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Misconceptions can impede learning and, therefore, must be identified and dispelled before more accurate perceptions can be acquired by the learner (Bransford et al. 2000). MISCONCEPTION ALERTS are embedded in the learning cycle and help teachers detect and change misconceptions about archaeology before moving on to new material.

Unit Organization

The Unit Organizational Flow Chart (Figure 2, page 9) shows the basic flow of the unit. The Unit Overview (page 10–11) outlines the enduring understandings, essential questions, what students will do, what students will learn, and assessments for teachers.

• **WARM-UP LESSON**: What Is Archaeology — Introduces archaeology and the archaeological site that the students will be studying and provides a way to identify misconceptions about archaeology.

• **LESSON ONE**: Students watch a video on the Roman Villa Oplontis and the human remains discovered there to inform a persuasive essay on the ethics of studying ancient human remains.

• **LESSON TWO**: Students meet Pliny the Younger, their tour guide of a Roman villa, and analyze a wall painting to better understand the geographic location of the villa site the students will be studying.

• **LESSON THREE**: Students compare the eruption of Vesuvius to letters describing it written by Pliny the Younger through a close-read.

• **LESSON FOUR**: Students observe a wall painting and use evidence to answer questions about the past.

• **LESSON FIVE**: Students identify lines of symmetry in Roman mosaics, solve a real-world problem, and create their own mosaic!

• **LESSON SIX**: Students identify ancient Roman coins discovered at the Roman Villa Oplontis to create a timeline of Imperial Rome.

• **LESSON SEVEN**: Students compare and contrast homes in Roman times to modern homes then play a board game to learn the Latin words for the rooms in a Roman villa.

• **LESSON EIGHT**: Armed with archaeological concepts and analytical techniques, students explore issues of stewardship and protection of archaeological sites and artifacts. Students learn about United States laws and international conventions that protect archaeological sites and artifacts.

• **FINAL PERFORMANCE OF UNDERSTANDING**: Students create a news broadcast on the natural disaster of the A.D. 79 Vesuvius eruption.
Essential Questions

- What are the ethical constraints on excavating, studying, and displaying human remains?
- How should human remains be treated and displayed?
- How did the ancient landscape of Mount Vesuvius shape the lives of Roman people?
- Did ancient Romans know Mount Vesuvius was a volcano?
- How did Mount Vesuvius erupt in A.D. 79?
- How do archaeologists use primary sources to interpret the past?
- How do archaeologists use frescoes to analyze how people lived in the past?
- What can frescoes in villas teach us about Roman culture?
- Why would a Roman create a permanent wall painting?
- What can the imagery depicted in mosaics tell us about life in ancient Roman culture?
- How is symmetry used in mosaics?
- Why do you think it is important for archaeologists to find imperial coins?
- How did Roman emperors use coins?
- How can investigating a Roman villa help us understand Roman people and culture?
- Why is it important to protect and preserve archaeological sites?
- How can we protect archaeological sites?

START HERE

WARM-UP
What is Archaeology?

LESSON 1
Ethics of Studying Human Remains

LESSON 2
Knowing the Land—Knowing People

LESSON 3
Vesuvius Erupts

LESSON 4
Romans Recline to Dine

LESSON 5
Mosaic Math

LESSON 6
Coins and Culture

LESSON 7
Mystery at a Roman Villa

LESSON 8
Stewardship is Everyone’s Responsibility

INVESTIGATION

Latin Map Quiz

Design a Roman Villa

Play the game MYSTERIUM at the Roman Villa!

FINAL PERFORMANCE OF UNDERSTANDING
Archaeology Reports

Enduring Understandings

- Studying ancient human remains has ethical implications.
- Volcanoes play a significant role in shaping the human environment.
- Primary sources are clues archaeologists use to interpret the past.
- Communication is important to every culture and art is a form of communication.
- Frescoes are a form of cultural expression.
- Mosaic designs use symmetry, shapes, and angles to create patterns. Mosaics are a means of decoration and storytelling.
- Coins served as a form of economic exchange within Roman imperial society and the Roman emperors used coins as propaganda tools.
- Studying a Roman villa can help us understand Roman people and culture.
- Stewardship of archaeological sites is everyone’s responsibility.

Figure 2. Unit Organizational Flow Chart
Lesson One

Ethics of Studying Human Remains

Enduring Understanding

Studying ancient human remains has ethical implications.

Essential Questions

What are the ethical constraints on excavating, studying, and displaying human remains? How should human remains be treated and displayed?

What Students Will Learn

- Archaeological discoveries have ethical implications for people living today.

What Students Will Do

- Evaluate differing viewpoints on studying ancient human remains.
- Watch a video on ancient human remains found at Pompeii and Oplontis.
- Write arguments to support claims with clear reasons and relevant evidence.

