

2016 Summer Institute on China

Dunhuang Cave Day: Schoolwide Collaboration

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GRADE LEVEL

6th/7th/8th Grade (Social Science Across All Curriculums)

GUIDING QUESTIONS

1. What legal basis or moral code should countries follow when it comes to the manuscripts taken from Cave 17 (Library Cave)?
2. How did traders and supplies crossing the Silk Road look visually on an animated map?
3. What construction methods can be used to build low-cost sand barriers to protect cities and historical sites from the damage of desertification?
4. How did Dunhuang play an important role for the various types of traders along the Silk Road?

INTRODUCTION

The Mogao and Yulin Caves in Dunhuang, China were a religious and cultural crossroad for many traders along the Silk Road in the Gansu province in China. The main focus of this lesson is to introduce students to the size and beauty of these caves with the focus being on Mogao. The Mogao Caves form a system of 492 temples that are nicknamed “The Thousand Buddha Grottoes.” This lesson plan is a combination of lessons over all subject matters in a middle school setting. At my middle school site, we call this a “Collaboration Day.”

A “Collaboration Day” is a 2-3 day event that takes place school wide

around a particular subject matter. The history/social studies teachers will teach and give historical background information to the students so they have a comfortable feel for the topic at hand. Students will then carry this information with them on the following day of school to each of their classes. There students will participate in each of the activities revolving around various features and concepts of the Mogao Caves in Dunhuang, China. This involves commitment from all teachers at the school site to participate in these 20-40 minute activities. Students are always so excited to realize their teachers actually talk to each other and see how all subjects do collaborate with each other.

OBJECTIVES

- Students will **write** a persuasive AXEXES paragraph regarding the removal of manuscripts from the Library Cave in the Mogao Caves.
- Students will **play** a version of hockey that reinforces the concepts of Enlightenment in Buddhism.
- Students will **collaborate and build** a sand barrier structure to raise awareness for the increase in desertification in both Dunhuang and around the world.
- Students will **animate** a map of the Silk Road showing the items travelling and being traded.
- Students will **graph and compare** the distances of the most famous routes in history.
- Students will **draw and create** lotus flowers to raise schoolwide interest in the lesson and for the Buddhism Unit.

UNIT LESSONS

1. **Social Science:** Prior background knowledge will include a Buddhism Unit covering the meaning of lotus flowers and the path to enlightenment. The Silk Road should have already been

explored with the students experiencing the journey of Marco Polo. Dunhuang will have been introduced using the Getty's online videos and an online tour of the Mogao Caves.

2. **Leadership:** Students will draw lotus flowers using chalk on the basketball courts in the days prior to the collaboration day. This will raise excitement and bewilder the students as to why are they there.
3. **Music:** Students will play a traditional Chinese song that has been modified to the appropriate skill level of the students. A brief introduction to the Erhu is required. Songs with the traditional Erhu may be substituted with the violin.
4. **Art:** Students will focus and sketch any part of a Dunhuang cave painting that they choose. This is to allow the student to have time to explore the murals for themselves and go at their own ability level.
5. **Math:** Students will rotate around the classroom tracking the distance of the famous routes throughout history using string and a map scale. Students will then convert the distance to the same measurement (miles or kilometers). Students will then chart the data on a bar graph to show how long the Silk Road truly was.
6. **Computers:** Students will animate a map of the Silk Road stressing the importance of how traders moved and what items were being traded. This can be done using PowerPoint or for advanced classes, various animation programs such as Adobe Animate.
7. **English:** Students will write an AXEXES paragraph taking a stance on if the manuscripts should be returned to Dunhuang, China.

8. **PE:** Students will play a version of hockey that reinforces the concepts of Buddhism and the path to enlightenment.
9. **Science:** Students will build and create a sand barrier using various materials to be introduced to the growing issue of desertification around the world. As well as the prevention of further damage to the Mogao Caves.

RESOURCES AND MATERIALS

AXES Paragraph Outline (see attached sample) PowerPoint attached with information and visuals for each activity Materials for each activity are listed in the PowerPoint Word Document – Maps of Famous Routes (Math Activity)

BIBLIOGRAPHY Pictures Taken on-site in Dunhuang, the Mogao Caves, and the Getty Museum

Information

Whitfield, Roderick, Susan Whitfield, and Neville Agnew. *Cave Temples of Mogao at Dunhuang*. 2nd ed. Los Angeles: Getty Publications, 2015. Print.

Videos

Creating Replicas of the Buddhist Caves

<https://www.youtube.com/watch?v=hK4PxrQH8ok>

World Wide Web

http://www.getty.edu/research/exhibitions_events/exhibitions/cave_temples_dun_huang/index.html

STANDARDS Common Core Standards

[CCSS.ELA-Literacy.RH.6-8.1](#)

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

7.

[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.RST.6-8.3](#)

Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

SAMPLE LESSON Science Lesson: Sand Barrier Creation

TIME REQUIREMENT

1 CLASS PERIOD (45 minute-period)

EQUIPMENT

Clear container, hair dryer, sand, cave platform built into container, popsicle sticks, paper clips, paper, tape, cardboard building base

TEACHER PREPARATION LESSON: *How to Stop Desertification from Spreading – Science Challenge* -This lesson is done after the students have been given background information by their Social Studies teacher on the Mogao Caves and the damage that has been caused by years of natural conditions. Students can have a brief discussion on what issues the rise of desertification has on society in the future with rising global temperatures.

1. Setup Activity: Place students in groups of four. Sort supplies evenly amongst the number of groups needed. This includes the popsicle sticks, tape, string, fishing wire, cardboard base, paper, paper clips, etc... Every classroom will be different when it comes to finding building materials

for the students to use. Go cheap and make sure each group has the same materials to allow for equality.

2. Pre-teach: Desertification The effects spreading deserts has on a region and the damage it has caused in many of the caves in Dunhuang.

3. Building Time: Show the PowerPoint slides for students to understand their goal. Stop the sand from falling below onto the caves. Put a timer on the board or project onto a screen. Based on the ability of your class, decide how much time should be allowed for building. 8 – 15 Minutes. Start the clock and let the students build. The only rule is that they cannot bend or alter the baseboard as that needs to be attached to the top of the caves. Encourage students to use all of the supplies and when the timer ends, hands off.

4. Gallery Walk: Allow students to walk freely around the classroom, hands behind backs to see what other groups created.

5. Performance Check: One group at a time, place the sand barrier they built into the clear container and turn on the hair dryer for 10-15 seconds. Reset after each to record how much sand got through to the platform below.

6. Reflection: Following the activity, have students reflect on what could have gone better or how they could have improved. Discuss how the teamwork was and did anyone naturally take over as a leader?

After Lesson Questions

What designs worked best? What designs did not work? These are cheap materials; would you need more than just wood to stop a sandstorm? Did you need more or less time?

Assessment

Student participation/Peer Review Sand Barrier Construction

Completion

Examples:



