



# Investigating the Legacies of the Terracotta Army

**Asian** | Education

# Investigating the Legacies of the Terracotta Army

## Unit Overview

In this project-based unit, students examine the questions, legends, and facts surrounding the Terracotta Army of China's First Emperor. Designed in conjunction with the Asian Art Museum exhibition *China's Terracotta Warriors: The First Emperor's Legacy*, the goal of this unit is to guide students through the process of inquiry using art objects to explore history, science, and art. Students take on the role of archaeologists to investigate the real-world challenges of preservation. They identify the legacies of Emperor Qin Shi Huang (shin-sherr-hwang) through role play and critical reading, and use these ideas in order to identify and celebrate the legacies of local citizens. Comparing and contrasting ancient and modern-day China introduces students to themes of continuity and change and the ways in which culture is influenced by geography, history, technology, and more.

## Unit Outline

In general, each lesson lasts 50 minutes and includes an Introduction (free-write prompt), Vocabulary Extension, and Class Activity.

Lesson 1: Decomposing Culture (Lab)

Lesson 2: So You Want to Be an Archaeologist (Simulation)

Lesson 3: Life in Ancient China (Role play, 2 days)

Lesson 4: The Terracotta Army (Jigsaw)

Lesson 5: Decomposing Culture, continued (Lab and Application)

Lesson 6: Asian Art Museum: *China's Terracotta Warriors: The First Emperor's Legacy*

Lesson 7: Preservation and Tourism (Debate and Written Assignment)

Lesson 8: Legacies that Live On (Final Project)

## Guiding Questions

How do archaeologists study the past?

- What is the underground Terracotta Army of the Qin Empire?
- What are the origins of the Terracotta Army artifacts?
- How was the tomb discovered, and what remains underground today?
- What can we infer about the production capabilities?
- What natural scientific processes present challenges to modern-day archaeology?

Who was China's First Emperor, and what was life like under his rule?

- What was life in China like before the Qin Empire?
- What strategies enabled the Emperor to unite the Empire?

What are the legacies of the Terracotta Army?

- How did the First Emperor's quest for immortality influence the design of the Terracotta Army?
- In what ways do the Terracotta Warriors live on today?

## Grade: 6

### Unit Objectives

Students will...

*know...*

- The significance of the Terracotta Army
- unique traits of China's First Emperor: those that enabled him to unite his empire
- identifying features of Chinese culture during the Qin Empire, especially as they differ or are similar to other periods in China's history, including present-day
- the definition of "legacy"
- the difference between organic and inorganic materials as pertaining to decomposition
- the difference between a physical change and a chemical change
- challenges that come with studying the past

*understand...*

- Art helps us understand how people of the past lived, what they believed, and what they valued.
- Studying the artifacts and lifestyles of the past can help us appreciate decisions we make today.
- An object's materials impacts its ability to withstand the test of time.
- There are both positive and negative impacts of tourism on the surrounding environment culturally, environmentally, and economically.

*do...*

- analyze thematic maps to make connections between geography and culture
- compare and contrast Chinese culture and its influence on geographic changes over time
- make inferences about life in the Qin Empire using archaeological evidence and simulations
- articulate opinions and observations in multiple formats
- create a legacy "exhibit" with corresponding marketing campaign
- visit the Terracotta Warrior exhibit at the Asian Art Museum

### 21st-Century Skills

This unit is particularly conducive to practicing the following skills:

- Critical thinking
- Communication
- Collaboration
- Creative problem-solving
- Information literacy

## Common Core and Content Standards Alignment

This unit moves students toward mastery of the following Common Core standards:

- CCSS.ELA-Literacy.RH.6-8.1 Cite specific textual evidence to support analysis of primary and secondary sources.
- CCSS.ELA-Literacy.RH.6-8.2 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.
- CCSS.ELA-Literacy.RH.6-8.4 Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.
- 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.6-8.9 Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.
- CCSS.ELA-Literacy.WHST.6-8.1 Write arguments focused on discipline-specific content.
- CCSS.ELA-Literacy.WHST.6-8.2 Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.
- CCSS.ELA-Literacy.WHST.6-8.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- CCSS.ELA-Literacy.WHST.6-8.5 With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.
- CCSS.ELA-Literacy.WHST.6-8.6 Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently.
- CCSS.ELA-Literacy.WHST.6-8.7 Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.

## California History-Social Science Content Standards

- 6.6 Students analyze the geographic, political, economic, religious, and social structures of the early civilizations of China.
- 6.6.5. List the policies and achievements of the emperor Shi Huangdi in unifying northern China under the Qin Dynasty.

## California Science Content Standards

- 6b. Students know different natural energy and material resources, including air, soil, rocks, minerals, petroleum, fresh water, wildlife, and forests, and know how to classify them as renewable or nonrenewable.
- 6c. Students know the natural origin of the materials used to make common objects.
- 7a. Develop a hypothesis
- 7b. Select and use appropriate tools and technology to perform tests, collect data, and display data.
- 7c. Construct appropriate graphs from data and develop qualitative statements about the relationships between variables.
- 7d. Communicate the steps and results from an investigation in written reports and oral presentations.
- 7g. Interpret events by sequence and time from natural phenomena.
- 7h. Identify changes in natural phenomena over time without manipulating the phenomena.

# LESSON 1: Decomposing Culture

## Objective

Students will classify organic and inorganic objects and create a hypothesis about what will happen to each object in different environmental contexts.

## Introduction (10 minutes)

Free-write Prompt: “Have you (or has someone you know) ever misplaced or lost something for a long time? How had it changed when you found it again? Did it look different? Did it mean something different to you than it once did? How did you feel after you found it?”

Ask students to share their responses, commenting on the ways that time and different conditions (dust, rain, animals, etc.) may make things change over time.

