Beyond Artifacts: Teaching Archaeology in the Classroom

Summer 2008

Florida Unearthed, pg. 36

Peanut Butter & Jelly Archaeology, pg. 30

FLORIDA PUBLIC ARCHAEOLOGY NETWORK
WWW.FLPUBLICARCHAEOLOGY.ORG
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Introduction

Archaeology brings together all the major disciplines – science, math, language arts, social science – fulfilling many Sunshine State Standards and adequately preparing students for standardize tests like the FCAT. More importantly, it provides students with the tools to form multicultural perspectives.

Teachers and administrators are beginning to see the value of teaching archaeology in the classroom, but we must go beyond the one-time talk and showing of artifacts. By working with teachers, we can create programs that combine presented information with lesson plans to reinforce archaeological concepts in the classroom.

The Florida Public Archaeology Network (FPAN) hosted a workshop Beyond Artifacts: Teaching Archaeology in the Classroom on Thursday, May 10, 2007 at the South Florida Community College Avon Park Campus in conjunction with the 59th Florida Anthropological Society (FAS) Annual Meeting. The workshop was a series of hands-on demonstrations and open discussion about archaeological outreach to kindergarten through 12th grade students. By presenting on programs already in place, doing activities, and sharing ideas, we hoped to begin to establish a creative community willing and able to take on the task of teaching archaeology in the classroom.

Over the past year, the initial version of this workbook has been distributed to teachers and archaeological educators not only in Florida, but all over the United States, Canada, and England. The interest in such a resource speaks to the need to keep information current and centralized. Please help keep this valuable resource updated by sharing your comments, suggestions, and lesson plans for next year’s edition.

*My gratitude to FPAN for supporting this effort, but especially to Mary Furlong, Kira Kaufman, Sarah Miller, Zaida Darley, Jose Moreno Cortes, and April Buffington for their contributions to this latest edition!*

Cassandra Rae Harper
Outreach Coordinator
West Central Region
Florida Public Archaeology Network
General Archaeology
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Cookie Excavation

Adapted from *Florida Museum of Natural History, Fossil Cookie Excavations*
submitted by Cassandra Rae Harper, Outreach Coordinator of FPAN’s West Central Regional Center
Cookie Grid created by William Zeman, Young Middle Magnet School, Tampa

Recommended grade level: Any  
Time required: 10 - 15 minutes  
Setting: classroom  
Summary: students will experience excavation using a cookie and toothpick

Objectives  
To provide students with an understanding of the process of excavating artifacts.

Materials  
For each student:  
1 chocolate chip cookie  
1 toothpick  
1 small plate

Background  
Excavation is the method that archaeologists use to extract artifacts out of the ground. The work is very difficult and has to be detail-oriented since the archaeologist is destroying the very thing he/she is trying to study – and there are no “do-overs.” It is also impossible for the archaeologist to know exactly what is under the ground, so he/she has to be very careful not to damage artifacts they cannot see while excavating artifacts they at the surface.

Procedure  
1. Pass out the materials to each student.  
2. Tell the students that they are archaeologists and they have been asked to excavate their artifacts (the chocolate chips) from their archaeological site (the cookie) to the best of their ability by keeping their chips intact.  
3. After 10 minutes, stop the class and find out how many students were successful in excavating whole chips from their cookie.

Closure  
I have found that people fall into two groups when excavating their cookies – they either pick the chips out leaving a hole in their cookie or they destroy the cookie and leave the chips.
What problems did they encounter excavating their chips? Was it easy to determine where the chips were in the cookie? How many students excavated a chip only to discover that they sacrificed another one underneath it?

**Teacher Tips**

The level of complexity for this exercise greatly depends on the type of cookie being excavated. For younger groups, a M&M candy cookie works best – the candy pops right out of the cookie. Older students may enjoy the challenge of an extreme chocolate chip cookie, like Chips Ahoy Chocolate Chunk. No matter where you attempt to excavate a chip, you will find it surrounded by other chips and nearly impossible to keep them all whole.

You can extend this exercise to include gridding and mapping of the chips as they are excavated. Use the Cookie Grid on the next page or have the students sketch the cookie on a piece of graph paper and record each chip they excavate on their grid. They can answer questions relating to the concentration of artifacts in areas and how that might be interpreted.
1. Place your cookie in the middle of the Cookie Excavation Site grid. Write down the four coordinates below.

Top of cookie: ___________  Bottom of cookie: ___________

Sketch the perimeter of your cookie on the Grid Map.

Left side of cookie: ___________  Right side of cookie: ___________

2. Write down the coordinates of any chocolate chips you can see before you begin excavating and sketch them onto your Grid Map.

3. Using a toothpick, begin excavating your cookie. Be careful not to move it. As you find chips, carefully note their coordinates below and sketch them into the Grid Map. Try not to break any chips as you dig.

4. What problems did you encounter while trying to carefully excavate chips? Did you have to sacrifice any chips in order to get to another one? Did this kind of work frustrate you or did you think it was a pleasant challenge?
Excavación en la galleta

Adaptado de Excavando fósiles en una galleta, Museo de Historia Natural de la Florida, sometido por Cassandra Rae Harper, coordinadora de alcance comunitario del Centro Regional del Oeste Central de FPAN.

<table>
<thead>
<tr>
<th>Nivel o grado recomendado: cualquiera</th>
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<tbody>
<tr>
<td>Tiempo requerido: 10-15 minutos</td>
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<tr>
<td>Contexto: Salón de clases</td>
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<tr>
<td>Resumen: Los estudiantes experimentaran una excavación utilizando una galleta y un palillo de dientes.</td>
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</table>

**Objetivos**

Proveer una oportunidad a los estudiantes para comprender el proceso de excavación de artefactos.

**Materiales**

Por cada estudiante:
- 1 galleta de chispas de chocolate
- 1 palillo de dientes
- 1 platito

**Antecedentes**

La excavación es un método que los arqueólogos usamos para extraer artefactos fuera de la tierra. El trabajo es muy difícil y tiene que ser detallado y orientado ya que los arqueólogos destruyen en este proceso precisamente eso que quieren estudiar — y si se comete un error, ¡no se puede remediar! También es imposible para el arqueólogo saber de antemano que exactamente existe bajo la tierra, así que el o ella tiene que ser muy cuidadosos en no dañar los artefactos que no se ven mientras se excavan los artefactos que si pueden ver.

**Procedimiento**

1. Repartir los materiales para cada estudiante.
2. Decir a los estudiantes que ellos son arqueólogos y que les han pedido excavar unos artefactos (chispas de chocolate) de un sitio arqueológico (sus galletas), pero tratando lo mejor que puedan de dejar las chispas intactas.
3. Después de 10 minutos, detener la clase y verificar cuantos estudiantes fueron exitosos en excavar todas las chispas de su galleta.
Evaluación

Se ha encontrado que los estudiantes caen en dos grupos cuando están excavando sus galletas — unos sacan las chispas de chocolate dejando un agujero y otros destruyen la galleta y dejan las chispas. ¿Qué problemas ellos encuentran excavando sus galletas? ¿Fue fácil determinar donde las chispas estuvieron en la galleta? ¿Cuántos estudiantes excavaron una chispa de chocolate solo para descubrir que sacrificaron otra que estaba debajo en el proceso?

Consejos prácticos para los maestros

El nivel de complejidad de estos ejercicios depende principalmente del tipo de galleta que sea excavada. Para grupos de niños más jóvenes, una galleta de dulces de M&M es más recomendable — el dulce sale rápido de la galleta. Estudiantes más adultos pudieran disfrutar más el reto si se utilizase una galleta de chipas de chocolates extrema, tal como las “Chips Ahoy Chocolate Chunk”. No importa donde se intente excavar una galleta, siempre se van a encontrar rodeados de otras chipas y se le va hacer casi imposible mantenerlas todas completas.

Se puede extender este ejercicio para incluir coordenadas y mapas del lugar donde se encuentran las chispas de chocolate según se vaya excavando. Haga que el estudiante haga un boceto de la galleta en un pedazo de papel de gráfica, y que en el mismo registre cada chispa excavada en los cuadritos del papel. Estos pueden responder a preguntas relacionadas a la concentración de artefactos en ciertas áreas y como estas pueden ser interpretadas.
Archaeology Jeopardy

submitted by Cassandra Rae Harper, Outreach Coordinator of FPAN’s West Central Regional Center

Recommended grade level: any
Time required: 1 class period
Setting: classroom
Summary: students will demonstrate knowledge of archaeology by playing a PowerPoint version of Jeopardy

Objectives
To review archaeological terminology and concepts.

Materials
Archaeology Jeopardy PowerPoint presentation (found on included CD)

Background
Florida archaeology presentations can be enhanced through a variety of exercises that make the student review and reflect on the information presented. Specifically written to help Boy Scouts prepare for their Archaeology Merit Badge requirements, this exercise lets students demonstrate recently acquired knowledge of prehistoric Florida and archaeological concepts.

Procedure
1. After presenting information regarding the prehistoric sequence of Florida and a brief overview of archaeological concepts, turn on the Archaeology Power Point presentation.
2. Split the room into 5 even groups, and assign each group a number.
3. Have Group #1 choose a category and value.
4. Click on that square and read the answer out loud.
5. Give the group 30 seconds to come up with the appropriate question.
6. After 30 seconds or if the group does not have the correct question, you may let another group try to steal the points.
7. Continue the game, calling on each group in numerical sequence, until all the squares have been answered.
8. Keep a tally of points to see who wins the game.

Teacher Tips
This is just a fancy Power Point Presentation. As it was written for a specific purpose, you may want to consider tweaking some of the answers to reflect what is being learned in class.

You can also create Double Jeopardy squares by changing the background color of an answer or adding an extra slide that says Double Jeopardy.
Archaeology and Pseudoscience

submitted by Mary Furlong, Outreach Coordinator of FPAN’s Northwest Regional Center

Recommended Grade Levels: 6-12
Time Required: 1-2 Class Periods
Location: Classroom

**Objective**

Students will learn to distinguish between science and pseudoscience using the scientific method.

**Materials**

Magazine, newspaper, or online articles about topics (i.e. Loch Ness Monster or Bermuda Triangle) from entertainment, news, fringe, and scientific sources

**Scientific Resources**

*Junior Skeptic Magazine*

http://www.skeptic.com/the_magazine/junior_skeptic.html

*Frauds, Myths, & Mysteries: Science and Pseudoscience in Archaeology* by Kenneth L. Feder

**Background**

The scientific method is an essential tool used by archaeologists to gain a better and more accurate understanding of the past. However there are many people, who portray themselves as experts or scientists, who ignore the scientific method in order to perpetuate false, exaggerated, or outlandish views of the past. The pseudoscience perpetuated by these “experts” can be harmful because it often perpetuates racism and other biases, is tied to financial scams, and takes away public attention from true scientific discovery.

**Procedure**

1. Review the steps of the scientific method in class. Remind students about the importance of testing hypotheses and replicating the results of those tests.
2. Have students research various topics in archaeological pseudoscience (Atlantis, Aliens building the Pyramids, etc.).
3. Tell students to select two articles about the same topic. They should pick one article that appears “scientific” and one that does not. Have students answer these questions for each article.
   a. What is the researcher’s hypothesis?
   b. Did they test their hypothesis (conduct an experiment)? How? If not, could it be tested? How?
   c. Can the test be replicated? Was it?
d. What were the researcher’s conclusions? Do you agree with them?
4. Next ask students to consider each source of information.
   a. Who conducted the research featured in the article?
   b. What are his/her credentials?
   c. What are the researcher’s feelings toward mainstream scientists or scholars?
   d. Who wrote or published the article? Is it a legitimate source of information? Does that affect the reader’s belief of the information? If so, how?
5. Compare the answers for each question between the two articles. Does the research described in either article appear to more scientific than the other?
6. Discuss the dangers of pseudoscience. For example, people may have given money to companies searching for Atlantis or consider that the idea that aliens built the Mayan pyramids infers that the Mayan people were not intelligent enough to do so.

Closure
After comparing articles, ask students to address the same subject using the scientific method. Instruct each student to form a hypothesis and develop a way to test it. For example, how could a student create an experiment to test for the existence of Atlantis?