Assessment

Students respond to an ethical question with a persuasive essay.

Materials

For the Teacher

- Discovery Channel video, *Pompeii: Back from the Dead* (2011). Run time of 48 minutes
- Images of Pompeii casts of people and animals, and skeletal remains from Herculaneum and Oplontis

SUBJECTS: science, social studies, language arts
CCSS: W.1, W.4, W.5, W.7, W.8, W.9 W.10
SKILLS:
  - Bloom's Taxonomy: evaluation analysis
  - Facets of Understanding: explanation, perspective, empathy
DURATION: 90 minutes
CLASS SIZE: Any

For Each Student

- A pocket folder or portfolio in which to gather and store unit materials
- Word Bank (page 31), 2-3 copies for each student for the entire unit
- “Investigating a Roman Villa: Understandings” (page 32-33), one copy for each student
- Copies of the “Persuasive Writing Instructions” and “Persuasive Map” for each student (pp. 29-30)

Background Information

In 1864, Giuseppe Fiorelli, the director of excavations at Pompeii, invented a technique to preserve the shapes of bodies buried in the ash. The bodies left a hollow cavity in the ash. Archaeologists poured plaster into the hollow pocket creating a detailed plaster cast of the people and animals at the moment of death. However, this process destroys the skeleton and other remains. In 1984, at Oplontis, an expensive technique was employed of pouring resin into a cavity to preserve the body shape and skeletal remain as a wax cast. “The most important find, and one that—properly studied—can shed light on pressing questions, is the discovery of the
Persuasive Writing Map

By: __________________________

Ethical Question: __________________________

Thesis Statement

Reason 1

Reason 2

Reason 3

Evidence/Facts/Examples

Evidence/Facts/Examples

Evidence/Facts/Examples

Conclusion
Lesson Seven

Mystery at a Roman Villa

Enduring Understanding

Studying a Roman villa can help us understand Roman people and culture.

Essential Question

How can investigating a Roman villa help us understand Roman people and culture?

What Students Will Learn

- The names of Roman villa rooms in Latin.
- Social implications are revealed in the design of Roman housing.
- Compare and contrast Roman and modern homes.
- Label rooms using the Latin terms.
- Play MYSTERIUM Roman Villa based on Hasbro’s Clue, The Classic Mystery Game.

Assessment

Students match Latin names of villa rooms to the correct room on a map of Villa A at Oplontis. Students design a shelter based on what they learned about a Roman villa and way of life.

Materials

For Each Student

- Map of Oplontis for labeling (page __)
- MYSTERIUM (Clue) Sheet
- “Map Matching” exercise

For Each Group

- Additional material for each student: “Bring the Past into the Future” (page xx)
- Game board (page ___)
- 6 character tokens (red, green, yellow, purple, white, and blue)
- 6 weapon tokens/cards (page ___)
- 15 MYSTERIUM cards printed on cardstock (page ___)
- 2 dice
- Murder Envelope
- “MYSTERIUM Case File”
- 6 Character Scrolls
- 27 Room Fact Cards

For the Teacher

- PowerPoint of a Roman Villa

Background Information

A Roman villa and house served more purposes than just a shelter. It was designed as a stage for demonstrating wealth and power. You can discover what it means to be Roman by looking at a Roman house or villa. The villa played a key part in the reinforcement of social hierarchy. The male head of household, the paterfamilias,
The Roman Villa Case File

Yesterday evening Poppaea Sabina, the second wife of Nero, was found dead in her villa! The Imperial guard found six suspects and six weapons in nine of the villa’s rooms, but could not solve the case. So, now it is up to you to solve the murder!

To win the game you must determine four things about the murder:

1. Who did it?
2. With what weapon?
3. Where?
4. Why?

WHO? Meet the suspects.
One of these six suspects is the murderer. You must find out who.

- **Nero** Emperor
- **Pliny the Younger** Senator
- **Lucius Crassius** Tertius Manager
- **Methe** Slave Woman
- **Secundus** Slave Man
- **Julia Felix** Elite Woman

WHAT? Check out the artifacts—objects made or used by people.
One of these artifacts was used as a weapon to commit murder! You must find out which.

- Amphora
- Lucerna
- Statua
- Gladius
- Venenum
- Fretale

WHERE? Take a peek at the rooms and learn where they are located on the game board and on the actual map of a Roman Villa. Collect facts about each room as you play the game and translate the Latin word into English.
One of these rooms is the scene of the crime. You must find out which.

- Culina
- Atrium
- Lararium
- Cubiculum
- Triclinium

- Balneum
- Caldarium
- Peristyium
- Colimbus