## Vocabulary Extension

Hypothesis = an educated prediction or explanation that can be tested in an experiment

Organic material = substances that come from human, animal, or plant sources

Inorganic material = substances that come from non-living materials

Decay = to break down or decrease in quantity or quality

Decomposer = organisms that break down dead or decaying organisms or objects

## Class Activity (15 minutes)

Pre-Lab Concept Attainment

Tell students that over the next few days they are going to conduct an experiment to study what happens to different types of objects over time. First they must classify different types of objects in different ways.

Write the word “organic” on the board. Display a series of organic materials to students (examples: paper, cardboard, piece of bread, wood sculpture, piece of cotton fabric, etc.). Inform students that all of these items are made of “organic” materials, and ask them to list properties of organic materials based on the items they see in front of them. Write student descriptions on the board, and selectively narrow down a class definition that applies for all organic materials.

Repeat the process for the word “inorganic,” using items such as a penny, a plastic pen, a clay flowerpot, a glass bottle, etc. Again, write student descriptions on the board, and selectively narrow down a class definition that applies for all inorganic materials.

Assess student understanding by holding up additional objects and having a show of hands. How many of you think this object is made of organic materials? How many of you think this object is made of inorganic materials? Provide feedback to students to solidify concept attainment of organic and inorganic materials.

## **Class Activity** (30 minutes)

### Lab

Divide class into groups of 3-4. Have each group select 1 organic and 1 inorganic material they want to use in their experiment and categorize them accurately on their Lab Worksheet (see Appendix II). Groups will need 3 of each organic and inorganic material that they choose, one for each of the 3 different test environments.

Tell students that today they are going to be storing their objects in different places and predict what will happen to those objects over the next few days. They will test by “storing” their object buried underground, leave it in the open air outside, and leave it in the open air inside.

Have groups write hypotheses using the chart on their Lab Worksheet to predict what will happen to their items in each of the conditions.

Bury/store the items in the appropriate places and leave as undisturbed as possible (except for natural phenomena) over the next few days, and ideally over a weekend.

# LESSON 2: So You Want to Be an Archaeologist?

## Objective

Students will take the perspective of an archaeologist to investigate and assemble an artifact, and to use evidence to draw conclusions about its identity and function.

## Introduction (5 mins)

Free-write Prompt: How do we learn about the past?

Ask students to share their thoughts and compile a list on the board. Inform students that of all the ways to study the past, today they are going to focus on archaeology.

## Vocabulary Extension

Archaeology = the study of human activity in the past through examination of artifacts

Archaeologist = one who studies or performs archaeology

Artifact = any object made by human beings for a specific purpose

Excavate = to dig out material from the ground

## Partner Activity (15 mins)

Hands-on Role Play

MATERIALS:

- collection of miniature clay flower pots, statues, or other objects from crafts or dollar store, painted as desired
- each “artifact” should be smashed with a hammer and the pieces collected in a Ziploc bag; some bags may contain “missing” pieces
- glue

Tell students that today they are going to be playing the role of archaeologists. They will receive an artifact that they must put back together for display in a museum. Distribute one Ziploc bag and bottle of glue per team. Have them work to reassemble their object.

When complete, have students work to create an “exhibit card” for their item, explaining what they believe it is, what they think it was used for and by whom, and any significance in the color or design.

## Class Activity (15 mins)

Gallery Walk and Discussion

When time is called, have students display their work on their desk along with the exhibit card and walk around the room to view other students’ artifacts, observing and reading about each item.

\*Teachers may use this time to talk about museum etiquette (e.g., “look, don’t touch,”) and have students practice in this classroom gallery before visiting the Asian Art Museum.

After students have viewed the artifacts, discuss what was challenging about being an archaeologist. Ask students what challenges they think professional archaeologists face when they try to uncover and piece together objects from 2000 years ago.

### **Class Activity** (10 minutes)

#### Discussion

Ask students to look around the classroom and list some organic and inorganic objects. What might survive in 1,000 years to tell our story to the archaeologists of the future? A binder made of plastic with metal rings might survive, but will the notes taken on the paper inside survive? Will a lunchbox survive? How about the lunch inside it? Will the computer still work? What will happen to our skeletons? To our clothes? To our desks?

Will archaeologists recognize our building as a school? Just like you had to make predictions on what your clay artifact was used for, archaeologists of the future will have to make predictions about what our school was used for, without knowing it was a school. What do you think they will say?

### **Homework**

Students should complete the Archaeologist of the Future worksheet (see Appendix III) to identify organic and inorganic objects from their home that they believe future archaeologists will find particularly interesting.

# LESSON 3: Life in Ancient China

## Introduction (5 minutes)

Free-write Prompt: “Imagine you are the leader of a country. What would you want to accomplish? How will you know if your people are happy? What will you do if people do not obey you?”

Ask for a couple students to share their ideas, then introduce the day’s lesson by stating that today students will be learning about a very powerful man in China, Ying Zheng, who became a leader when he was only 13 years old!

## Vocabulary Extension

Feudal system = a system of government in which nobles serve a king and are rewarded with land which is worked by peasants

Noble = someone of royal or privileged status

Peasant = a farmer or laborer who serves a noble

## Class Activity (25+ mins)

### Role Play

Explain that students will be learning what life was like in ancient China through a role play activity. Divide students into groups of 5-6 each and assign each a region in the Qin dynasty. Refer to map to allow students to see geographic features of their region. (Save 1-2 students to play the role of Emperor Qin and his prime minister, Li Si).