Teacher Tip
Don’t forget about Occam’s Razor - pseudoscience is notorious for making many assumptions, while ignoring simpler explanations.
Ancient Graffiti

adapted from *Intrigue of the Past*, Rock Art Two: Creating Your Own
submitted by Mary Furlong, Outreach Coordinator of FPAN’s Northwest Regional Center

Recommended Grade Levels: 4-8
Sunshine State Standards: VA.B.1.2.1, VA.B.1.2.3, SS.B.2.3
Time Required: 1-2 Class Periods
Location: Classroom/Art Room

**Objective**
Students will create a graffiti panel to show how people expressed themselves in the past.

**Materials**
- Roll of Butcher Paper or Bulletin Board Paper
- Drawing Charcoal

**Background**
Wall paintings, rock art, and even graffiti are found at archaeological sites throughout the world. Pictographs and petroglyphs created by prehistoric Native Americans who lived in the western United States are frequently studied by archaeologists to interpret their meaning and use. Archaeologists use this type of rock art to understand the beliefs, religion, experiences, or stories of the people who created them. Graffiti created during historic times has been analyzed in the same way. For example, at *El Morro*, a large fort in San Juan, Puerto Rico, there is graffiti depicting ships adorning the walls of the brig. Historians and archaeologists are working to analyze these drawings to determine when and by whom they may have been drawn.

**Procedure**
1. Show students different examples of rock art and graffiti. Explain the use of symbols in the different pieces of art. Ask the students what types of messages the artists are trying to depict. Do they draw or carve things they are familiar with or are they creating images from their imagination? Compare and contrast the rock art, historic graffiti, and modern graffiti. (See Attached)
2. Tell the students to imagine they have been locked in a brig (prison) far away from home. As prisoners, the only way they can entertain themselves is to decorate the walls.
3. As a class, compile a list of the things the students would miss most while they were in prison. What symbols or pictures could they draw to depict these things?
4. Roll out a large sheet of butcher paper. Crumple it to give it a more rock-like texture.
5. Give students drawing charcoal and have them draw their graffiti on the butcher paper. Encourage students to work together to tell stories with their drawings. The
drawings do not have to have to form a single mural, but the symbols used should be consistent and the stories and drawings should be cohesive.

**Closure**

Have students review a graffiti panel created by another class. Do they understand the symbols, stories, and meanings of the other class’ graffiti drawings? Is it easier or harder to interpret the graffiti created by their schoolmates than the historic graffiti or prehistoric rock art? How would people in the future interpret the student-made graffiti?

**Teacher Tip**

Ask students to consider how modern vandalism affects the graffiti and rock art of the past. Should ancient rock art and graffiti be protected? If so, how?
Utah Rock Art

Brig Graffiti, El Morro, San Jan, Puerto Rico

Pensacola, Florida’s Graffiti Bridge
Archaeology & the Media

submitted by Mary Furlong, Outreach Coordinator of FPAN’s Northwest Regional Center

Recommended Grade Levels: 6-12
Sunshine State Standards: SS.A.1.3, SS.A.4.3, LA.8.4.1.2
Time Required: 1-2 Class Periods
Location: Classroom

Objective
Students will analyze archaeology in the media to determine the difference between “good” archaeological practice and sensationalism.

Materials
Newspaper/ Magazine Articles about Archaeology
Video of an episode of “Digging for the Truth,” “Deep Sea Detectives,” or other similar program

Background
The media plays a huge role in the general public’s perception of archaeology and the past. Major motion pictures (i.e., Indiana Jones), popular cable networks (i.e., Discovery Channel and History Channel), and even print media greatly affect our perception of archaeology. Archaeologists are often portrayed as great adventures, glorified treasure hunters, or the intellectual elite hiding secrets of the past from the public. In reality, archaeologists are regular people who actively engage in scientific study and research, paying just as much attention to plain ceramic bowls as they do to gold coins.

Procedure
1. Bring in a collection of articles about a particular archaeological subject for students to read. Discuss the archaeological methods used to discover, excavate, analyze, interpret, and conserve archaeological materials and historical documents. The Civil War submarine H.L. Hunley is an excellent subject for this activity because a lot of scholarly and public material has been written about it. In addition, there is an article and activities associated with the Hunley in “History Beneath the Sea: Nautical Archaeology in the Classroom,” which is included on the CD.
2. Watch an episode of “Digging for the Truth” or “Deep Sea Detectives” in class or as a homework assignment. Each episode is about 45 minutes long. Past episodes of these shows are available on DVD or are downloadable on iTunes. See next page for a list of episodes. There is an episode of “Digging for the Truth” about the H.L. Hunley.
3. Lead a discussion comparing the information reported in the various forms of media (articles, TV shows, etc.). Discuss how information varies between scholarly work and pieces intended for the general public. Be sure to discuss the
importance of presenting the subject in an entertaining way. Are the scholarly works boring?

**Closure**
Instruct students to write a commercial advertising a show about archaeology. Tell them they must portray the archaeology in an interesting and factual way, but without being over dramatic or sensationalized.

**Teacher Tip**
In addition to the episodes themselves, the advertisements (especially commercials) for these episodes are often the most extreme examples of sensationalism. The hosts of these shows are often portrayed as being in life threatening situations, fringe theories are often given equal air time and legitimacy, and controversies are often created or exaggerated. Lead a class discussion about the advertising techniques for these shows. Do the shows live up to the advertising? Where does archaeological science and research fit into these advertisements? What do TV networks gain from sensationalizing their shows?

**Lists of Episodes**

“Digging for the Truth” Season One

1. Who Built *Egypt's Pyramids*?
2. *Pompeii* Secrets Revealed
3. Hunt for the Lost *Ark*
4. The *Holy Grail*
5. The *Iceman* Cometh
6. Quest for King Solomon's Gold
7. Passage to the *Maya* Underworld
8. The *Lost Tribe of Israel*
9. Secrets of the *Nazca Lines*
10. The Search for *El Dorado*
11. Giants of *Easter Island*
12. Mystery of the *Anasazi*
13. *Nefertiti: The Mummy Returns*

Season Two

1. The Real *Temple of Doom*
2. *America's Pyramids*
3. *Stonehenge* Secrets Revealed
4. The *Vikings: Voyage to America*
5. *Roanoke: The Lost Colony*
6. *Cleopatra: The Last Pharaoh*
7. City of the Gods - *Teotihuacan*
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<td>2. <em>Lost Empire Of Genghis Khan</em></td>
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<td>3. <em>King Tut</em> Secrets Revealed</td>
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<td>4. <em>New Maya</em> Revelations</td>
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<td>6. <em>Machu Picchu</em></td>
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<td>7. <em>Secrets of Mummies</em></td>
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<td>8. <em>Lost Treasures of Petra</em></td>
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<td>9. <em>Stonehenge of the Americas</em></td>
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<td>10. <em>Lost Treasures of the Copper Scroll</em></td>
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<td>11. <em>The Aztecs</em></td>
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<td>12. <em>Searching for King David</em></td>
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<td>2. <em>The Hunley: New Revelations</em></td>
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<tr>
<td>3. <em>Kings of the Stone Age</em></td>
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<td>4. <em>Pirates: Terror in the Mediterranean</em></td>
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<td>5. <em>God's Gold, Part 1</em></td>
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<td>7. <em>Timbuktu</em></td>
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<td>8. <em>Angkor Wat: Eighth Wonder of the World</em></td>
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<td>Season 1, Episode 2: <em>Shipwrecks!: California</em></td>
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<tr>
<td>Original Air Date: 1 April 2003</td>
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<td>Season 1, Episode 3: <em>Shipwrecks!: Cape Cod</em></td>
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<td>Original Air Date: 15 April 2003</td>
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<td>Season 1, Episode 4: <em>Shipwrecks!: Florida</em></td>
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Original Air Date: 29 April 2003
Season 1, Episode 5: Raise the Monitor!
Original Air Date: 6 May 2003
Season 1, Episode 6: USS Indianapolis Resurfaced
Original Air Date: 13 May 2003
Season 1, Episode 7: The Scharnhorst Mystery
Original Air Date: 20 May 2003
Season 1, Episode 8: Silent Service: The Captains of WWII
Original Air Date: 1 July 2003
Season 1, Episode 9: Silent Service: The Torpedoes of WWII
Original Air Date: 8 July 2003
Season 1, Episode 10: The Death of the Edmund Fitzgerald
Original Air Date: 22 July 2003
Season 1, Episode 11: The Ghost Ship of New England
Original Air Date: 29 July 2003
Season 1, Episode 12: The Hunt for the Derbyshire
Original Air Date: 5 August 2003
Season 1, Episode 13: Death on the Baltic
Original Air Date: 12 August 2003
Season 1, Episode 14: Skeleton in the Sand: The Montana
Original Air Date: 2 September 2003
Season 1, Episode 15: Death on Lake Huron
Original Air Date: 9 September 2003
Season 1, Episode 16: Slave Ship Uncovered!
Original Air Date: 23 September 2003
Season 1, Episode 17: Lost Treasure Ship Found!
Original Air Date: 30 September 2003
Art treasures go down with a merchant vessel off the European coast in 1771.
Season 1, Episode 18: The Rohna Disaster: WWII's Secret Tragedy
Original Air Date: 2 October 2003
Season 1, Episode 19: The Mysteries of Devil's Triangles
Original Air Date: 9 October 2003
Season 1, Episode 20: Gold Rush Disaster: The Frolic
Original Air Date: 11 November 2003
Season 1, Episode 21: Treasure Hunt: Search for the Atocha
Original Air Date: 25 November 2003
Season 1, Episode 22: B-29
Original Air Date: 2 December 2003
Season 1, Episode 23: Japanese Sub at Pearl Harbor
Original Air Date: 7 December 2003
Season 1, Episode 24: Andrea Doria: Tragedy at Sea
Original Air Date: 9 December 2003
Season 1, Episode 25: S-5: Doomed Sub
Original Air Date: 23 December 2003
Season 1, Episode 26: U-352: False Pride
Original Air Date: 30 December 2003

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**Season 2**

Season 2, Episode 1: **U-Boats in the Gulf!**
Original Air Date: 12 April 2004
Season 2, Episode 2: **Sinking on the St. Lawrence**
Original Air Date: 20 April 2004
Season 2, Episode 3: **Death by Human Torpedo**
Original Air Date: 27 April 2004
Season 2, Episode 4: **Graveyard of Ships**
Original Air Date: 4 May 2004
Season 2, Episode 5: **Death in the Pacific**
Original Air Date: 11 May 2004
Season 2, Episode 6: **Destroyer Down**
Original Air Date: 18 May 2004
Season 2, Episode 7: **The Lost Tanks of D-Day**
Original Air Date: 1 June 2004
Season 2, Episode 8: **Explosion at Sea**
Original Air Date: 5 July 2004
Season 2, Episode 9: **Secret Underwater Caves**
Original Air Date: 19 July 2004

Explorers find a cache of Mayan artifacts hidden deep within a Mexican cave.
Season 2, Episode 10: **D-Day Minesweeper**
Original Air Date: 26 July 2004
Season 2, Episode 11: **Time Bomb of the Deep**
Original Air Date: 30 August 2004
Season 2, Episode 12: **Underwater Train Wreck**
Original Air Date: 20 September 2004
Season 2, Episode 13: **Death in the Mediterranean**
Original Air Date: 27 September 2004
Season 2, Episode 14: **The Confederacy's Secret Weapon**
Original Air Date: 4 October 2004
Season 2, Episode 15: **I-169: Pearl Harbor's Revenge**
Original Air Date: 11 October 2004
Season 2, Episode 16: **Mystery Sinking in Bermuda**
Original Air Date: 18 October 2004
Season 2, Episode 17: **Mystery U-boat of World War I**
Original Air Date: 25 October 2004
Season 2, Episode 18: **Tugboat Down!**
Original Air Date: 8 November 2004
Season 2, Episode 19: **Cruiser Under Siege**
Original Air Date: ???
Season 2, Episode 20: **Ship of Doom**
Season 3

Season 3, Episode 1: **Loch Ness: Great Monster Mystery**
Original Air Date: 25 April 2005
Season 3, Episode 2: **Forgotten Sub of WWII**
Original Air Date: 2 May 2005
Season 3, Episode 3: **D-Day Destroyer**
Original Air Date: 9 May 2005
Season 3, Episode 4: **Winter of Disaster**
Original Air Date: 16 May 2005
Season 3, Episode 5: **Mysterious Loss of the German Fleet**
Original Air Date: 23 May 2005
The scuttling of the Imperial German Navy's WWI battleships in Scapa Flow is investigated.
Season 3, Episode 6: **D-Day Troops: Lost at Sea**
Original Air Date: 6 June 2005
Season 3, Episode 7: **Another Atlantis?**
Original Air Date: 13 June 2005
Season 3, Episode 8: **More Secret Underwater Caves**
Original Air Date: 20 June 2005
Season 3, Episode 9: **U-Boat Mystery**
Original Air Date: 27 June 2005
Season 3, Episode 10: **Secret Allied Trap**
Original Air Date: 4 July 2005
Season 3, Episode 11: **Sub War**
Original Air Date: 11 July 2005
Season 3, Episode 12: **U.S.S. Perry**
Original Air Date: 18 July 2005
Season 3, Episode 13: **Damn the Torpedoes**
Original Air Date: 30 July 2005

Season 5

Season 5, Episode 1: **Pharaoh's Lost Treasure**
Original Air Date: 27 February 2006
Season 5, Episode 2: **Train Wreck in Lake Michigan**
Original Air Date: 6 March 2006
Season 5, Episode 3: **Mystery of the Channel Collision**
Original Air Date: 13 March 2006
Season 5, Episode 4: **Blackbeard's Mystery Ship**
Original Air Date: 20 March 2005
A focus on the infamous pirate Blackbeard and his flagship, the Queen Anne's Revenge.
Season 5, Episode 5: Great Lakes Ghost Ship
Original Air Date: 27 March 2006
Season 5, Episode 6: Disaster of Napoleon's Fleet
Original Air Date: 3 April 2006
Season 5, Episode 7: Caught in a Killer Storm: Bedloe and Jackson
Original Air Date: 17 April 2006
Season 5, Episode 8: Captain's Last Stand
    Original Air Date: 24 April 2005
Archaeology Goes to the Movies
Submitted by Cassandra Rae Harper, Outreach Coordinator for FPAN’s West Central Regional Center and April J. Buffington, Outreach Assistant for FPAN’s West Central Regional Center

Recommended grade level: 5-12  
Time required: 30-45 minutes  
Setting: classroom or outside  
Summary: students will demonstrate the differences between archaeology in the movies and “real life” archaeology

Objectives
To understand that archaeology portrayed in the movies is fictional by recreating scenes from the Indiana Jones movies and the Lara Croft movies and comparing them to a “real life” archaeology scene.

