Mirador de Lindaraja
http://www.flickr.com/photos/degreen/4277717030/sizes/l/in/pool-83748473@N00/

8. Alhambra Calligraphy

9. Arabesque Alhambra
Architecture 1
Architecture 2
Architecture 3
Architecture 4
Architecture 5
Architecture 8
Architecture 9
Scholarship in Muslim Spain
Descriptions and Image Sources

1. 13th-Century Qur’an from Seville
This early 13th-century manuscript is among the very few surviving dated Qur’ans from Islamic Spain. Completed in Seville in 1226 AD (624 AH), it was rescued from destruction during the Reconquista (reconquest) by Muslim refugees who fled Spain for North Africa. In 1535, when the Holy Roman Emperor Charles V (1500–58) conquered Tunis in an expedition against the Barbary pirates, his troops seized the Qur’an and took it back to Europe. The manuscript subsequently came into possession of Johann Albrecht Widmanstetter (1506–57), a diplomat and orientalist whose library later became the foundation for the Munich court library. The text is written on parchment in condensed Andalusi script. Gold dominates in the coloring of the opening double page, in the surah (chapter) headings, and in the verse markers and ornaments in the margins referring to prostrations and the division of the Qur’an into sections. The final page with the colophon is set in a rosette surrounded by a square frame. The manuscript is at the Bavarian State Library in Munich, Germany.
Date Created: 1226 CE

http://www.wdl.org/en/item/8934/#zoom=0.546316495905169&centerX=0.5103668292477538&centerY=0.5773023851904834

2a & 2b. The Method of Medicine
Abu al-Qasim Khalaf ibn al-Abbas Al-Zahrawi (also known by his Latinized name Albucasis, circa 936–1013 AD) was an Andalusian Muslim surgeon, who was born in El Zahra (known today as Medina Azahara), near Cordoba, Spain. He is considered by some to be the father of modern surgery and is best known for his medical encyclopedia Al-tasreef liman ajiza an al-taaleef (The method of medicine). This work became a standard text in Europe for five centuries under its Latin title, Liber Alsaharavi de cirugia, after it was translated from the Arabic in the mid–late 12th century by Gerard of Cremona. The encyclopedia consists of 30 chapters or treatises, which cover such topics as the doctor–patient relationship, various areas of medical specialization, nutrition, the link between diet and disease, diagnosis by examination, pharmacology, and classification of diseases and their symptoms. The last section deals with surgery, and in it, al-Zahrawi argues that the surgeon requires knowledge from all other medical areas before operating. The book also contains diagrams and illustrations of the medical and dental tools that al-Zahrawi used, some of which he himself devised.
Author: Abū al-Qāsim Khalaf ibn ‘Abbās al-Zahrāwī, died 1013?

http://www.wdl.org/en/item/7478/#zoom=0.31665081394248434&centerX=0.5000482125973553&centerY=0.8128782846833911

Text is taken directly from the source cited. It is not paraphrased, but is edited for length. For example, publication information is not listed in the descriptions, but can be found by following the hyperlink.
3. Mishneh Torah
This document is widely considered the most splendid of the extant manuscripts of the Mishneh Torah, the systematic code of Jewish law produced by the 12th-century Jewish philosopher, theologian, and physician, Moses ben Maimon, better known as Maimonides. The manuscript was made by a copyist from Spain, who commissioned an artist to illustrate the work and left space in the margins for drawings, decorative panels, and illuminations. The artwork was done in Italy, possibly in the workshop of Mateo De Ser Cambio in Perugia, circa 1400. A few ornamental headings and signs of textual divisions were done in Spain. Many important textual changes in the margins of the manuscript correspond to those found in the version of this work proofread by Maimonides himself. Maimonides was born in Córdoba, Spain, in 1135. In 1160 he moved with his family to Fez, Morocco, to escape religious persecution, and eventually settled in Cairo, where he became the personal physician to the sultan and his family. He also served as the head of the Jewish community of Cairo, where he died in 1204. His works on theology, law, philosophy, and medicine, mostly written in Arabic and translated into Hebrew, Latin, and other languages, were widely influential in both the Jewish and non-Jewish worlds.

Author: Maimonides, Moses (1137?-1204)
Date Created: Around 1300 CE - 1350 CE
Language: Hebrew

http://www.wdl.org/en/item/3962/-zoom=0.8196801961104019&centerX=0.499999999999962&centerY=0.3903669724770641

4. The Book of Medicinal and Nutritional Terms
Abu Muhammad Abdallah Ibn Ahmad Ibn al-Baitar Dhiya al-Din al-Malaqi (known as Ibn al-Baitar, circa 1197–1248 AD) was an Andalusian Arab scientist, botanist, pharmacist, and physician. He was born in Malaga, Spain, and died in Damascus, Syria. He is considered one of the major scientists of Muslim Spain. His father was a veterinarian, which earned him the nickname al-Baitar, Arabic for veterinarian. Ibn al-Baitar was also trained by a pioneering Andalusian botanist called Abu al-Abbas al-Nabati. Kitab Al-jami li-mufradat al-adwiya wa al-aghdhiya (The book of medicinal and nutritional terms) is Ibn al-Baitar's best-known work. It is a pharmaceutical encyclopedia containing detailed descriptions of more than 1,400 medicinal plants, foods, and drugs and giving their therapeutic values and medicinal uses. The book also includes references to 150 earlier Arabic authors and 20 Greek authors.