Each group should accomplish the following tasks:

- Design a system of money\*
- Create units of measurement (distance and volume)
- Invent an alphabet (or, if short on time, invent at minimum some basic words such as “hello,” “good-bye,” “thank you,” “that’s not fair,” “how much?” etc.)
- Preferred method of transportation (provide maps to assist student decisions, drawing awareness to features like rivers, mountains, etc.)

\*Inform groups that their currency will be a candy or bean (provide each group with a different candy/bean), so their monetary system should be planned accordingly.

While groups are working, pass out role cards (see Appendix IV) so that 1 member of each group receives the “Noble” card, and all others receive “Peasant.” Instruct students to remember their roles but not to share them with each other at this time.

Also distribute various candies/beans (in Ziploc bags or small paper cups) to each student. Each student should receive approximately the same amount of candies.

Inform students that *today, the classroom represents different parts of China before Emperor Qin came to power. The goal in this role play is to understand what challenges*

*Emperor Qin would have to overcome. One of the first things to understand about pre-Qin China is that it operated under a feudal system. This means that everybody in the district reported to one noble (who subsequently reported to the king by serving in the military and other duties). Everybody else was a peasant, with very limited rights, who served the noble. I have already assigned one member in each of your groups to be the noble. So, as your first task, peasants, please pay 3 candies to your noble, to thank him/her for protecting you and your land.*

Next, ask the nobles in each group to have their peasants trade with another group. Establish how much the noble hopes to get (using the group's currency or units of measurement), and review the trading language that peasants should use. Nobles should also create some incentives for their peasants:

- If peasants return from a successful trade within 30 seconds, they will be rewarded x number of candies as a reward
- If peasants are slow in returning from a trade, or are unsuccessful and do not come back with the requested amount of candy, they must pay the noble a penalty tax of y number of candies from their own personal stash.

Have students attempt to trade candy with each other, reminding them to stay in character using only their region's established language. Let play continue 1-2 minutes, depending on student engagement. Encourage escalating situations as they evolve.

\*Teacher could even re-arrange desks to make navigating for trade physically challenging to simulate the poor roadways that existed pre-Qin.

3. After 2-4 minutes, send all students back to their nobles to pay relevant taxes.

#### 4. Discussion

- Peasants, how was your quality of life? Did you like reporting to your noble? What were the advantages and disadvantages?
- Nobles, how was your quality of life? What challenges did you face?
- Peasants, what was difficult about trading with peasants from another land?
- Ask the student(s) who were selected to be Emperor Qin and Li Si for their observations: What would have made the trading session go more smoothly?

*The scenes that we just acted out are very similar to life before the Qin dynasty in China – there were lots of small kingdoms using the feudal system that each had their own systems of money, measurement, language, and rules. You might say that things were frustrating and not much was accomplished. This is what Emperor Qin inherited when he came into power. Many of the problems that we identified in our discussion are problems that Emperor Qin set out to solve right away: he made everybody use the same language, the same currency, the same units of measurement, and he even made everyone use a standard axle length on their wagons so that the roads could be improved throughout China.*

## LESSON 3, Day 2

### Introduction (5 mins)

Free-write Prompt: List as many facts as they can remember about life in Qin China.

### Class Activity (20 mins)

Role Play, continued

Inform students that Ying Zheng became the ruler of his state when he was thirteen. As we saw yesterday, we know that life in China was unstable. Using a strong military and by advancing technology, Ying Zheng eventually took over 35 additional states and declared himself China's first emperor! From here on, we will refer to Ying Zheng as Emperor Qin Shi Huang (chin shih hwong), or Emperor Qin. Today we will find out how Emperor Qin unified these warring states and created the empire of China.

Ask the students who were selected to be Emperor Qin (and/or Li Si) yesterday to select which currency they would like to use, and redistribute candy/beans to each group accordingly (may need additional candy). Emperor Qin should also select the language everyone will use (English is a good choice for purposes of the simulation) and unit of measurement.

Distribute new role cards to students so there is 1 civilian leader, 1 military leader, and 1 spy in each group. The rest remain peasants.

**Secret Councils:** Emperor should host 3 secret councils:

- Spies. Have the emperor establish an arbitrary rule what s/he wants the spies to look for in his/her group (e.g., people with brown eyes, people eating their candy, people wearing blue jeans, people with glasses, etc.). The spies should not let on to their group that that is what they are looking for, but simply "blend in" with the other peasants. Emperor should tell spies: "Your job is to look for peasants with \_\_\_\_. Report names back to me and I will tax them."
- Civilian leaders. Instruct each civilian leader that they will escort their peasants to "trade" with another group. Emperor should tell civilian leaders: "Your job is to send your peasants to trade with another region so that both sides are happy."
- Military leaders. Military leaders will be in charge of overseeing the construction of a great wall to protect the newly united country. Emperor instructs military leaders: "Your job is to send 1 peasant to help build my wall."

Play should continue for 1-2 more rounds, and in each round the Emperor gives a new directive to spies, civilian leaders, and military leaders (see example below), or until peasants have been redistributed enough to provoke discussion.

Round 2 example:

- Spies seek a different characteristic/behavior to report to Emperor
- Civilian leaders: Assign peasants choice in profession: farmer or silk-maker. If a peasant doesn't want either profession, or waits too long in making a decision, send them to the wall.
- Military leaders: "Force" all wall-builders to maintain a physical task (e.g., one pushup every 30 seconds, hold a stack of textbooks for the duration of the exercise, etc.)

Thank students for their participation in this role play activity. Have them call out words or short phrases that characterize the type of person and ruler they understand Emperor Qin to have been based on the activity. Generate a list of these words on the board and save for tomorrow's lesson.

**Individual Activity** (10 minutes)

Checkpoint may be done as individual writing assignment or class discussion. Distribute Role Play Exit Tickets (see Appendix V) to each student to gauge comprehension during role play activity. Be sure to review student answers before the next lesson to target any misconceptions.