Materials
3 scrolls (samples are on the following pages and on the accompanying CD)  
1 notebook  
1 black marker  
3-5 plastic bags (sandwich bags or larger)  
(The following items are optional and can be substituted with what you have in the classroom)  
Bamboo poles  
2 Tiki torches  
Artifacts such as food items, jewelry (plastic, wood, etc. does not have to be expensive, beads, Golden Chimp!)  
Lara Croft accessories (wig, belt)  
Indiana Jones accessories (Fedora, jacket, whip)

Background
Archaeology has been portrayed in movies such as Indiana Jones as action-packed gun-slinging, science. Although archaeologists believe that their science is action packed, most of us do not even own a gun - let alone fight Nazis! The rewards of archaeology are immeasurable but there is much work that goes into understanding our past. This activity gives students the opportunity to have a little action-packed fun while understanding that movies are entertaining using only a little bit of reality.

Procedure
1. Set up your archaeological site. We use the bamboo poles when we are outside to set the boundaries of the site. The tiki torches are used to mark the entrance. The Golden Chimp is placed on a pedestal at the opposite of the entrance so as to make it the focal point. Other artifacts such as food offerings may be placed in front of the Chimp. Jewelry may be used to decorate the
bamboo poles. You may want to get the students involved by having them make the artifacts.

2. Now that the scene is set, divide the class into three groups. Hand each group a scroll. The scrolls provided have our imaginary myth on them (feel free to create your own) and instructions as to how the group should act. For example if you are Indiana Jones, people in the group may be the “bad guys” or the rolling boulder and the Indiana Jones character should rush in, fight the bad guys, grab the chimp, and leave…narrowly escaping death!

3. The groups should come up with a scene that will last about a minute. We recommend giving the students props such as a fedora or a braided wig!

4. Give the students enough time to work their scene out (about 10-15 minutes) and then each group gets to perform their scene for the other groups. If possible, a video camera is used to simulate an actual movie scene. Also, we have found out that if the “Archaeologist” group goes first then the other groups will follow the techniques presented so Indiana Jones will actually start picking up all the artifacts and recording where he found them! We recommend starting with the Indiana Jones group followed by Lara Croft and then the Archaeologist group.

Closure

So what do the students get out of this? When we finish this activity we ask simple questions like, what is the difference between archaeology in the movies and real archaeology. Also discuss the techniques used in each of scenes. Indians Jones and Lara Croft will run in and have a really cool fight scene but will simply grab the Golden Chimp and leave. Archaeologists will take their time and observe their surroundings. Although the Golden Chimp is important, it may not be able to tell about the people who were using the cave. Food remains will let us know what people were eating during that time. Jewelry offerings may show a sign of status or simply the fashion of that time. Also, artifacts are good but they tell us much more when we know what they were found with. The Golden Chimp is a nice artifact but it does not tell us anything. If we found it with food remains in front of it along with a fire pit and the rest of the cave was empty, it may tell us that it was a ceremonial site. No other activities relating to living, such as pottery, weapons, hunting implements, is a good sign that people were not using it for everyday activities.

Teacher Tips

We have created this scene in the fashion of Indiana Jones based on what we had at our finger tips. Feel free to use items in your classroom as artifacts and to change the story. You could even read a real story from mythology (or any culture) and base the scene on that. Many lesson plans could branch off of this one activity so feel free to make this as simplistic or involved as you may want.
Archaeology Goes to the Movies

Legend: In a remote part of Africa, there is a story of a Golden Chimp. It is said that when the sky turned to ash in the middle of the day, people fled to the Cave of the Golden Chimp. By dancing and giving offerings to the Chimp, the Chimp would bring back the light to the sky. He who possesses the Golden Chimp controls the sun.

Your group represents Indiana Jones, professor and archaeologist from the 1940’s. You have been contacted by the United States government to help them recover the Golden Chimp before the Nazis. Your research has led you to a cave in Africa, marked by two tiki torches.

In true Indiana Jones’ style, you will retrieve the Golden Chimp. Be as creative with your story line as possible, remember Indiana Jones never simply walks into a place and picks up the artifact and leaves. Use members of your group to act as possible side kicks, traps, and bad guys.

Above all else - have fun.

Your adventure awaits...

FLORIDA PUBLIC
ARCHAEOLOGY
NETWORK
Archaeology Goes to the Movies

Legend: In a remote part of Africa, there is a story of a Golden Chimp. It is said that when the sky turned to ash in the middle of the day, people fled to the Cave of the Golden Chimp. By dancing and giving offerings to the Chimp, the Chimp would bring back the light to the sky. He who possesses the Golden Chimp controls the sun.

Your group represents Lara Croft, archaeologist from the 1980’s. On the way home from a recent trip to Africa, you hear the story of the golden chimp from a military informant. The story recently surfaced as a plot to control solar energy by OPEC. Your informant has led you to a cave marked by two tiki torches.

In true Lara Croft fashion, you will retrieve the Golden Chimp. Be as creative with your story line as possible, remember Lara Croft never simply walks into a place and picks up the artifact and leaves. Use members of your group to act as possible side kicks, traps, and bad guys.

Above all else - have fun.

Your adventure awaits...

Florida Public Archaeology Network
Archaeology Goes to the Movies

Legend: In a remote part of Africa, there is a story of a Golden Chimp. It is said that when the sky turned to ash in the middle of the day, people fled to the Cave of the Golden Chimp. By dancing and giving offerings to the Chimp, the Chimp would bring back the light to the sky. He who possesses the Golden Chimp controls the sun.

Your group represents actual archaeological investigation. Your research into early African cultures has uncovered a story about the golden chimp. Further research has led you to a cave marked by two tiki torches.

As true archaeologists, you are not just interested in the golden chimp but all the artifacts and information surrounding the chimp. Document all observations. Bag all artifacts, making sure to write information regarding location on the bag. Creatively use members of your group as crew, other specialists, or equipment.

Above all else - have fun.

Your adventure awaits…
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Activities

Prehistoric Archaeology
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Archaeological Crossword Relay Race

submitted by Cassandra Rae Harper, Outreach Coordinator of FPAN’s West Central Regional Center

Recommend grade level: 3 - 5
Time required: 20 minutes
Setting: open field (can be used in a classroom setting, see Teacher Tips)
Summary: students will use knowledge of Florida prehistory gained from a presentation to complete a crossword puzzle

Objectives
To provide students with an understanding of Florida’s prehistory.

Materials
For each group:
1 clipboard
1 Archaeology Crossword Puzzle
1 pencil
1 bag containing word bank on strips of paper

Background
Florida archaeology presentations can be enhanced through a variety of exercises that make the student review and reflect on the information presented. This exercise requires the students to retain information about Florida’s prehistoric cultural time periods.

Procedure
1. Tell the students that they will need to pay close attention to your presentation because there will be a quiz later.
2. Make sure that you emphasize each word included in the word bank as you are giving your presentation on Florida prehistory (an example of which can be found on the CD).
3. Take the students outside and divide them into groups.
4. Each group of students is given an Archaeology Crossword Puzzle on a clipboard and a pencil.
5. Each adult is responsible for one group’s bag of clues from the work bank (if you do not have enough adults, make sure the bags are marked for each group to avoid confusion).
6. Have the students stand at the opposite end of an open field from teachers and volunteers.
7. Instruct the students that they have to send a person to the adult with their word bank to obtain a word from the bag and take it back to their group.
8. Once the group has placed the word in the appropriate space on the crossword puzzle, they may send someone else to get another word.
9. This continues until one group completes the puzzle successfully.
Closure

Did the groups have any trouble completing the puzzle or did they remember the topics from the presentation?

Teacher Tips

Although it is emphasized that the students listen to the presentation in order to complete the puzzle, the words are all of varying length and will fit into only one place. However, it does get the students thinking about what they just learned as they burn off a little energy outside!

It is possible to do this activity indoors, by breaking the class into groups and giving them the bags with the word bank. The first team to successfully complete their puzzle wins. You can also use the material as a crossword puzzle and have students work on it individually.
### Archaeology Crossword Puzzle

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### Across
1. This culture had the most different styles of ceramics.
2. The first pottery was made during this cultural period.
3. This was the cultural period when Florida was twice its current size.

### Down
1. What state’s prehistory did we talk about today?
2. The study of people by looking at their stuff.
3. Glass beads are the signature for this cultural period.
4. Anything made by a person becomes a what?
5. Corn was a major crop during this cultural period.
What’s Missing Sheet
submitted by Cassandra Rae Harper, Outreach Coordinator of FPAN’s West Central Regional Center

Recommended grade level: 3 – 8
Time required: 30 minutes
Setting: classroom

Objectives
To provide students an understanding of Florida’s prehistoric artifacts.

Materials
For each student:
  1 What’s Missing? sheet (found on included CD)
  1 pencil

For the class:
  1 What’s Missing? PowerPoint slide (found on included CD)

Background
Florida archaeology presentations can be enhanced through a variety of exercises that make the student review and reflect on the information presented. This exercise requires the students to reflect on the nature of Florida’s prehistoric artifacts. It is assumed that the students had an opportunity to learn about Florida prehistory and have seen artifacts from an outreach collection.

Procedure
1. The class period after their Florida Prehistory presentation, show the PowerPoint slide for What’s Missing?.
2. Remind the students about some of the artifacts they saw yesterday.
3. Distribute the What’s Missing? worksheet and have the students fill it out while looking at the PowerPoint slide.

Closure
Review their answers to the worksheet as a class. Have several students share their pictures of whole artifacts they drew and their paragraphs comparing prehistoric artifacts to items from contemporary society.

Teacher Tips
While the students are completing these sheets, walk around the room and offer suggestions as needed. The point is to help them begin to correlate artifacts to people.
What’s Missing?

Name:                        Date:

Part 1: From the presentation on Florida’s Prehistory, pick your favorite artifact and answer the questions below.

1. Name the raw material that the artifact was made from.

2. Was your artifact broken? How can you tell?

3. How do you think prehistoric people used this artifact?

4. In the space below, draw your perception of the complete artifact. Use dashed lines to show the missing portions:

   

Part II
Write a paragraph describing your artifact. Can you compare this artifact to anything people today use?
LEARNING ABOUT PREHISTORIC FLORIDA
Peanut Butter and Jelly Archaeology
from Expeditions into Ohio’s Past: Teacher’s Guide
submitted by Sarah Miller, director of FPAN’s Northeast Regional Center

Objectives
At the end of this activity, each student should be able to:
- demonstrate how time is recorded in layers
- define and demonstrate stratigraphy
- explain how stratigraphy can be destroyed through human intervention

Materials
For each student:
- 3 slices of bread
- 3 tablespoons of jam or jelly
- 2 tablespoons of peanut butter
- raisins
- chocolate sprinkles
- broken candy pieces (M&Ms suggested)
- 2 paper plates
- plastic knife
- plastic spoon
- large clear straw
- napkins

(see teacher tips for ingredient substitutions)

Background
Stratigraphy is defined as the arrangement of materials in layers. As layers are deposited, the oldest is usually on the bottom and the youngest on top. By examining the materials found in these layers and their relationships to each other, archaeologists can determine what artifacts are older or younger than others.

A habitation site is a place where people have lived. Prehistoric habitation sites may be marked by postholes, cooking pits, middens (trash pits), or artifacts.
**Procedure**

Tell the students that they are going to conduct an experiment in archaeology and then eat it. Pair the students and have each pair obtain a paper plate with the listed materials.