Editor: Ibn al-Baytār,ʿAbd Allāh ibn Ahmad, died 1248
Date Created: Around 1197 CE - 1248 CE
Language: Arabic

http://www.wdl.org/en/item/7466/#q=Muslim+Spain&qla=en&search_page=1&view_type=gallery

Note to teachers: The first five images in this primary source set (Scholarship in Muslim Spain) come from the World Digital Library (WDL). WDL is a joint project of the Library of Congress and UNESCO (United Nations Educational, Scientific and Cultural Organization. Its mission is to make “available on the Internet, free of charge and in multilingual format, significant primary materials from countries and cultures around the world. The principal objectives of the WDL are to promote international and intercultural understanding;
expand the volume and variety of cultural content on the Internet; provide resources for educators, scholars, and general audiences; and build capacity in partner institutions to narrow the digital divide within and between countries.” We highly recommend that teachers further explore this valuable resource.

5. Cordoba, Spain, ca. 1617
Between the eighth and fifteenth centuries, Muslims called “Moors” ruled parts of what is now Spain. Córdoba became the thriving capital of the Caliphate of Córdoba that governed almost all the Iberian Peninsula. In the tenth century, Córdoba was one of the largest cities in Western Europe. The city was conquered by Christian forces under Ferdinand III, King of Castille and Leon, in 1236. The two most important buildings from the Moorish period visible in this view are the Alcazar (Palatium Regium), where Christopher Columbus received royal backing from Ferdinand of Aragon and Isabella of Castille for his voyage to the Americas in 1492, and the Mezquita (Ecclesia Maior), formerly the Aljama Mosque, remodeled as a cathedral in the early sixteenth century.

http://myloc.gov/Exhibitions/EarlyAmericas/PreContactWorld/UrbanLandscapes/ExhibitObjects/CordobaSpainca1617.aspx

While the scientific leadership of the Moors faded with the breaking of their military unity in the twelfth century, they still retained in some of their smaller kingdoms, and especially in that of Granada, a high degree of culture. The love of beauty and the spirit of romance were strong among all the Spanish Moors; and so their poetry continued long after science failed them. Poetry indeed became their main expression. Granada, the last of all their Spanish kingdoms, did not fall before the advancing Christians until 1492. Then, as our histories have so often told, Ferdinand and Isabella, the Christian rulers of Spain, conducted a holy war for the destruction of Granada. Its last fortress surrendered, and its people withdrew to Africa. There, according to a characteristically dreamy legend, they still retain the keys of their mansions in Granada, treasuring them up for the day of their triumphant return. Of the Moorish poetry which survived the fall of Granada, much was preserved by the Spaniards themselves and in the Spanish language. The victors knew how to value the spirit of the vanquished; and ballads of Moorish origin, telling of Moorish loves, long remained popular in Spain. The authors of most of these have been forgotten. The text of some of the best known of them is given here.

http://www.fordham.edu/halsall/source/moorishpoetry.asp
Scholarship 1
Scholarship 2a
Scholarship 2b
Lesson 5: Art, Architecture and Scholarship in Muslim Spain

Scholarship 4
Scholarship 5
**Verses To My Daughters**

With jocund heart and cheerful brow
I used to hail the festal morn---
How must Mohammed greet it now?---
A prisoner helpless and forlorn.

While these dear maids in beauty's bloom,
With want opprest, with rags o'erspread,
By sordid labors at the loom
Must earn a poor, precarious bread.

Those feet that never touched the ground,
Till musk or camphor strewed the way,
Now bare and swoll'n with many a wound,
Must struggle through the miry clay.

Those radiant cheeks are veiled in woe,
A shower descends from every eye,
And not a starting tear can flow,
That wakes not an attending sigh.

Fortune, that whilom owned my sway,
And bowed obsequious to my nod,
Now sees me destined to obey,
And bend beneath oppression's rod.

Ye mortals with success elate,
Who bask in hope's delusive beam,
Attentive view Mohammed's fate,
And own that bliss is but a dream.

---Prince Mohammed Ben Abad

**Serenade To My Sleeping Distress**

Sure Harut's potent spells were breathed
Upon that magic sword, thine eye;
For if it wounds us thus while sheathed,
When drawn, 'tis vain its edge to fly.

How canst thou doom me, cruel fair,
Plunged in the hell of scorn to groan?
No idol e'er this heart could share,
This heart has worshiped thee alone.

---Ali Ben Abad

**Scholarship 6**