# LESSON 4: The Terracotta Army

## Objective

In groups, students will research and present information about the First Emperor's accomplishments and legacy.

## Introduction (5 min)

Free-write Prompt: Think about the role playing we did yesterday. Now that Emperor Qin has all of China on the same page, brainstorm what he might do with his "free time."

## Vocabulary Extension

(from the Jigsaw readings)

Chariot = small carriage drawn by a horse

Ceramics = the art of making and decorating pottery (inorganic, nonmetallic materials)

Tumulus = an ancient burial mound

Centralize = to control activities under a single authority

Conquest = gaining control of a place or people, often by use of military force

Mausoleum = a building for tombs

Regime = period of rule by an authoritarian government

Prestigious = inspiring respect and admiration

Hierarchy = a system in which people are ranked, some people having more authority than others

Entomb = to place into a tomb

Immortality = the state of living forever, never dying nor decaying

Millennia = plural of millennium (millennium = one thousand years)

Ingenuity = cleverness

Arsenic = a poisonous chemical

Sacrifice = an act of slaughtering an animal or person or surrendering material possessions as an offering

Inhumane = lacking compassion during suffering

## Class Activity (10 min)

Discussion

Ask students to share what they think Emperor Qin's daily life might look like once he got all of his ruling systems in place. Then expand the discussion to think about legacy. What is a legacy? Ask students to contribute to a class definition of legacy and write it on the board. Then, based on the role play from the previous lesson, ask students to identify Emperor Qin's legacy – which of his ideas do they think are still in place today?

## Class Activity (40 min)

Jigsaw, Part 1 – Expert Groups

Introduce the research activity by explaining that students will be exploring one of Emperor Qin's greatest legacies, the Terracotta Army. Give a brief overview by showing

some photos to students, a map of the believed tomb structure, and providing a succinct summary of its original purpose and design (see Appendix VI). Explain that students will learn the details of who, what, where/when, and why about the Terracotta Army in groups, and later teach what they learn to their peers.

Divide students into “expert groups” (teacher should pre-select these groups and may structure based on how well students work together, and/or by ability). Assign each group a topic (see below) and give them their expert article to read together (provide enough copies for each member of the group). Each student’s goal should be to become an expert on their group’s topic because they will each be teaching other students about this material. They should use the Expert Group Planning Guide (see Appendix VII) to fill in notes about their topic, as this will guide their talking points when they meet with a new group. Expert groups should be encouraged to talk to each other, discussing their article and deciding which facts are most important to communicate when they meet with their new group.

\*Elementary teachers may adapt this activity by providing shortened summaries of the articles for students to read and/or providing close passage notes to help students identify important information from the text.

\*\*MS/HS teachers may adapt this activity by additionally asking expert groups to come up with 1-2 quiz questions on their topic to be included in a class-made quiz and administered later in the week. This type of quiz not only helps groups to decide what is most important in their reading, but also empowers students to have a say in what they feel is important to know – a great 21st century skill.

WHO (medium difficulty)

“Ancient China: Three tomb excavations” (excerpt from [http://education.asianart.org/sites/asianart.org/files/resource-downloads/ancient\\_china.pdf](http://education.asianart.org/sites/asianart.org/files/resource-downloads/ancient_china.pdf))

Who were the builders that created his Terracotta Army? How many builders were there, and how did they become chosen for the job?

WHAT (medium difficulty)

“The Terracotta Army of the First Emperor” (<http://education.asianart.org>)

Provide a description of what exactly is included in the Terracotta Army. What are the soldiers made of, and how did they look different in Emperor Qin’s time than today?

What was the method for producing so many Terracotta soldiers so quickly?

WHERE/WHEN (less difficult)

“Secrets of the Dead: China’s Terracotta Warriors” introduction (<http://www.pbs.org/wnet/secrets/featured/chinas-terracotta-warriors-about-this-episode/812/>)

Where were the Terracotta Warriors discovered?

When were the Terracotta Warriors discovered?

When were the soldiers built, and how long did it take?

WHY (more difficult)

“Religious Funerary Practices in Ancient China” (<http://education.asianart.org/explore-resources/background-information/religious-funerary-practices-ancient-china>) and excerpt from “China’s Terracotta Warriors program transcript” (<http://www.pbs.org/wnet/secrets/transcripts/chinas-terracotta-warriors-program-transcript/840/>)

Why did Emperor Qin wish to be buried in such an elaborate manner?

What did the ancient Chinese believe about the afterlife that influenced Qin’s design? What similarities do you see between Chinese beliefs of the afterlife and those of other ancient civilizations?

## **Jigsaw, Part 2 – Jigsaw Groups**

Students will rotate into new groups to teach each other what they have learned and learn from others. Remind students that everyone is responsible for learning all of the information. (Teacher should pre-select jigsaw groups so that at least one member from each expert group is in each group).

Give students adequate time to teach members of their new group the information. Suggested order of presentations is What, Where/When, Who, Why. Teacher may prompt students when the next presenter should begin.

Students should take notes on their Jigsaw Notes handout as their peers present (see Appendix VIII).

## **Homework**

Reflection

Emperor Qin had several enduring legacies, the Terracotta Army among the most famous. Have students compose a brief reflection paper (or poem or art collage) describing what they hope their legacy (or legacies) will be, who it will impact, and how. (For students who need more support, ask them to begin by identifying the legacies of one of their role models or favorite celebrities or athletes.)

*This reflection will serve as the beginning to the final project continued in Lesson 8.*

# LESSON 5: Decomposing Culture, continued

## Objective

Students will practice close looking and check their hypothesis by observing the changes in their organic and inorganic items and recording detailed observations.