Use the following narrative to tell students what is occurring:
1. Here we have a field somewhere in Florida *(lay down a slice of bread).*
2. Along comes a flood and leaves behind a layer of mud *(spread the peanut butter).*
3. Shortly after the flood, a group of Archaic people camp in the area and build a fire. Their fire leaves behind charcoal and rocks that crack from the heat *(have students slice raisins in half, arrange them in a circle on the sandwich, and fill in the circle with sprinkles).*
4. The Archaic people depart and through time, a layer of dirt form over the campsite *(lay down another piece of bread).*
5. Eventually a Woodland group comes to the same field. These people build shelters *(have students gently cut small indentations or holes in the last slice of bread. These represent the holes dug to hold posts for shelters).*
6. These Woodland people made a lot of pottery, but some of the pottery got broken *(have students dig two small holes in the top of the bread – one on each side – and place broken candies in these holes).*
7. The Woodland people leave the site and because it is so close to the river, the site floods *(students can spread jelly which may cause same redistribution of pottery, a situation that occurs on real sites).*
8. Through time, other layers are laid down until the present and final layer of dirt covers the site *(students put on top layer of bread).*
9. Today, an archaeologist suspects this field was a prehistoric habitation site and conducts random core samples and surveys *(have students push large straws randomly through their sandwich. If they find a sprinkle or hit something, they may have found a habitation site).*
10. The archaeologist conducts a test excavation at the site *(students cut a square into the sandwich and remove layers, one by one. If they find something, they have found the habitation site).*
11. From the test unit, students can see their layers. This is stratigraphy. Ask the students to identify the oldest layer. Which habitation is older? This is similar to what happens when archaeologists examine a site.

**Closure**

Ask the students if they could read their layers if they put the sandwich in a blender. Explain to the students that this is what happens when we disturb (plow, loot, or bulldoze) a habitation site. To fully excavate this site, students would have to remove each layer – one at a time. Would they have the sandwich then? Excavation is a destructive process.

For the final excavation, students may divide and eat their sandwich, either layer by layer or all at once. (Alternatively, if they eat it all at once, and find a pottery sherd before it is eaten, it may be considered salvage archaeology, or archaeology done in the
face of impending loss. If it gets in their mouth before they “discover” it, it is lost in the action of modern use.)

This lesson can mimic a reconnaissance survey by letting your fingers walk over the “site” looking for artifacts or depressions. Another possible extension is to correlate disturbance to a site by saying: what if we put the sandwich in a blender (or actually do so)? Mix the sandwich layers and artifacts together to show how different it would look if the site had been previously disturbed by construction.

**Teacher Tips**

The list of ingredients is only a suggestion. Substitutions can be made – chocolate chips for raisins, cake frosting for peanut butter and jelly, angel food cake or shortcake cups for bread. You may also want to try adding gummy worms just for fun!

To keep costs minimal, you may suggest that students bring their own ingredients.
Arqueología con Crema de Maní (Cacahuate) y Mermelada

Tomado de Expediciones hacia el pasado de Ohio: Guía del maestro sometido por Sarah Miller, directora del Centro Regional del Noreste de FPAN.

| Nivel o grado recomendado: 3 – 5 |
| Tiempo requerido: 45 – 60 minutos |
| Contexto: Salón de clases |
| Resumen: los estudiantes examinarán el principio de estratigrafía mediante la construcción de un sitio arqueológico comestible. |

Objetivos

Al final de la actividad, cada estudiante debe ser capaz de:
- Demostrar como el tiempo es registrado en capas
- Definir y demostrar que es estratigrafía
- Explicar como la estratigrafía puede ser destruida mediante la intervención humana

Materiales

Por cada estudiante:
- 3 rebanadas de pan para emparedado
- 3 cucharadas de jalea o mermelada
- 2 cucharadas de crema de maní/cacahuate
- pasas
- grageas (“sprinkles”) de chocolate
- pedazos rotos de bombones (se sugieren M&Ms)
- 2 platos desechables
- 1 cuchillo de plástico
- 1 cuchara de plástico
- 1 sorbeto/pajilla transparente y largo
- servilletas

(Vea los consejos prácticos para el maestro para ingredientes sustitutos)

Antecedentes

La estratigrafía se define como la disposición de materiales en capas. Así como las capas son depositadas, las más viejas se encuentran usualmente en el fondo, mientras que las más nuevas se encuentran en la cima. Examinando los materiales encontrados en estas capas y las relaciones entre ellas, los arqueólogos puede determinar que artefactos es más viejo o más nuevo que los otros.

Un sitio habitacional es un sitio donde las personas han vivido anteriormente. Los sitios habitacionales prehistóricos pueden ser marcados por agujeros para postes, hoyos para cocinar, basureros, o artefactos.
Procedimiento

Diga a los estudiantes que van a hacer un experimento en arqueología y que después se lo van a comer. Disponga los estudiantes en parejas y haga que cada par obtenga un plato desechable con los materiales listados anteriormente.

Use la siguiente narrativa para decir a los estudiantes lo que ocurre:

1. Aquí tenemos un campo en algún sitio de la Florida (ponga una rebanada de pan)
2. Con el tiempo viene una inundación y deja una capa de fango (unte crema de maní)
3. Poco después de la inundación, un grupo de personas Arcaicas acampan en el área y hacen una fogata. Ellos dejan abandonadas el carbón y las rocas que se quebraron con el calor (haga que los estudiantes partan pass por la mitad, colocándolas en un círculo en el emparedado, llenando el círculo de grajeas)
4. Las personas del Arcaico se van y al pasar el tiempo, una capa de tierra se forma sobre el campamento (ponga otra rebanada de pan).
5. Eventualmente, un grupo Woodland viene al mismo campo. Estas personas construyeron refugios (haga que los estudiantes delicadamente corte pequeños agujeros o hendiduras en la última rebanada de pan. Estas representan los agujeros excavados para los postes de los refugios).  
6. Los Woodland hicieron muchas cerámicas, pero alguna de estas se rompieron. (Haga que los estudiantes hagan dos pequeños agujeros en la cima del pan - uno en cada lado - y pongan pedazos de dulces en esos agujeros).
7. Los Woodland dejaron el sitio y porque este estaba muy cerca del río, se inundo. (los estudiantes pueden untar mermelada, lo que pude causar la redistribución de las cerámicas en una situación real).
8. A través del tiempo, otras capas se fueron acumulando hasta que la presente y última capa de tierra cubrió el sitio (los estudiantes ponen en la ultima capa una rebanada de pan).
9. Hoy, un arqueólogo sospecha que ese campo fue un sitio habitacional prehistórico y hace sondeos e investigaciones de muestras de la corteza al azar (haga que los estudiantes introduzcan las pajillas/sorbetos a través de sus emparedados al azar. Si encuentran alguna grajea o golpean algo, ellos habrán encontrado un sitio habitacional).
10. Los arqueólogo conducen una excavación de prueba en el sitio (los estudiantes cortan un cuadrado en el emparedado, y remueven las capas una a una. Si encuentran algo, ellos habrán encontrado el sitio habitacional).
11. Mirando la “unidad de prueba”, los estudiantes podrán ver sus capas. A eso lo llamamos estratigrafía. Pregunte a los estudiantes si pueden identificar la capa más vieja. ¿Cuál de estas capas es la más vieja? Esto es similar a lo que sucede cuando los arqueólogos examinan el sitio.

Discusión

Pregunte a los estudiantes si ellos pudieran identificar las capas si pusieran el emparedado en una licuadora/batidora. Explique a los estudiantes que esto es lo que sucede cuando los sitios habitacionales son perturbados (saqueos, derribados con máquinas, o
mediante arado). Para poder investigar el sitio, los estudiantes tuvieron que remover cada capa – una a la vez. ¿Tendrían entonces el empaiñado? La excavación es un proceso destructivo.

Para la excavación final, los estudiantes pueden dividir y comer sus empaiñados, capa a capa, o todo a la vez. (Alternativamente, si ellos se comiesen todo el empaiñado a la vez, y consiguiesen los pedazos de “cerámica” antes de comérselos, se pudiera esto considera arqueología de salvamento, o arqueología que se hace en el momento en que un sitio enfrenta el peligro inminente de ser destruido. Si estos “artefactos” llegasen a su boca antes de ser “descubiertos”, estarán perdidos en la acción del uso moderno).

Esta lección puede imitar un sondeo de reconocimiento dejando que los dedos de los estudiantes caminen sobre el “sitio” buscando artefactos o depresiones. Otra posible extensión a esta actividad es correlacionar los disturbios en el sitio diciendo: ¿Que tal se ponemos el empaiñado en una licuadora (o hacerlo de veras)? Mezcle las capas de empaiñado y los “artefactos” para mostrar cuan diferente estos se verían si el sitio hubiese sido previamente perturbado por alguna construcción.

**Consejos prácticos para los maestros**

La lista de ingredientes es solo una sugerencia. Algunos substitutos pudieran ser- chispas de chocolate en lugar de pasas, glaseado de pastel/“frosting” de bizcocho en vez de crema de maní y mermelada, pastel de ángel (“angel food cake”) o tartas en lugar de pan. ¡Puede también añadir “gummy worms” para hacerlo divertido!

Para mantener los costos al mínimo, puede sugerir a los estudiantes que traigan sus propios ingredientes.
Florida Unearthed

Submitted by Cassandra Rae Harper, Outreach Coordinator of FPAN’s West Central Regional Center

Recommended grade level: K – 3
Sunshine State Standards: SC.A. 1.1, SC.G.2.1, SC.H.1.1, SS.A.1.1, SS.B.2.1
Time required: 30 minutes
Setting: Classroom

Objectives
To provide students with an understanding of Florida’s prehistory.

Materials
1 Florida Unearthed board
5 small plastic tubs, preferably with lids
10 small paint brushes
10 trowel plastic painting knives
sand

Background
This exercise helps the students to learn the sequence of Florida’s prehistoric cultures by emphasizing chronological order and differences in food and artifact types.

Procedure
1. Remove items from the Florida Unearthed board.
2. Put each representative cultural period into its own plastic tub, making sure that the pieces are not visible on the surface.
3. Split the class into five groups.
4. Explain to the class that they will be excavating their container to find artifacts from the Florida Unearthed board.
5. Two students can begin to excavate with the plastic painting knives.
6. Once they find an artifact, have them hand the trowel to another group member.
7. Then the student should dust the sand off their artifact with the brush and place it back on the board. This will be easy since the background color of the artifact correlates with the color of its cultural time period.

Closure
Once the board has been completed, review the sequence of Florida’s prehistory with the class. Have them tell you what changes occurred in pottery, point, and food types.
Teacher Tips

If you have the opportunity to use real artifacts or replicas for this project, take a picture of them for the board. That way the students can make a correlation between what they are holding in their hands and where it should be placed in Florida’s chronology by sight.

This project was written as a way of getting the class outside, but certainly could be used indoors as well.
Florida Unearthed Board Construction

submitted by Cassandra Rae Harper, Outreach Coordinator of FPAN’s West Central Regional Center

**Materials**
- 1 tri-fold presentation board
- 5 colors of tempera or acrylic paint
- 5 corresponding colors of craft foam
- velcro
- pictures or objects that represent different cultural time periods

**Background**
This exercise helps the students to learn the sequence of Florida’s prehistoric cultures by emphasizing chronological order and differences in food and artifact types.
**Procedure**

1. Divide presentation board into six areas.
2. Paint five of the areas the colors you selected.
3. As the strips are drying, paste pictures that represent each cultural period to foam of the same color.
4. Cut around the foam to form a border of color for your “artifact.”
5. Place the smooth half of the Velcro strip on the back side of your artifact.
6. Place the fuzzier half on the board where your artifact will be displayed (make sure the board is dry).
7. Repeat until all pieces are on the board in their appropriate strips.
8. Title your strips, I used foam letters but you could paint the title on too.
9. Add some grass at the top so the students will get a sense that we are talking about these objects being underground.

**Teacher Tips**

If you have the opportunity to use real artifacts or replicas for this project, take a picture of them for your board. That way the students can make a correlation between what they are holding in their hands and where it should be placed in Florida’s chronology by sight.
Atlatl Antics

adapted from Poverty Point Expeditions
submitted by Cassandra Rae Harper, Outreach Coordinator of FPAN’s West Central Regional Center

Recommended grade level: 3 – 8
Sunshine State Standards: MA.A.4, MA.B.1, SC.C.2, SS.A.1, SS. B.2
Time required: 45 – 60 minutes dependent on group size
Setting: open field, approximately 50 meters long
Summary: students will use the scientific method to test the difference between the distance a dart can be thrown by hand versus the distance a dart can be thrown with an atlatl

Objectives
Each student will use the scientific method to experiment, gather and record data, analyze results, and draw conclusions about the effect that lengthening the throwing arm has on the distance a dart can be thrown.

