

Digital Detectives: Recreating Medieval Baghdad using Primary Sources and Open Source 3D Printing Software

Two 60-minute class periods; 7th Grade History; 30 students

LOCATION: Milpitas, CA (San Francisco Bay Area)

KEY VOCABULARY -- Islam, Muslim, mosque, bureaucracy, Abbasids, Umayyads, minarets

INSTRUCTIONAL MATERIALS

Internet-capable devices

Copies of Handouts A-E (pdf attached)

Pens/pencils/highlighters

ENDURING UNDERSTANDING (BIG IDEA)

Rarely do the images we see in ancient and medieval history textbooks represent EXACT replicas of historical structures. More often than not, historians and artists must act like detectives, using various primary sources to help build a more complete picture of what structures, cities, and civilizations might have looked like. In this lesson, students will partake in this historical detective work.

ESSENTIAL QUESTIONS

What can primary sources teach us about the size, shape, grandeur and magnificence of Medieval Baghdad?

LEARNING OBJECTIVES

SWBAT assess the credibility of primary sources related to Medieval Baghdad and draw sound conclusions from them.

SWBAT create a digital 3D representation of Medieval Baghdad based upon various primary sources.

STANDARDS

COMMON CORE:

CCSS.ELA-LITERACY.RH.6-8.1

Cite specific textual evidence to support analysis of primary and secondary sources.

CCSS.ELA-LITERACY.RH.6-8.6

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).

CCSS.ELA-LITERACY.RH.6-8.7

Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.

CCSS.ELA-LITERACY.RH.6-8.8

Distinguish among fact, opinion, and reasoned judgment in a text.

CCSS.ELA-LITERACY.RH.6-8.9

Analyze the relationship between a primary and secondary source on the same topic.

California History Social Science Content Standards:

CST 1 - Students explain how major events are related to one another in time

REP 1 - Students frame questions that can be answered by historical study and research

REP 3 - Students distinguish relevant from irrelevant information, essential from incidental information, and verifiable from unverifiable information in historical narratives and stories

REP 4 - Students assess the credibility of primary and secondary sources and draw sound conclusions from them

REP 5 - Students detect the different historical points of view on historical events and determine the context in which the historical statements were made (the questions asked, sources used, author's perspectives)

7.2.4 - Discuss the expansion of Muslim rule through military conquests and treaties, emphasizing the cultural blending within Muslim civilization and the spread and acceptance of Islam and the Arabic language.

7.2.5 - Describe the growth of cities and the establishment of trade routes among Asia, Africa, and Europe, the products and inventions that traveled along these routes (e.g., spices, textiles, paper, steel, new crops), and the role of merchants in Arab society.

7.2.6 - Understand the intellectual exchanges among Muslim scholars of Eurasia and Africa and the contributions Muslim scholars made to later civilizations in the areas of science, geography, mathematics, philosophy, medicine, art, and literature.

BACKGROUND

On April 9, 2003, the statue of Saddam Hussein in Firdos Square came toppling down in what would come to symbolize “The Fall of Baghdad.” As it happens, most every middle school student in America was born during or after the year 2003. Their living memory of Baghdad and the Middle East has been one of militancy and violence. Using teaching strategies centered on primary sources and free 3-D printing software, this lesson will show how classrooms can recreate medieval Baghdad in all its splendor and place it on the same pedestal as Athens, Rome, and Florence.

Before teaching this lesson, teacher and students should have a working understanding of the origins of Islam and the rise of Umayyad and Abbasid caliphates. Ideally, this lesson is taught toward the end of a unit on Islam, as this in-depth look at Baghdad provides a springboard to discuss the lasting legacies of Islam in science, technology, architecture, arts, and literature.

SUGGESTED PROCEDURE

DAY ONE

- **Bellwork:** Teacher selects an artistic rendering of their choice related to the medieval city of Baghdad and projects it on the board.. Students write down three observations and two questions they have based on the picture. Short class discussion to follow.
- **Hook:** Reveal that the city is Baghdad. Then, teacher presents side-by-side photos of the destruction wrought in Baghdad during the Iraq War. The teacher explains that Baghdad was once one of the most magnificent cities in the world.
- **Direct Instruction:** Teacher explains the essential question for the lesson and gives a brief overview of the mini-project students will be pursuing over the next two classes. Teacher gives a short presentation highlighting some of the most impressive facts about medieval Baghdad (Baghdad was considered by some to be the largest city in the world during the middle ages, it was the home of the legendary House of Wisdom, etc.). Teacher explains that the objective for students will be to recreate the city of Baghdad using their knowledge of Islamic History which has been built up in previous weeks of study, as well as primary sources which give insight into the size, shape, grandeur and magnificence of the city.
- **Primary Source Analysis:** In groups of 2 or 3, students work collaboratively to analyze the five Primary Source Handouts. In addition to highlighting/underlining main ideas, students should begin sketching out what the city might have looked like based on the documents (some documents are very straightforward in their observations, others' descriptions are more implied than explicitly stated).
- **Informal Assessment:** Each student submits a response to the question "Which source was the most helpful? Why do you think so?"

HW: Have students create Tinkercad accounts, and watch the YouTube Video: "How To: Use Tinkercad 3D Design Software 101" - <https://youtu.be/sh4o9k599pQ>. Ask them to design a simple house using what the video has taught them.

DAY TWO

- **Direct Instruction:** Explain to students that many of the pictures and illustrations of ancient and medieval civilizations in our textbooks are artistic renderings based off of primary sources. Today, they will play a similar role as they use their primary sources and annotations from yesterday, and attempt to create a digital replica of medieval Baghdad in Tinkercad, a free open source (OS) 3D printing software
- **Tinkercad Activity:** Having watched the tutorial and made a basic structure the night before, students will put their skills to the test as they apply knowledge gleaned from primary source analysis yesterday. After finalizing a sketch with paper and pencil using all information possible from the sources, students infer what else might be in the city based on their knowledge of Islam and knowledge of cities in the ancient and medieval world. Finally, students create a shared Tinkercad project in which all students in the group can add shapes, structures and buildings to their city..
- **Individual Assessment:** In one paragraph, explain how each source influenced your design. In a second paragraph, explain what additional structures you added to your city to "complete the

picture.” What made you choose these?

EVALUATIONS (ASSESSMENT)

GROUP EVALUATIONS - student groups can be evaluated based on the level of analysis present for each source’s commentary. Self-assessment and group member assessments could also be beneficial, focusing on how well each group member communicated and collaborated throughout the lesson.

INDIVIDUAL EVALUATION - each student will write a two paragraph response to be evaluated by the teacher: “In one paragraph, explain how each source influenced your design. In a second paragraph, explain what additional structures you added to your city to “complete the picture.” What made you choose these?”

EXTENSIONS

If possible, have students print their designs using a school 3D printer, or speak with local high schools or universities about printing some of your students’ work.

Teacher may wish to draw connections between the Baghdad, Athens, Rome, and Florence. An example of a further question might be: “Why isn’t Baghdad as familiar to us as Athens, Rome, or Florence?”

Teachers may also wish to turn this lesson into a unit project and incorporate a grander written component (e.g. a 500 word report on some aspect of the city of Baghdad) or a presentation component where groups create slides a discuss there logic and reasoning for how their city was designed.

RESOURCES

- <https://www.tinkercad.com>
- Primary Sources: Handouts A-E
 - Documents used came Joan Brodsky Schur’s 2009 “The Baghdad That Was: Using Primary Sources to Teach World History,” published Social Education 73(1), pp 15–22.

EXAMPLE WORK