## Introduction (15 mins)

Mini-lesson

Present an ordinary object and ask students to write a description. After 2 minutes of writing, ask them to look at their description and introduce a new rule: they are not allowed to use the name of the object. (Example: for a blueberry muffin, they are not allowed to use the words “blueberry” or “muffin”). After 2 more minutes of writing, ask students to trade descriptions with a partner to check that “taboo” words have not been used. Have them work together to improve each other’s writing so that if the object were to disappear, the description is clear enough for the reader to picture the object. Ask students to think about size, texture, color, and comparisons to other objects.

Share descriptions. Relate the exercise to the way that scientists need to be very detailed in their descriptions to provide the most accurate information possible.

## Vocabulary Extension

Physical change = a change that alters an object’s physical appearance, such as its shape (example: glass breaking)

Chemical change = a change that alters an object’s chemical composition to create a new or different substance (example: rust on a nail)

## Class Activity (30 mins)

Lab

Redistribute Lab Worksheets to students and inform them that it is time to observe what has happened to the items they left a few days ago. Carefully uncover items that were left in the dirt and retrieve objects from outside and display them for students to view.

In their lab teams, students record detailed observations and identify the physical and/or chemical changes that occurred to their organic and inorganic items.

Teams present their findings to the class to be recorded in a class data table (such as the one below) to indicate the object, where it was stored during the experiment, whether it underwent a physical and/or chemical change, and additional notes.

Discuss: How might you expect the Terracotta Warriors to have changed?

Object	Location	Physical change?	Chemical change?	Notes

**Individual Activity** (10 mins)

K-W-L Chart

Based on the previous days' activities, have students predict what they may see while touring *China's Terracotta Warriors: The First Emperor's Legacy* completing the K and W columns in the K-W-L chart (see Appendix IX).

In the K column, students should write things that they know or remember from the past couple days about archaeology, Emperor Qin, and/or the Terracotta Army.

In the W column, students should write things that they *want to know* – questions that they hope will be answered when they visit the exhibit.

The L column will be completed in the museum.

# LESSON 6: The Terracotta Warrior Exhibit at the Asian Art Museum

**Objective:** Students will explore the museum or online exhibition to research and complete their K-W-L charts.

Re-distribute students' K-W-L charts to them so that they may fill in the L column with things that they learn while touring the museum, especially in answer to the questions they generated in the W column.

At the end of the visit, check in with students by asking them to share what they learned today. What were they surprised by? What puzzled them? Did they learn anything that they had already talked about in class? Produce the list of words that students used to describe Emperor Qin in Lesson 3; do they want to revise this list based on what they learned today?

\*Virtual Tour Option (for teachers who will not visit the Asian Art Museum in person): Visit a computer lab with students to view the Terracotta Warrior exhibit online: <http://terracotta-warriors.asianart.org/exhibitions/terracotta-warriors>

Assign students topics to explore or simply have students browse through the online exhibits and focus on the following suggested topics:

- Important symbols and elements (horse, dragon, phoenix, water)
- Organization of the tombs and burial grounds
- Weaponry
- The underground army
- Chariot components
- Details of warriors (Armoured General, Armoured Military Officer, Standing Archer, Armoured Kneeling Archer, Cavalryman, Cavalry Horse, Charioteer, suit of armor and helmet, sword, crossbow trigger mechanism, facial features, pigment, etc.)

The K-W-L chart may still be used for the virtual tour for students to record what they learn from the online exhibits.

# LESSON 7: Preservation & Tourism

## Objective

Students will debate the pros and cons of excavating archaeological sites and tourism, and write a persuasive letter to the Chinese government advocating for the increase or decrease of excavation and tourist activity.

## Introduction (10 minutes)

Free-write Prompt: “A thousand may die so that a million may live.” Remind students that tremendous sacrifices were made for the burial tomb of one man. Emperor Qin justified this sacrifice by saying “a thousand may die so that a million may live.” What do you think? Is it worth it? Why or why not? Students should justify their thinking.

After about 5 minutes of writing, ask students to share their thoughts. As students begin to take sides, have them divide themselves in different sides of the room based on whether they agree or disagree.

## Vocabulary Extension

Preservation = the act of preserving something, or saving it for future use

Monochrome = being of one shade of color

Disintegrate = to break into pieces as a result of decay

Plaster = a mixture of cement and water for spreading on hard surfaces to seal cracks

Sustainability = conserving an ecological balance at a certain rate for an extended period of time

Tourism = vacationing or visiting places of interest outside one’s hometown

## Class Activity (15 minutes)

Reading and Discussion

Introduce students to the concept of preservation by reading the National Geographic article “Terracotta Warriors in Color“ <http://ngm.nationalgeographic.com/2012/06/terra-cotta-warriors/larmer-text>.

Discuss:

- What techniques are scientists using today to help preserve the soldiers?
- In 30 years’ time technology may have improved even more, revealing an easier way to preserve the excavations. Does that mean we should stop excavating until we discover that method?
- What “mistakes” from the past do you think archaeologists have learned from?

Brainstorm:

*As exciting as it would be to visit the Terracotta Army in China, there are pros and cons when it comes to being a tourist. On the one hand, the country of China benefits from the money they make from tourists who come to visit. On the other hand, with so many people moving in and out of the site that bring their germs and bacteria from all over the world, mold and fungi have started growing on the exposed soldiers, potentially ruining them for future study! What other positive or negative impacts of being a tourist can you think of?*

Draw a two-column chart on the board and have students brainstorm both positive and negative impacts of tourism both in general and with particular regard to the Terracotta Army. As needed, ask prompting questions about pollution, littering, money, interfering with scientists' work, germs and bacteria, etc.