Materials
Each group should have the following:
1 atlatl
1 dart
1 chart for measuring distance thrown by hand
1 chart for measuring distance thrown with an atlatl
1 clipboard
1 colored pencil

(To avoid confusion, it is suggested that the fletching on the darts and the colored pencils match and are a vivid color like red, blue, green, or orange.)

For the field:
8 wooden stakes marked in increments of 5 meters (5-40)
Mallet
Tape measure in meters

Background
Before bows and arrows, native hunters were using a devise called an atlatl. An atlatl is a stick with a hook on the end. The dart lays on the atlatl with the back end of the dart (feathered end) fitting into the hook. The user would lightly pinch the dart with their thumb and pointer finger, the rest of their fingers wrapped around the atlatl. Using a motion similar to casting a rod and reel, the user will throw the dart, releasing the atlatl at just the right moment to follow through.

Atlatls varied in size, shape, and complexity. Some had bone hooks, mostly made of deer bone. There were various stones tied to the atlatl to provide extra force. We
suggest using a simplified version for this exercise because it is more cost-effective and durable.

**Procedure**
1. Mark an open field in increments of 5 meters, from 5 to 40.
2. Divide group into three or four teams. Each team should be assigned a color – red, blue, green, orange. The colored pencils for the graphs and fletching on the darts should match their team’s color designation. This will make it easier for the students to know which dart is theirs – since they do not always go straight.
3. Each team should get a clipboard with their color pencil and two charts – one to measure the distance the dart is thrown by hand and with an atlatl.
4. After everyone has written their name on the chart, the first member of the team steps up to throw their dart by hand. The remaining members of the team need to stand back as far as possible so they are not accidentally injured.
5. The team member throws their dart. There is no right or wrong method – just as long as it goes forward. Once the field is safe, the team member walks out to retrieve their dart – noting the approximate distance that it traveled.
6. This distance is recorded on the chart.
7. The next person steps up and this process repeats until everyone has had their turn.
8. After all team members have thrown a dart by hand and recorded the distance, a quick demonstration of the atlatl is performed.
9. It is suggested that you give the teams a practice round with the atlatl.
10. After everyone has tried to use the atlatl at least once, get the teams back in order to throw for distance.
11. The same sequence from steps 3 through 6 are repeated, until everyone has thrown a dart with the atlatl and recorded the distance on the chart.
12. The teams then get to look at the finished charts and answer some observation questions.

**Closure**
Looking at the two charts, is there a difference in average distance that the dart flew when thrown by hand and thrown with an atlatl? What could account for this difference? (For those students who were not quite as successful as some “hunters,” they can be assured that using an atlatl is a skill.)

Would it have helped to have a weight tied to the atlatl? Why?

**Teacher Tips**
Safety first – these are weapons and should be treated with a certain amount of caution and respect. As long as you have an adult leading each team and they are in charge of the field, you should not have any injuries. Make sure that all team members not throwing stand back from the field. Do not let students run or play with the darts.
| Name | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
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| Name | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
How to Make an Atlatl and a Dart

Submitted by April Buffington, graduate student at the University of South Florida and volunteer at FPAN’s West Central Regional Center

Materials:
- 1- 7/8” diameter by 36” length wooden dowel
- String or leather
- Bamboo or river cane
- Knitting needle
- Feathers
- Super glue
- Fishing weights

Atlatl Procedure

1. First cut the wooden dowel in half. Each half can be one atl atl depending on the length preferred.
2. Draw the shape of the hook at one end. If wanted marks can be made for where the string/leather will be placed for the finger holds (see below).
3. Use a dremel or other cutting/carving tool to cut out the hook and smooth the top half of the dowel. How much wood cut away is determined by how much space between the tip of the hook and the rest of the atl atl is wanted. The lip created on the outside edges is not necessary but helpful for keeping the dart situated on the atl atl.
4. Finally, shape the top to your own liking (some examples below) and glue the string/leather where the grooves were made. Size the holes large enough for most people to use. Also tying the string on the atl atl before gluing will help to retain the size wanted for the finger holes.

5. Additional designs may be added before using a polyurethane coat to protect the wood from weather damage.

**Dart Procedure**

1. Find a good size piece of bamboo or river cane that is strong. Burnt bamboo from a local craft shop works well.

2. Get a metal knitting needle that will fit into the hollow of the bamboo and partially fill it with small round fishing weights. Clamp the end so that the weights don’t fall out. The weights are to balance the dart.
3. Put glue into the hollow of the bamboo and around the end of the needle and insert into the bamboo. Let the glue dry.

4. Next, gather three feathers and cut them down to size (as these are for demonstration purposes the size is up to you).

5. When the glue from the needle and bamboo have dried, glue the feathers on the opposite end, evenly space around the bamboo.

6. Clean off excess glue and the dart is finished!
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Activities

Historic Archaeology
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Objective
Students will be able to define archaeological terms and will be introduced to basic archaeological concepts. Through this knowledge, students will be able to dispel common misconceptions about archaeology.

Materials
Introduction to Archaeology Power Point Presentation*

Background
The general public has many misconceptions about the field of archaeology. For example, it is often confused with related fields such as paleontology and geology. Worse yet, the media often portray archaeologists as treasure hunters or looters. Even when people do have a basic understanding of the field, they often assume that students who study archaeology will not be able to find employment. The reality is that archaeology is a rigorous science practiced by dedicated and highly trained professionals who enjoy an exciting career path.

Procedure
1. Using the provided Power Point presentation and accompanying text (or an adapted version), present basic archaeological vocabulary and concepts to the students.

2. Power Point Text:
   Slide 1 Archaeology is one of the four sub-disciplines of Anthropology (the study of all humans and their immediate ancestors). Archaeology is the study of the human past through material remains. Material remains are artifacts (movable material remains, i.e. plate or spear point), features (immovable material remains, i.e. trash pit or building trench), or human remains/bones. Archaeology is NOT paleontology (the study of past animals) or geology (the study of the earth and its formation) although they share similar techniques and concepts.

* An Introduction to Archaeology Power Point Presentation has been developed for middle school students and is included on the CD. This can easily be adapted to a high school level.
Slide 2 Archaeologists work anywhere that people once occupied. The examples in the pictures (going clockwise) show archaeologists working in urban areas (Downtown Pensacola), the woods (Washington County), underwater (Pensacola Bay), the beach (Santa Rosa Island), and inside (UWF Archaeology Lab).

Slide 3 Archaeologists use a variety of tools for survey, excavation, and recording sites. The examples in the pictures (going clockwise) show archaeologists using a shovel and wheelbarrow, camera and ladder, graph paper, pencils and ruler, screen, trowel, spoon, and dustpan, remote sensing equipment {Conductivity, Ground Penetrating Radar, Gradiometer (Magnetometer), and Resistivity (not pictured)}, and Total Station.

Slide 4 The archaeological process involves many steps that follow the Scientific Method. First a site is located through Survey (Surface Collection, Research, Shovel Testing, Remote Sensing, Historical Documents). Then a site is excavated. The artifacts are then identified and analyzed in a lab and interpretations are made. Finally, archaeologists decipher ways to preserve both the site (if possible) and the information learned from it. Most importantly, archaeologists share the information they learned from the site through publications, presentations, museum exhibits, and the media.

Slide 5 In order to interpret an archaeological site, it is essential to understand stratigraphy and superposition. Stratigraphy is the site’s physical structure of geological (soils) or cultural (midden) remains deposited in layers (strata). The Law of Superposition states that in an undisturbed site each layer is younger than the layers below it and older than the ones above it.

Slide 6 Archaeologists are an important part of our community. They work in both the public and private sectors. One of the most important jobs an archaeologist can have is working for a CRM (Cultural Resource Management) firm. CRM firms primarily perform compliance work required by the government before construction.

Closure
Quiz students on the vocabulary introduced in this lecture.

Teacher Tip
The information included in this introductory lecture provides the foundation on which all further learning and understanding of archaeology will be built. It is important to emphasize the vocabulary introduced in this lecture; many of the larger concepts such as the archaeological process will be discussed in detail in future lessons.
Arcadia Sample Lesson: Invisible People
submitted by Mary Furlong, Outreach Coordinator of FPAN’s Northwest Regional Center

Recommended Grade Levels: 9-12
Sunshine State Standards: SS.A.1.4, LA.A.1.4, LA.A.2.4
Time Required: 1-2 Class Periods
Location: Classroom

Objective
Students will use archaeological and historical evidence to gather information about “Invisible People” in the past.

Materials
Primary and Secondary Sources about a Site or Time Period
Artifacts (or Archaeological Information) from that Site or Time Period

Background
Historical archaeology is often used to tell the story of disenfranchised people, who are often “invisible” in the historical documents. Only through using both historical documents and archaeological evidence can a more complete picture of the past be gained.

Procedure
1. Have students research the Arcadia Mill site, focusing on the people involved with the site (i.e., owners, workers, families). Students should take detailed notes and should present their findings to the class.
2. After students present information they have learned about the people involved with the Arcadia Mill site, discuss who is and is not represented. Whose names have/have not been recorded? Is the level of information available in the historical record equal for owners/workers, men/women, adults/children, and amongst different racial and ethnic groups?
3. Discuss why some people are over/underrepresented. Does this create a bias in the historical record?
4. Examine artifacts and other archaeological information from the Arcadia Mill site. Are the “invisible” or underrepresented groups visible in the archaeological record? What are the biases of the archaeological record?

Closure
Have students write a summary of the information they gathered from their historical and archaeological research. In their writing they should compare and contrast the information available in the historical and archaeological records and assert how the most complete picture of the past can be obtained.
**Teacher Tip**

Use this same procedure when talking about all different periods of the past. How is what we know biased by the historical record? How is it biased by the archaeological record? When learning about the past who are the people we focus the most attention on (i.e., presidents, generals, kings) and who do we often ignore (i.e., poor, children, “average joe”)? What will people of the future not know about TODAY because of these biases?
Arcadia Sample Lesson: Predictive Modeling & the Natural Environment

Submitted by Mary Furlong, Outreach Coordinator of FPAN’s Northwest Regional Center

Recommended Grade Levels: 9-12
Sunshine State Standards: SS.B.1.4, SS.B.2.4, SC.H.1.4, MA.E.3.4
Time Required: 2 Class Periods
Location: In Classroom after Touring Site

Objective
After completing this activity students will be able to use information about local history and the natural environment to predict the locations of archaeological sites.

Materials
Maps or Gazetteer of Northwest Florida
Historic Maps, Documents, or Secondary Sources referring to Water-Powered Mill Sites in NW Florida

Arcadia Mill Site Contact Information
www.historicpensacola.org/arcadia
5709 Mill Pond Lane, Milton, FL

Background
Often faced with limited time and funding, archaeologists must survey large areas of land when looking for sites. To focus their efforts, archaeologists use models based on conditions of the natural environment and historical accounts to predict where sites and specific areas within sites are located. Proximity to natural resources (i.e., freshwater) and topography often dictate where a site is located. In addition, historical documents (i.e., maps) often provide accounts describing the locations and layouts of sites.

Procedure
1. Tour the boardwalk of the Arcadia Mill Site, paying special attention to the natural environment of the site (i.e., water, trees, topography, soils, rock outcrops).
2. After the tour discuss how the natural environment influenced the founders of Arcadia to choose that location for their water-powered mills. What are the pros and cons of this site?
3. Create a list of criteria for choosing the location of a water-powered mill (i.e., proximity to water, transportation, work force)
4. Using modern maps of Northwest Florida select other possible locations for water-powered mill sites. Discuss how an archaeologist would design a survey to locate and access the maximum number of sites.
5. Use criteria lists and maps to create a predictive model for locating sites.
6. Compare the predictive model to information found in historical documents about locations of other water-powered mill sites. How did the model compare with the historical record?

7. In addition to using the historical record, how else could archaeologist test their predictive model?

8. What other types of sites (i.e. forts, shipwrecks, villages) could be found using predictive modeling? What criteria are needed for large/small settlements, agriculture, defense, trade, etc.?

**Closure**

Have students (in groups or as individuals) write a short report about how they followed the steps of the Scientific Method to create and test their predictive model. Different groups/students may have selected different criteria or locations for possible sites. Have the students present their models and discuss the differences and similarities between them.

**Teacher Tip**

This lesson can be as detailed or as simple as desired. After touring the site, one class period should be dedicated to understanding and creating the predictive model and another to testing it and drawing conclusions.
ACTIVITIES

Underwater Archaeology
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**Build a Boat**

Adapted from *K.C. Smith and Mary Furlong*

submitted by Dr. Kira Kaufmann, Marine Archaeologist of FPAN’s Southeast Regional Center

Objectives
- To provide students with an understanding of the process of designing an effective vessel to transport goods across water barriers. Students will:
  1. Learn how to design a boat from only the materials in their boat bag kits
  2. Employ critical thinking skills to design a boat that will float, that will withstand water movement, and that will hold weight
  3. Explain how Archaeologists interpret boat construction from shipwreck cultural resources

Materials
- Boat kits (gallon zip lock bag with 4 popsicle sticks, 4 straws, 4 cups, 4 pipe cleaners, 2 pencils, 4 pieces of string, 8 rubber bands, and 4 sandwich size baggies), Miniature “ocean” or tub to test run the boats, and cargo (small rocks, marbles, etc.)