### **Group Activity** (20 minutes)

Debate

Reveal to students that Emperor Qin's tomb – the place where the Emperor himself is buried - has not yet been excavated. No one is certain what lies in his tomb, but it is believed to be a replica of the palace he resided in while living. The soldiers that have been restored are on display to the public, and some of the soldiers travel all over the globe as part of a traveling exhibit. Despite this, and despite the fact that other rulers have been unearthed and on display in museums (for example, the mummy of King Tut), the tomb of Emperor Qin remains a mystery.

Think about all the people who might be interested in knowing what lies in this tomb: scientists, archaeologists, historians, the Chinese government, museums, students like you, and people all over the world.

Your task today is to create a letter on behalf of one of these groups of people and compose a letter to the Chinese government either a) convincing them why they should begin excavation of the Emperor's tomb, or b) urging them not to begin excavation of the tomb. Think about all the things that we have discussed that could help you convince them that your idea is the best course of action.

(As needed, teacher should review an appropriate rubric for evaluation, standard letter-writing form, etc.)

By the end of class, students should have a preliminary draft or outline of their position statement that clearly states their side and their primary supporting reasons. Work may be completed for homework or continued the next day in class.

# LESSON 8: Legacies that Live on

## Objective

Students will diagram the influences and legacy of the First Emperor and create a 21st century genome of a local legacy based on similar concepts of influences and inspiration.

## Introduction (10 mins)

Free-write Prompt: “What are some things that have been left behind in your family? List as many things as you can think of.”

Have students share their lists. Take note of the different types of “things” that can be left to a family – physical objects such as a photo or piece of furniture, intangible objects such as a grandfather’s sense of humor or a father’s athletic ability, professions or lifestyles such as the family pizzeria, or even inspiring things such as kindness and generosity.

## Vocabulary Extension

Legacy = something that is handed down over time

## Final Project (1-3 days)

Begin by reviewing the concept of a legacy. Many of the things that students wrote about in their free-writes could be considered legacies.

What legacies did Emperor Qin leave behind? (unified Chinese language, currency, Great Wall, Terracotta Army, mysteries, etc.)

Introduce the concept of a genogram by mapping out the cultural/geographic influences of Emperor Qin (see Appendix X). Talk students through your thinking as you draw the diagram on the board.

For their final projects, students will be creating a mini exhibit and marketing campaign for a local legacy (either themselves, their family, or their town). There are 3 primary elements to this project:

- Create a genogram representing all the cultural/geographic influences impacting the person or town
- Select 5-7 “artifacts” that students believes will be important indicators of the person’s or town’s legacies.
- Create a 21st century marketing campaign (e.g., promotional video, website, social media plan, etc.) to promote the exhibit and encourage visitors to tour, participate in, or learn from the exhibit.

Sufficient time should be allotted for students to plan and create their projects, as well as present and view each other’s work.

### Note to Teachers: Differentiation

Student choice is especially important in final assessment. Because of the range of assignments suggested for this unit's final project, it will be important for the teacher to create and review with students the grading rubric that will be used to evaluate their work so that expectations are clear. Additionally, providing a range of acceptable options can help teachers guide students toward choosing the most appropriately challenging elements of each assignment. In the example table below, a student must choose one of three choices in Column A. Column B is required from everyone. From Column C, they must choose two items. If a student wants to work with a partner, rather than individually, they must choose 3 items from Column C. By providing multiple options, you can appeal to students' interests, abilities, prior knowledge/experience in ways that ask them to apply their new knowledge while still measuring the same objectives.

Column A (Choose 1)	Column B (Required)	Column C After creating your exhibit... (If working by yourself, choose 1) (If working with a partner, choose 2)
Create an exhibit that showcases what your legacy will be 100 years from now.	Make a genogram that maps all the influences for your person/town that will inspire your exhibit.	Design an exhibit website highlighting important artifacts and enticing the public to visit.
Create an exhibit that celebrates the legacy of one of your family members.	Select 5-7 important artifacts for your exhibit about your person/town.	Invent a social media plan for the month leading up to the grand opening of the exhibit to get tourists excited about visiting.
Create an exhibit that shows the legacy of your town.		Create a preview or trailer video for your exhibit.
		Design an attractive poster or brochure using effective graphic design to promote the exhibit.
		Write the script for a museum docent who will be leading future students through the exhibit.

## APPENDIX I. Vocabulary Quiz

**Directions:** Match the word on the left with its definition on the right.

	To dig out material from the ground	a. Hypothesis
	The state of living forever, never dying nor decaying	b. Organic material
	An educated prediction that can be tested	c. Inorganic material
	A small carriage drawn by a horse	d. Decay
	A system of government in which nobles serve a king and are rewarded with land worked by peasants	e. Archaeology
	The art of making and decorating pottery	f. Artifact
	The act of saving something for future use	g. Excavate
	The act of conserving an ecological balance over time	h. Feudal system
	A building for tombs	i. Physical change
	To place into a tomb	j. Chemical change
	The study of human activity in the past	k. Chariot
	Any object made by humans for a specific purpose	l. Ceramics
	Substances that come from humans, animals, or plants	m. Mausoleum
	Substances that come from non-living materials	n. Entomb
	Being of one shade of color	o. Immortality
	To break down or decrease in quantity or quality	p. Sustainability
	A change that alters an object's appearance or shape	q. Preservation
	A change that alters an object's composition, creating a new or different substance	r. Monochrome

## APPENDIX II. Lab Worksheet

Name \_\_\_\_\_

Our experiment question is \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

### Materials

Organic	Inorganic

### Hypothesis

If \_\_\_\_\_ and \_\_\_\_\_ are left

\_\_\_\_\_,

\_\_\_\_\_, and

\_\_\_\_\_ for \_\_\_\_\_ days, then

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_.

### Results:

**Conclusion:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_.

## APPENDIX III. Archaeologist of the Future Worksheet

Name \_\_\_\_\_

Identify 5 objects in your home made from *organic* materials that you believe future archaeologists will find interesting.

1.

2.

3.

4.

5.

Identify 5 objects in your home made from *inorganic* materials that you believe future archaeologists will find interesting.

1.

2.

3.

4.

5.

Choose at least 3 of the objects you listed above. Now pretend you are an archaeologist from the future and you've never seen these objects before! Write a diary entry in which you describe the objects and try to figure out what these objects were, what they were used for, and by whom. Be as detailed as possible. (Use a separate sheet of paper, if needed).

## APPENDIX IV. Role Play Role Cards

Noble	Noble	Noble
Noble	Noble	Noble
Peasant	Peasant	Peasant
Peasant	Emperor	Prime Minister
Spy	Spy	Spy
Spy	Spy	Spy
Civilian Leader	Civilian Leader	Civilian Leader
Civilian Leader	Civilian Leader	Civilian Leader
Military Leader	Military Leader	Military Leader
Military Leader	Military Leader	Military Leader

## **APPENDIX V. Role Play Exit Ticket**

Name \_\_\_\_\_

What problems did Emperor Qin inherit?

How did he solve these problems to unite China?

What do you like about his solutions and why?

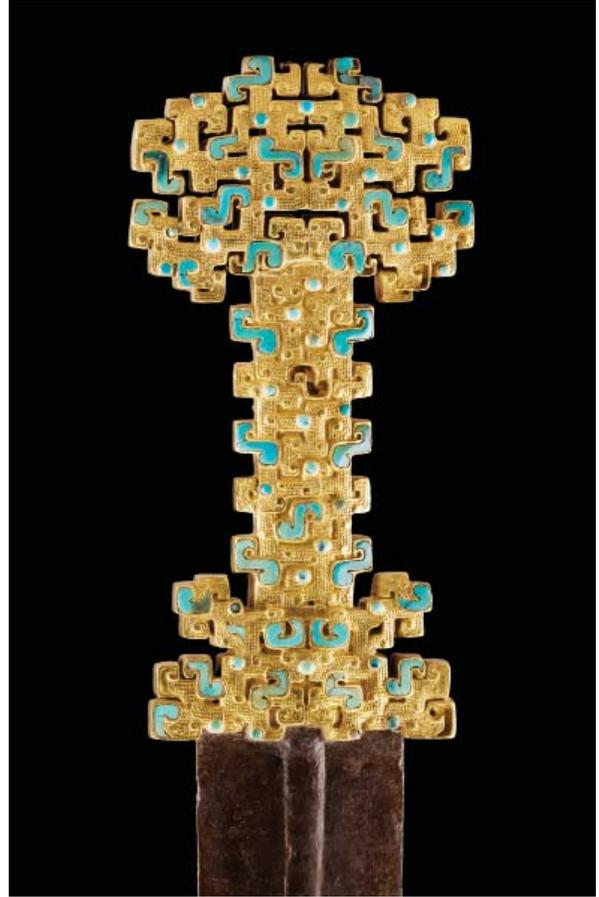
What do you dislike about his solutions and why?

Emperor Qin created many strict rules to keep his people in order. Despite this, his reign only lasted 15 years. Predict what else he will accomplish in this short amount of time.

## APPENDIX VI. Terracotta Army Overview Slides

Emperor Qin Shi Huang wanted an army of clay soldiers to be buried with him to protect him in the afterlife. The Terracotta Army contains over 8,000 clay soldiers, and thousands of animals, weapons, and other artifacts.







## **APPENDIX VII. Expert Group Articles and Planning Guides**

### **WHO**

NAMES \_\_\_\_\_

TITLE OF ARTICLE \_\_\_\_\_

Important facts:

Who was the First Emperor of China? Who were the builders and artists that created Emperor Qin's Terracotta Army?

How many builders were there?

How were the builders chosen for this job? What happened to them?

## Expert Group Articles and Planning Guides

### WHAT

NAMES \_\_\_\_\_

TITLE OF ARTICLE \_\_\_\_\_

Important facts:

Provide a description of what exactly is included in the Terracotta Army.

What are the soldiers made of?

How did the soldiers look different in Emperor Qin's time, than today?

What was the method for producing so many Terracotta soldiers so quickly?

## Expert Group Articles and Planning Guides

### WHERE/WHEN

NAMES \_\_\_\_\_

TITLE OF ARTICLE \_\_\_\_\_

Important facts:

Where was the Terracotta Army discovered?

When was the Terracotta Army discovered, and how?

When were the Terracotta soldiers built, and how long did it take to build them?

## Expert Group Articles and Planning Guides

### WHY

NAMES \_\_\_\_\_

TITLE OF ARTICLE \_\_\_\_\_

Important facts:

Why did Emperor Qin wish to be buried in such an elaborate way?

What did the ancient Chinese believe about the afterlife that influenced Emperor Qin's burial design?

What similarities do you see between Chinese beliefs of the afterlife and those of other ancient civilizations?

## APPENDIX VIII. Jigsaw Notes

Name \_\_\_\_\_

Directions: As your classmates teach you, write down important facts that you learn. The questions provided will help you identify important information.

### THE TERRACOTTA ARMY

Who?

*Who was the First Emperor of China? Who were the builders that created Emperor Qin's Terracotta Army? How many builders were there? How were builders chosen for the job? What happened to them?*

What?

*What exactly is included in the Terracotta Army? What are the soldiers made of? How do the soldiers look different today than in Emperor Qin's time? How did they produce so many soldiers so quickly?*

Where and when?

*Where was the Terracotta Army discovered? When was the army discovered, and how? When were the soldiers built, and how long did it take to build them?*

Why?