Background
- Maritime trade by transporting goods across waterways and oceans is important because it has historically been the most important way goods, services, ideas, and cultural values were shared between different groups of people. The study of boat construction teaches Nautical Archaeologists about where boats came from, what was important to the boat builders, and how goods were transported.

Procedure
1. Define terms (starboard, port, freeboard, hull, draft, sink, float, displacement, cargo, design, weight load, swamp, capsize, and shipwreck) that will be used.
2. Pass out a “Build a Boat” bag to each student or group. Students can work individually or as a team.
3. Explain the step-by-step tasks the students must complete to build their boats. For younger students, provide some hints as to how to use the items.
4. Have students lay out kit materials and analyze the materials. Discuss the physics of displacement in an effort to assist students to decide which materials they want to use to build their boats.

5. Have students build their boats. Go around the room and provide assistance or suggestions where necessary.

6. When their boats are built, have the students come up one at a time to the test tank where you will test their boats for suitability in floating, wave action, and cargo capacity. Ask students to name their boats.

**Closure**

Discuss with students the ideas of displacement and design. When everyone is finished, ask each person or group why they built their boat the way they did. Ask them the difference between their boats and the boats of ancient mariners. Explain the importance of shipwrecks to our understanding of ancient boat building technologies and that archaeologists can only learn about these kinds of human activities from intact archaeological sites and often times not from shipwrecks that have been salvaged.

**Teacher Tips**

For younger children, working in teams with an adult mentor works best. For older students, working alone or in teams independant of a mentor works well. Sometimes it helps to have an “example” boat on display to encourage students that it can be done and to help facilitate ideas of boat construction.

Also, it is possible to get many of the materials for the “boat kits” for free from places like “Trash to Treasure” or request students bring some of the materials from home.
Supporting Materials: Examples of Boat Designs

Houseboats have spacious living quarters at deck level. The hull is usually shallow, broad, and flat. Houseboats are designed for calm waters.

steering controls:
Means of controlling the steering nozzle.

safety lanyard:
Short cord for attaching the ignition safety switch to your wrist or personal flotation device (PFD).
Supporting Materials: Examples of Hull Designs

**Beam:** Maximum width of hull

**Freeboard:** Distance from water to lowest point of the boat where water could come on board

**Draft:** Depth of water needed to "float" a boat

**Hull:** Body of boat; basic structure or shell

**Propeller:** Multi-bladed, rotating wheel that propels the boat

<table>
<thead>
<tr>
<th>Hull Shapes</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flat Bottom Hull</strong></td>
<td>Has a shallow draft and is relatively stable. Good for fishing in small lakes and rivers. They are usually the least expensive to build.</td>
<td>Provides a rough ride and tends to pound in choppy water.</td>
</tr>
<tr>
<td><strong>Deep Vee Hull</strong></td>
<td>Gives good stability and less pounding in rough water than other designs.</td>
<td>Takes more power to move at the same speed as flat bottom hulls. May roll or bank in sharp turns.</td>
</tr>
<tr>
<td><strong>Round Bottom Hull</strong></td>
<td>Moves easily through the water offering a slow but comfortable ride.</td>
<td>Has a tendency to roll.</td>
</tr>
<tr>
<td><strong>Multi-Hull</strong></td>
<td>The multi-hull has greater stability because of its wide beam.</td>
<td>Needs a large area when turning.</td>
</tr>
</tbody>
</table>
You Sunk My Battleship!!!
(and other musings under the sea)
submitted by Sarah Miller, director of FPAN’s Northeast Regional Center

Recommended grade level: 4-5
Time required: 3 hours or 3-1 hour sessions
Setting: classroom
Summary: students will learn about boats and Maritime archaeology by playing a version of Battleship and building their own vessel.

Objectives
a. To utilize Cartesian grid coordinates.
b. To acquire appreciation for underwater sites.
c. To experiment with physics concept of buoyancy and its application to shipwrecks.

Materials
Battleship games
Florida’s Underwater Preserve poster (included on CD)
Boat building kits: at least 1 for every 2 students (contents may vary).
Popsicle stick, trash bag twist ties, string, egg carton sections, plastic bag, straws, pencils.
Dive gear
Rocks for testing buoyancy

Procedure
a. Session 1: Read Leap Through Time: Shipwreck book to students. Discuss what happens to the material remains over time and draw special attention to the underwater excavation scene toward the end.

b. Session 1: Using Battleship game students will first play a straightforward game of battle ship using grid coordinates.

c. Session 1: Archaeologist will talk about how terrestrial methods translate to working underwater. A dive kit will be introduced as the tools used by archaeologist. Describe the visibility in sea water and really describe how different a shipwreck looks (scattered ballast, planks, some cannon, anchors) rather than whole ships beneath the surface. The different approaches to mapping will transition to the next phase of the lesson.
d. Session 2: Using the battleship game, this time do an outline of a boat or shipwreck. Students will map wreck sites using the battleship platform. Difficulties in accuracy and communicating underwater will be discussed, as well as different approaches archaeologists take when doing their center lines.

e. Session 3: Boat building activity: Archaeologists will talk about shipwreck narratives and patterns as ships sink. Forces of buoyancy and gravity are also at work. Students will be asked to construct a vessel with a partner and do a float test, as well as a buoyancy test (how many stones the vessel can hold until it sinks).

**Closure**

a. What are maritime resources?
b. How are underwater artifacts different from terrestrial artifacts?
c. How do the methods differ on land vs. on sea?
d. What tools are archaeologists using to recover their data?
e. What other disciplines do archaeologists draw from in collecting data.

**Teacher Tips**

Talk about shipwrecks as time capsules. Ask them about their experience with time capsules. How are archaeological sites like time capsules, and how are they different?

It has been said that to study shipwrecks is to study the world. Highlight for students the global community evident in shipwrecks. How global are our communities today? Where else might you find a mixing of so many cultures from around the world?
ACTIVITIES

Integrated (multiple class periods/multiple disciplines)
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Enriching Traditional Subjects
Through the Teaching of Archaeology

Submitted by Kory Bennett, MA, RPA, science teacher at Memorial Middle School, Tampa

Recommended grade level: 6 – 12
Time required: dependent on activity

Summary: Through the teaching of archaeology many of the traditional secondary school subjects (e.g. math, science, language arts, and social studies) can be reiterated and enriched. This undertaking cannot be conducted haphazardly. When teaching archaeology, exact coordinated planning, open communication, and the contextualization of information presented are of the utmost importance to ensure a successful outcome.

**Objective**

This project is intended for an instructor teaching a unit of archaeology or an archaeology course. It is not recommended that teachers of various subjects pick and choose random activities for their students to carry out (see Magnet Schools for exception). Instead, it is important that students have an introduction to archaeology in order to understand how the terminology, concepts, methods and theories learned fit together within the context of current anthropological archaeology. This particular construct helps teachers of archaeology (on various grade levels) accentuate and enrich the students’ educational experience. Through teaching archaeology, the Sunshine State Standards (SSS) for traditional subjects taught in school will be introduced or reiterated using examples from archaeological methods and theory.

**Procedure**

Each core course is listed in the table below with archaeological-based teaching points, correlating Sunshine State Standards, suggestions of activities (all taken from the Downloadable Activity Guides – web addresses included in this packet), and information on where to find these resources. These few examples illustrate the variety of subject matters encompassed by archaeology. Please see the attached Suggested Internet Sites for more information and ideas.

It is recommended that teachers of archaeology correlate his/her lesson plans with the topics being covered in other classes at the same time. Whether or not that is possible, it is the responsibility of the teacher to inform the students of the connections between concepts learned in archaeology class and those learned in other subjects. When teachers of subjects other than archaeology want to utilize the activities listed in the table below, they should coordinate with the archaeology teacher. If there is not an archaeology teacher, it is the responsibility of the interested instructor to provide an introduction to archaeology before conducting an activity. When students do not understand the basics of archaeology, the value of the activity diminishes.

Teachers should begin by correlating activities from the table with their in-place curriculum. The activities below will help to illustrate and enrich the archaeological
concepts being taught in class. As a consequence, the SSS of other academic subjects will be addressed naturally. The instructor should conduct background research in order to augment their presentation when introducing an activity. The more contextual information provided to the students the stronger the impact the activity will have. After conducting an in-class activity teachers should reflect upon the experience and make adjustments for the future according to their observations.

Magnet Schools

A magnet school using archaeology as an attractor may choose to integrate archaeology into every classroom. In this situation, teachers of each subject would relate lesson plans throughout the school year. Common curriculum must be coordinated with great precision, the goal being seamless introduction of information. In order to support effective coordination, a common focus should be implemented. A simulated site would be an ideal focus for a magnet school. This site could be archaeological or forensic in nature, with the focus being local, global, or virtual. This would allow teachers to talk about archaeology in their classrooms using a common archaeological context. Instead of presenting random activities, teachers can create lesson plans that build upon the students’ common knowledge of archaeology.

For example, the art teacher may have the students draw, or even replicate artifacts that have been recovered from the simulated site. The science teachers may want to conduct experimental archaeology projects related to the site in order to illustrate the scientific method. Language Arts teachers may have students write journal entries about experiences on the simulated site. Math teachers can demonstrate a practical use of the Pythagorean Theorem while plotting test units at the site. All the while each instructor should coordinate theses efforts with the archaeology teacher and course. The activities listed in the table below should be tailored to suit the objectives of each individual program. Classes should be encouraged to work together by having teachers instruct joint, extended classes. This project can also be augmented by guest speakers and/or field trips to an archaeology site or excavation.

An archaeology week could be planned for the entire grade level, so that each class activity builds towards the investigation or excavation of a simulated site. For this particular model teachers must stay in constant communication, lesson plans must be precisely coordinated and all students should be presented with a common introduction to archaeology. Without a strong common foundation and active communication between all involved parties this program would be subject to collapse.

Tips for Teachers

It is important to have high levels of participation with each activity. The structures presented by Spencer Kagan (1994) can be utilized with most of the activities listed below. This will promote a sense of responsibility in each student to participate and actively learn. Teachers should also remember to be creative. The activities below are only suggestions. By using those listed as guides, teachers can create activities that are modified to their situation. Teachers should also build a strong base of knowledge in archaeology. This will aid in assuaging anxiety when presenting the information and allow them to expand upon student questions and ideas during class instructions.
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<tr>
<th>Core Courses</th>
<th>Teaching Points</th>
<th>Sunshine State Standards</th>
<th>Activities</th>
<th>Resources</th>
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</thead>
<tbody>
<tr>
<td><strong>Math</strong></td>
<td>gridding a site laying out units measurements artifact counts use of database lab procedures word problems</td>
<td>MA.A.5.3 (number theories) MA.B.1.3 (real world measures) MA.B.3.3 (real world problems) MA.D.1.3 (patterns) MA.E.1.3 (manage information) MA.E.3.3 (inferences)</td>
<td>Graveyard Archaeology Stratigraphy and Chronology Playground Archaeology AtlAtl Antics ArchaeologyLand Lesson 7: Digging a Site</td>
<td>Archaeology in the Classroom, pg. 47 Classroom Archaeology, pg. 46 Expeditions into Ohio's Past, pg. 79 Poverty Point Expeditions, pg. 44 SAA’s Archaeology for the Public Teaching Tools, pg. 22</td>
</tr>
<tr>
<td><strong>Science</strong></td>
<td>Experimental archaeology (recreate native lifeways) use scientific method science fair projects site distribution activity areas archaeological methods</td>
<td>SC.G.1.3 (living environments) SC.G.2.3 (limited resources) SC.H.1.3 (scientific process) SC.H.2.3 (patterns) SC.H.3.3 (technology)</td>
<td>Excavating a Wastebasket Site in a Bag Habitats of the Hopewell Poverty Point Cooking Balls What Out to Rot Lesson 11: Taphonomy</td>
<td>Archaeology in the Classroom, pg. 45 Classroom Archaeology, pg. 36 Expeditions into Ohio’s Past, pg. 95 Poverty Point Expeditions, pg. 60 SAA’s Teaching Archaeology Sampler Teaching Tools, pg. 34</td>
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<tr>
<td><strong>Language Arts</strong></td>
<td>journal writing metacognitive methods reflexive methodology article writing newspaper reporting research methods critical reading literature exploration human condition</td>
<td>LA.B.1.3 (writing) LA.B.2.3 (communicate ideas) LA.C.1.3 (listening strategies) LA.C.2.3 (viewing strategies) LA.C.3.3 (speaking strategies) LA.D.1.3 (nature of language) LA.D.2.3 (power of language) LA.E.1.3 (features of literature) LA.E.2.3 (critically respond to writing)</td>
<td>Archaeology Words Archaeology in the Library Fun With Words Bird Gods? Fox Man? Long Tail? Too Good to Myth! Imagine Life in Ancient Times Lesson 15: Protecting the Past</td>
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</tr>
<tr>
<td><strong>Reading</strong></td>
<td>literature review comprehension testing</td>
<td>LA.A.1.3 (writing) LA.A.2.3 (communicate ideas)</td>
<td>Newspaper Archaeology Special Techniques Sharing Ohio’s Prehistory Artifacts All Over the Place Stewardship of Cultural Resources So You Want to be an Archaeologist?</td>
<td>Archaeology in the Classroom, pg. 46 Classroom Archaeology, pg. 55 (El Nuevo Constante booklet on Louisiana’s Division of Archaeology website) Expeditions into Ohio’s Past, pg. 29 Poverty Point Expeditions, pg. 97 SAA’s Teaching Archaeology Sampler Teaching Tools, pg. 50</td>
</tr>
<tr>
<td>Core Courses</td>
<td>Teaching Points</td>
<td>Sunshine State Standards</td>
<td>Activities</td>
<td>Resources</td>
</tr>
<tr>
<td>------------------------------</td>
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</tr>
<tr>
<td><strong>Social Studies - Geography</strong></td>
<td>Cultural anthropology local diachronic survey expand on global views time and space basic principles link materials with culture</td>
<td>SS.B.1.3 (spatial terms) SS.B.2.3 (interaction of people and environment)</td>
<td>Trenchcoat Archaeology Prehistoric Culture Chart Locate Hopewell Culture Nat’l Park Topography Training Multidisciplinary Science: Avery Island Lesson 14: How Old Is It?</td>
<td>Archaeology in the Classroom, pg. 58 Classroom Archaeology, pg. 62 Expeditions into Ohio’s Past, p.41 Poverty Point Expeditions, pg. 16 SAA’s Teaching Archaeology Sampler Teaching Tools, pg. 43</td>
</tr>
<tr>
<td><strong>Social Studies - History</strong></td>
<td>research local background study simulated site diachronic studies common global problem</td>
<td>SS.A.1.3 (chronology) SS.A.2.3 (history to Renaissance) SS.A.6.3 (Florida history)</td>
<td>Sites and Threats Date Clues Comparing Timelines Prehistoric Pump Drill Artifact Interpretation Lesson 17: Georgia’s Prehistoric Past</td>
<td>Archaeology in the Classroom, pg. 50 Classroom Archaeology, pg. 51 Expeditions into Ohio’s Past, pg. 31 Poverty Point Expeditions, pg. 80 SAA’s Education Station Teaching Tools, pg. 52</td>
</tr>
<tr>
<td><strong>Visual Arts</strong></td>
<td>artistic site interpretation museum presentation ceramic studies artifacts sketching Spatial conception</td>
<td>VA.A.1.3 (create 2D/ 3D art) VA.C.1.3 (history/ culture) VA.D.1.3 (aesthetic value)</td>
<td>Clay Pottery Making Pottery Reconstruction Why is the Past Important? Part One Wattle You Build Next? Archaeology/Land Lesson 10: Making an Impression</td>
<td>Archaeology in the Classroom, pg. 70 Classroom Archaeology, pg. 53 Expeditions into Ohio’s Past, pg. 47 Poverty Point Expeditions, pg. 40 SAA’s Archaeology for the Public Teaching Tools, pg. 31</td>
</tr>
</tbody>
</table>
Young Middle School Archaeological Site
Math Worksheet

Date ____________________

Area being excavated______________________________

Recorder (s) _________________________________________

Total number of artifacts: ____________________

<table>
<thead>
<tr>
<th>Assemblage</th>
<th>#</th>
<th>% of total</th>
<th>description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undecorated ceramics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decorated ceramics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glass</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Window glass</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Square head nails</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Furniture nails</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

On Monday we recovered 10 nails, Tuesday 9 nails, Wednesday 12 nails and Thursday 8 nails. Today we found 10 nails. What is the median number of nails found each day this week? What is the mean?

________________________________________________________________________

________________________________________________________________________

Define the following terms:

sherds:

artifact assemblage:

Using your knowledge of the site and the data presented above, what do you think the area being excavated was originally used for?
Experimental Archaeology Data Sheet
Science Worksheet

Observations made on the site:
______________________________________________________________________________________
______________________________________________________________________________________

Question or problem:
______________________________________________________________________________________
______________________________________________________________________________________
______________________________________________________________________________________
______________________________________________________________________________________

What background research should you conduct?
______________________________________________________________________________________
______________________________________________________________________________________
______________________________________________________________________________________
______________________________________________________________________________________

**Hypothesis**: If we use four different vessels types found on our site to carry water a distance of 500 meters, **then** the container with the narrow neck will be best suited for transporting water, **because** the narrow neck will allow the least amount of water to leak out of the container during transport.

Procedure (How to test the hypothesis):
______________________________________________________________________________________
______________________________________________________________________________________
______________________________________________________________________________________
______________________________________________________________________________________
______________________________________________________________________________________
______________________________________________________________________________________
______________________________________________________________________________________
______________________________________________________________________________________
______________________________________________________________________________________

What would you do during and after conducting the Procedure?
______________________________________________________________________________________
______________________________________________________________________________________
______________________________________________________________________________________
______________________________________________________________________________________
Curricula Framework
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Introduction to Archaeology for 6th Grade (9 weeks)
submitted by Cassandra Rae Harper, Outreach Coordinator of FPAN’s West Central Regional Center

Recommended grade level: 6th – 8th grade
Time required: 1 class period for approximately 9 weeks
Setting: mostly classroom, some outside projects
Summary: students will learn about anthropology, archaeology, and prepare to develop their own cultures to excavate

Objectives
To provide students with an understanding of anthropological archaeology.

Materials
Three activity books were used in the planning of this curriculum – Intrigue of the Past, Poverty Point Expeditions, and Frontiers in the Soil. These are not the only guides available, there are listings of downloadable activity guides, internet resources, and printed material in this packet. I have also included the daily breakdown of this curriculum to show how the framework was to be implemented.

Background
The center was contacted by a magnet middle school to help develop archaeology classes as an attractor. This first class was written for 6th graders and is 9 weeks long to fit into the wheel rotation for that grade. It is written with the assumption of no prior archaeological knowledge by the students and culminates into a simulated excavation of cultures created by the students.

Another middle school, Terrace Community Middle School (TCMS), had been doing this mock dig activity in conjunction with their ancient civilizations unit. I was asked to participate with my son’s 6th grade class, and this experience became the foundation for the introductory curriculum. A big thank you to Judy Turner for all her help and support. I would also like to thank my colleague, Shannon Peck-Janssen, for all her expertise putting an idea into a useable framework format.

Teacher Tips
Mock digs are a wonderful, hands-on way for students to learn about archaeology, and pairing that activity with the students creating their own cultures certainly works well at a middle school level. However, please ask for the assistance of an archaeologist when conducting such an activity. It would be helpful to have that person speak to the class prior to the students creating their artifacts, and share some insights on artifacts, interpretation, preservation and excavation issues. Then ask the archaeologist to supervise and equip the excavations. Our center is happy to make those arrangements, please contact us for further details and to schedule that activity.
<table>
<thead>
<tr>
<th>Content</th>
<th>Performance Standards</th>
<th>Suggested Activities</th>
<th>Teaching Points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Anthropology</strong> (1 week)</td>
<td>Students will be able to define anthropology.</td>
<td>“Culture Everywhere”</td>
<td>anthropology</td>
</tr>
<tr>
<td>SC.G.1.3.3</td>
<td>Students will be able to define the four fields of anthropology.</td>
<td><em>Intrigue of the Past</em>, Lesson 2 looking at the archaeological record of cultures studied in Social Studies class</td>
<td>biological anthropology</td>
</tr>
<tr>
<td>SC.H.1.3.3</td>
<td>Students will be able to understand the concept of culture.</td>
<td>“Why Is The Past Important?”</td>
<td>cultural anthropology</td>
</tr>
<tr>
<td></td>
<td>Students will be able to understand how anthropologist study cultures by using a four-field approach.</td>
<td><em>Intrigue of the Past</em>, Lesson 1</td>
<td>linguistics</td>
</tr>
<tr>
<td><strong>Artifacts</strong> (2 weeks)</td>
<td>Students will be able to define artifact.</td>
<td>“Classification and Attributes”</td>
<td>pottery</td>
</tr>
<tr>
<td>SS.A.1.3.1</td>
<td>Students will be able to provide examples of artifacts.</td>
<td><em>Intrigue from the Past</em>, Lesson 6</td>
<td>tools</td>
</tr>
<tr>
<td>MA.D.1.3</td>
<td>Students will understand why humans create artifacts.</td>
<td>(add frequency table/bar graph)</td>
<td>art/ornamentation</td>
</tr>
<tr>
<td>MA.E.1.3</td>
<td>Students will be able to interpret how artifacts were used in the past.</td>
<td>“Too Good to Myth!”</td>
<td>artifact form</td>
</tr>
<tr>
<td>MA.E.2.3</td>
<td></td>
<td><em>Poverty Point Expeditions</em> p. 92</td>
<td>artifact function</td>
</tr>
<tr>
<td><strong>Development of</strong></td>
<td>Students will learn about the environmental and human factors that affect the site formation process.</td>
<td>“Chronology: The Time of My Life”</td>
<td>stratigraphy</td>
</tr>
<tr>
<td><strong>Archaeological Sites</strong></td>
<td></td>
<td><em>Intrigue from the Past</em>, Lesson 5</td>
<td>Principle of Superposition</td>
</tr>
<tr>
<td>(1 week)</td>
<td></td>
<td></td>
<td>site formation process</td>
</tr>
<tr>
<td>SC.D.1.3</td>
<td>Students will be able to define principle of Superposition.</td>
<td>Profile and Stratigraphy Lessons</td>
<td></td>
</tr>
<tr>
<td>SC.D.2.3</td>
<td>Students will be able to define site disturbances.</td>
<td><em>Frontiers in the Soil</em>, p. 10-18</td>
<td></td>
</tr>
<tr>
<td>SC.G.2.3.1</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Consultants: Judith Turner, Social Studies Subject Area Leader for Terrace Community Middle School
Shannon Peck-Janssen, Archaeology/World History Teacher at Freedom High School
### Content

<table>
<thead>
<tr>
<th>Archaeological Interpretation (2 weeks)</th>
<th>Performance Standards</th>
<th>Suggested Activities</th>
<th>Teaching Points</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Students will be able to define artifact association.</td>
<td>“Artifacts All Over the Place” <em>Poverty Point Expeditions</em> p.97</td>
<td>artifact association</td>
</tr>
<tr>
<td></td>
<td>Students will be able to define site function.</td>
<td>“Observation and Inference” <em>Intrigue of the Past</em>, Lesson 3</td>
<td>artifact context</td>
</tr>
<tr>
<td></td>
<td>Students will learn the challenges associated with learning about the past.</td>
<td>“Context” <em>Intrigue from the Past</em>, Lesson 4</td>
<td>site attributes</td>
</tr>
<tr>
<td></td>
<td><strong>SC.H.1.3.7</strong></td>
<td></td>
<td>activity areas</td>
</tr>
<tr>
<td></td>
<td><strong>SC.H.2.3</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Creating and Interpreting a Culture (2 weeks)</th>
<th>Students will learn how to define a culture through its materials.</th>
<th>Have students create their own culture and choose the objects that will represent that group.</th>
<th>excavation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MA.B.1.3</strong></td>
<td>Students will learn how to conduct an archaeological excavation.</td>
<td>Groups bury their artifacts, and another group will excavate them. Each group will interpret the artifacts they find, and consolidate the information in a typed report with frequency/bar graphs.</td>
<td>material culture</td>
</tr>
<tr>
<td><strong>MA.B.2.3</strong></td>
<td></td>
<td></td>
<td>interpretation</td>
</tr>
<tr>
<td><strong>MA.E.3.3</strong></td>
<td>Students will learn how to interpret material culture discovered during excavation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SC.H.3.3.6</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SC.H.3.3.7</strong></td>
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</tr>
</tbody>
</table>
Daily Breakdown for 6th Grade Archaeology Curriculum

**Anthropology** (1 week)

Week 1

Day 1– Bill Nye Archaeology video (26 min.) – comes with teacher materials and quiz
Chocolate chip cookie excavation
*Materials needed: 1 Chips-ahoy chunky cookie, 1 napkin, and 1 plastic toothpick per student*

Day 2– Journal and Folder Creation
Students will be keeping their class assignments and materials in a folder and a composition notebook for journaling activities
*Materials needed: 1 three-prong folder, notebook paper, and 1 composition notebook per student*

Day 3– Define anthropology and introduce the four fields of anthropology (linguistics, biological anthropology, cultural anthropology, and archaeology).
Have students write down terms and definitions for their folder.