*Why did Emperor Qin wish to be buried in such an elaborate manner? What did the ancient Chinese believe about the afterlife?*

**APPENDIX IX. K-W-L Chart**

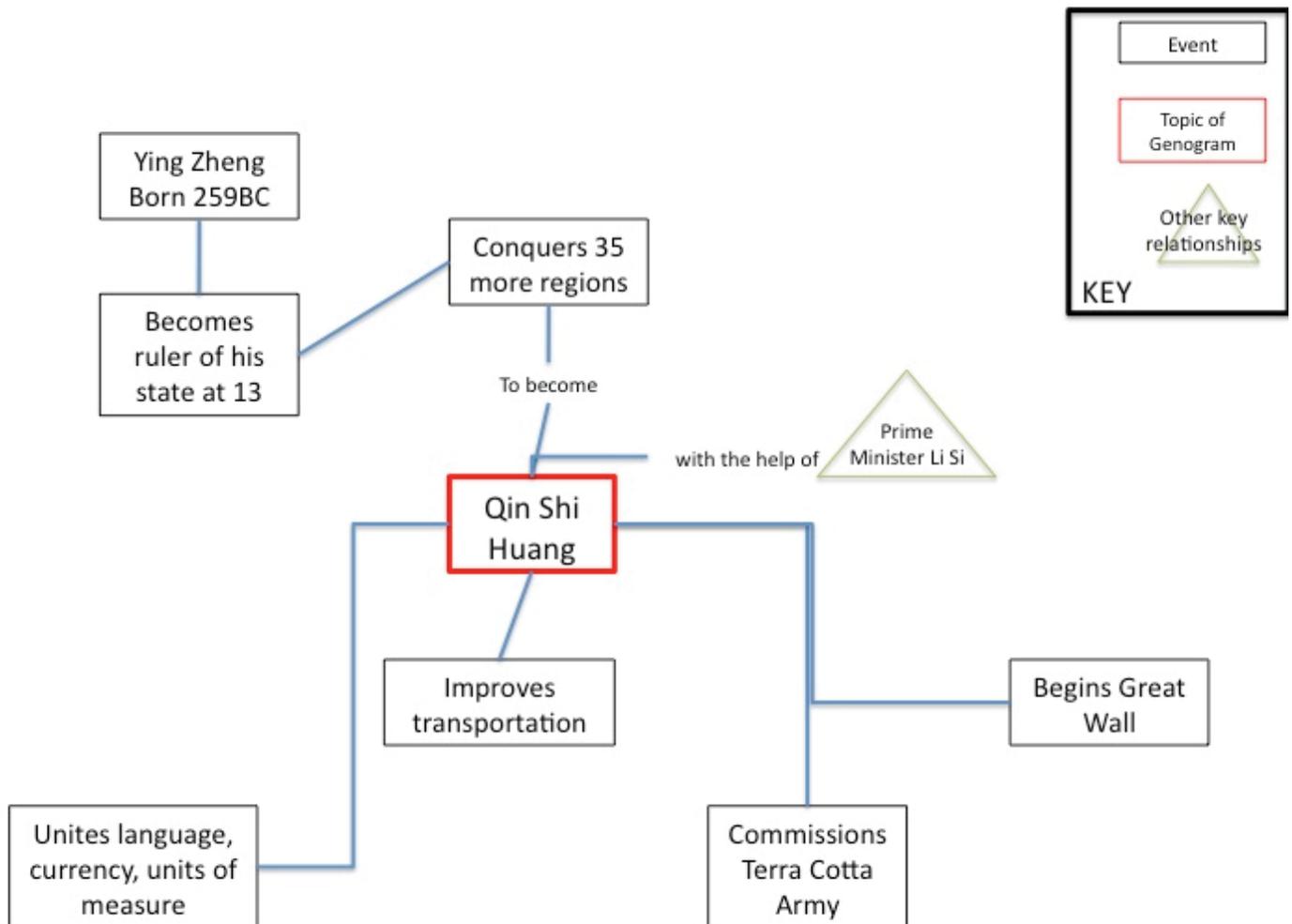
K These are things I <b>K</b> now about the Terracotta Army	W This is what I <b>W</b> ant to know about the Terracotta Army	L This is what I <b>L</b> earned about the Terracotta Army

## APPENDIX X. Sample Genogram for Emperor Qin

A genogram is a graphic representation of a family tree that displays detailed data on relationships among individuals. It is typically used to analyze hereditary traits and the behavioral patterns within relationships (for more information, see <http://www.genopro.com/genogram/>).

We have adapted the genogram concept for purposes of this activity to include not just people, but also events in order to pictorially display key events, players, and contexts of a person's life.

This simplified version of Emperor Qin's genogram offers a starting point for instructors to explore the Emperor's life with their students. It may be added to or altered as the class sees fit.



## APPENDIX XI. RESOURCES

Dien, Albert E. *Terracotta Warriors : Guardians of China's First Emperor*. [Santa Ana, California, Houston, Texas & Washington, DC]: The Bowers Museum, The Houston Museum of Natural Science and The National Geographic Society, 2008.

Liu, Yang. *China's Terracotta Warriors : The First Emperor's Legacy*. With contributions by Edmund Capon, Albert E. Dien, Jeffrey Riegel, Eugene Wang & Yuan Zhongyi. Minneapolis: Minneapolis Institute of the Arts, 2012.

Portal, Jane. *The First Emperor : China's Terracotta Army*. With the assistance of Hiromi Kinoshita. Cambridge, Massachusetts : Harvard University Press, 2007.

For additional multimedia resources, visit the Asian Art Museum Education Website: [education.asianart.org](http://education.asianart.org)

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