Day 4– Reinforce concept of culture by tying into Social Studies lessons on beginning civilizations.

Day 5– Lesson 2: Culture Everywhere from Intrigue of the Past
Have students make a journal entry regarding closure questions from lesson.

**Artifacts** (2 weeks)

Week 2

Day 1– FPAN Presentation/visit
Florida’s prehistoric sequence will be introduced using a PowerPoint presentation and showing students artifacts from FPAN’s educational collection

Day 2– Have students fill out the “What’s Missing?” artifact sheet about their favorite artifact from yesterday’s talk (pictures provided in PowerPoint format)

Day 3– Lesson 6: Artifacts from a Mining Camp from Intrigue of the Past

Day 4– Construct frequency tables and bar graphs from yesterday’s classification lesson
Have students make a journal entry regarding the usefulness of classification to archaeologists

Consultants:
Judith Turner, Social Studies Subject Area Leader, Terrace Community Middle School
Loretta Waters, Head Teacher, Young Middle Magnet School
James Poulin, Science Teacher, Young Middle Magnet School
Kenya Sutton, Math Teacher, Young Middle Magnet School
Daily Breakdown for 6th Grade Archaeology Curriculum

Day 5- Computer Development of Archaeological Sites research on the four fields of anthropology

Week 3
Introduce the material and have students begin developing their myth

Day 7- Group students according to which main character they choose
Have groups write a short play depicting their collective story

Day 8- Have groups perform their myth
Have the students journal about a symbol in their culture, where it can be found and what is its meaning

(Week 4)

Day 1- Aquarium Stratigraphy lesson plan, p. 15 from Frontiers in the Soil
Materials needed: aquarium; stick (3”-4” long, 3” in diameter); cardboard; sturdy plastic cup or scoop; paper cup; 1 cup of potting soil; 6 cups of each – red clay, sand, top soil; several prehistoric and historic “artifacts”; small hand rake; teaspoon; tablespoon.

Day 2- Have students suggest ways that humans influence site formation
Have students suggest ways that the environment influences site formation
How are sites disturbed by people, animals, and natural causes?

Day 3- Chronology: The Time of My Life, Lesson 5 from Intrigue of the Past

Day 4- Profile and Stratigraphy Lesson, p. 10 from Frontiers in the Soil
Challenger Stratigraphic Puzzle Lesson Plan, p. 12 from Frontiers in the Soil

Archaeological Interpretation
(Week 5 – 8, with interruption from FCAT)

Day 1- Observations and Inference, Lesson 3 from Intrigue of the Past
Part 1 - Boy in the Water

Day 2- Observations and Inference, Lesson 3 from Intrigue of the Past
Part 2 – An Ancient Coin

Consultants:
Judith Turner, Social Studies Subject Area Leader, Terrace Community Middle School
Loretta Waters, Head Teacher, Young Middle Magnet School
James Poulin, Science Teacher, Young Middle Magnet School
Kenya Sutton, Math Teacher, Young Middle Magnet School
Daily Breakdown for 6th Grade Archaeology Curriculum

Day 3- Use the Evaluation section of this lesson as a journal exercise.

Day 4- Context, Lesson 4 from Intrigue of the Past

Day 5- Scientific Inquiry, Lesson 7 from Intrigue of the Past

Day 6- It’s in the Garbage, Lesson 8 from Intrigue of the Past

*Materials needed: small bags of garbage, plastic tarps, rubber gloves.*

Day 7- continuation of Lesson 8

Day 8- 11 Artifacts All Over the Place, p. 103 Poverty Point Expeditions

(this material will reinforce FCAT skills)

Day 12- Graveyard Archaeology, p. 47 in SGA’s Used Archaeology

Using this lesson plan, divide classes into groups and give them a section of the graveyard to study. Have students take notes regarding date ranges, ages of deceased, iconography on the tombstones, and the size, shape, and material of the grave markers.

Day 13-The students can put together a report of their findings to share with the class. The class can collectively compare and contrast the sections of the graveyard.

**Creating and Interpreting a Culture** (2 weeks)

Throughout the program, students will be given research time to discover different systems of government, religion, economy, education, business, subsistence, technology, family units, art and iconography, and leisure.

**The following exercises should be done in small groups and as privately as possible. Instruct the students not to discuss their culture with students not in their group.**

Day 1- Students are broken into small groups and begin to discuss the creation of their culture based on their previous research – it can be past, present, or future.

Day 2- Students begin to write a description of everyday life in their culture.

Day 3- Students begin to consider what cultural material could represent everyday life in their constructed culture.

Consultants:
Judith Turner, Social Studies Subject Area Leader, Terrace Community Middle School
Loretta Waters, Head Teacher, Young Middle Magnet School
James Poulin, Science Teacher, Young Middle Magnet School
Kenya Sutton, Math Teacher, Young Middle Magnet School
Day 4- Students create a list of items and begin to collect items from home or construct items in class. **Anything brought from home is likely to get broken or lost. Not everything that goes into the ground comes out of it!**

Day 5- Students finish bringing in or making their materials.

Day 6- Students are prepped in regards to archaeological techniques of excavation and mapping. They are reminded of important concepts like context and stratigraphy. (An activity for teaching this material is in the works!!)

Day 7- Students bury their cultures in 1 meter by 1 meter units. The depth of the unit shouldn’t be more than 20-30 centimeters, otherwise the next group will not have enough time to excavate the material. Troweling is SLOW work.

Day 8- Students excavate another classes’ culture. Have some students take notes as to location and affiliation of artifacts. If possible, take photos of artifacts in situ (in the ground).

Day 9- Groups begin to interpret the material culture they excavated. Notes are taken on artifact attributes. What was found together? In the same layer?

Day 10-Students begin to write a report listing the artifacts they found, classifying them into categories, creating a chart to show distribution, and interpreting the culture.

Day 11-Reports are available to share. Groups find out how close their interpretations came to the everyday life of that culture.

Consultants:
Judith Turner, Social Studies Subject Area Leader, Terrace Community Middle School
Loretta Waters, Head Teacher, Young Middle Magnet School
James Poulin, Science Teacher, Young Middle Magnet School
Kenya Sutton, Math Teacher, Young Middle Magnet School
Archaeology Curriculum for High School

submitted by Shannon Peck-Janssen, Freedom High School, Tampa, Florida

<table>
<thead>
<tr>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recommended grade level:</strong> 9th – 12th grade</td>
</tr>
<tr>
<td><strong>Time required:</strong> 1 semester for an independent course</td>
</tr>
<tr>
<td><strong>Setting:</strong> mostly classroom, some outside projects</td>
</tr>
<tr>
<td><strong>Summary:</strong> students will learn about the methods and theories that drive the field of archaeology as well as develop research writing skills and higher order thinking</td>
</tr>
</tbody>
</table>

**Materials**
Course materials include Kenneth Feder’s textbook “Linking to the Past: a Brief Introduction to Archaeology” and Price & Gebauer’s “Adventures in Fugawiland.”

**Background**
Freedom High School students’ expressed an overwhelming interest in archaeology and anthropology as a field of study. To accommodate these interests and to increase multidisciplinary education between high school subjects, I developed the following curriculum for an archaeology course.

**Teacher Tips**
Archaeology can be taught at the high school level as its own course or as supplementary curriculum to other social studies classes including Ancient History, World History and American History. Many archaeology education resources are available online including developed lesson plans from the Archaeological Institute of America, the Society of American Archaeology, and the American Schools of Oriental Research.
<table>
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</thead>
<tbody>
<tr>
<td><strong>Big Idea</strong> Students will:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anthropology</td>
<td>define the four subfields understand the interaction of the four subfields</td>
<td></td>
<td>Anthropology Culture Adaptation Holistic Linguistics Archaeology Biological Anthropology Cultural Anthropology</td>
</tr>
<tr>
<td>Archaeology</td>
<td>understand the history and development of archaeology discover jobs archaeologists hold discover funding opportunities</td>
<td></td>
<td>CRM Academic vs. Salvage Archaeology Curator Culture historic archaeology Processual archaeology Post processual archaeology</td>
</tr>
<tr>
<td>What are artifacts?</td>
<td>define an artifact, ecfact and feature understand how to categorize artifacts understand how to interpret what artifacts represent</td>
<td>Garbology project M&amp;M's attribute game</td>
<td>Artifact Ecofact Feature Garbology Attribute Variable</td>
</tr>
<tr>
<td>Stone tools</td>
<td>understand how archaeologists use stone tools to interpret past events learn the different attributes of stone tools</td>
<td>flint knapping</td>
<td>debitage Vitreous Conchodial Cryptocrystalline</td>
</tr>
<tr>
<td>Pottery</td>
<td>understand the methods used to interpret pottery learn the different attributes of pottery</td>
<td>coil pottery activity</td>
<td>temper</td>
</tr>
<tr>
<td>Content</td>
<td>Performance Standards</td>
<td>Suggested Activities</td>
<td>Teaching Points</td>
</tr>
<tr>
<td>-------------------------</td>
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<td>---------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Big Idea</strong> Students will:</td>
<td>Osteology determine age, sex, disease and nutrition interpret past cultural activities through human remains</td>
<td>taphonomy displays</td>
<td>taphonomy deciduous harris lines enamel hypoplasia stable isotope analysis diaphysis epiphysis</td>
</tr>
<tr>
<td></td>
<td>Relative and Absolute understand the difference between relative &amp; absolute dating learn techniques used by archaeologists to date artifacts and archaeology sites</td>
<td>Photo chronology activity</td>
<td>absolute dating relative dating seriation dendrochronology law of superposition stratigraphy radiocarbon dating K/AR dating thermoluminescence electron spin resonance</td>
</tr>
<tr>
<td></td>
<td>Social Relationships understand how to make correlations between artifacts and cultural activities examine social relationships including economics, politics and religion</td>
<td>Mystery Cemetery Project</td>
<td>Diffusion Ethnography Ethnoarchaeology Enculturated Traditions Patrilinear Matrilinear Egalitarian Complex Society Social Stratification</td>
</tr>
</tbody>
</table>
## Content Performance Standards

<table>
<thead>
<tr>
<th>Big Idea</th>
<th>Students will:</th>
<th>Suggested Activities</th>
<th>Teaching Points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NAGPRA</strong></td>
<td>understand the laws regulating archaeology, discuss &quot;who owns the past&quot;, understand the impact and development of NAGPRA</td>
<td>NAGPRA debate</td>
<td>NAGPRA ethics in archaeology</td>
</tr>
<tr>
<td><strong>Development of Archaeology sites</strong></td>
<td>understand the environmental factors creating archaeology sites, understand the human factors creating archaeology sites</td>
<td></td>
<td>Alluvium, Colluvium, Aeolian, Fluvial, Cache, Primary refuse, Secondary refuse, Site formation process</td>
</tr>
<tr>
<td><strong>Discovery of Archaeology sites</strong></td>
<td>define the technology and methods used to locate archaeology sites</td>
<td>GPS navigation map reading</td>
<td>GPS, GIS, contour map, GPR, significance of literature research, photography</td>
</tr>
<tr>
<td><strong>Excavation of Archaeology sites</strong></td>
<td>learn the proper techniques in excavation, understand how to record and process artifacts found at a site, understand how to interpret features</td>
<td>Site excavation</td>
<td>Spatial association, provenience, datum point</td>
</tr>
</tbody>
</table>

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developed by Shannon Peck-Janssen and taught at Freedom High School in Tampa
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IN-SERVICE TEACHER TRAINING EXAMPLE

Example of Teacher Training Developed by the Northwest Region
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Archaeology in the Classroom
submitted by Mary Furlong, Outreach Coordinator of FPAN’s Northwest Regional Center

Time required: 7 hours
Setting: classroom
Summary: teacher will learn about archaeology and activities to bring into their classrooms

Objectives
To educate teachers about archaeological concepts and local resources in the Northwest Region.

Materials
This section contains written summaries for introductory archaeology and underwater archaeology Power Point presentations (both can be found on the included CD). There is also a timeline for Northwest Florida and six suggested classroom activities.

Background
Ten county public school systems, many private schools, and several home-school organizations are located within the area severed by FPAN’s Northwest Regional Center. This makes having personal interaction between the Northwest Regional staff, currently composed only one full-time employee and three part-time employees, and all the interested students within the region impossible. Therefore we determined the best way to bring archaeology to the maximum amount of students was to instruct their teachers how to teach archaeology in an exciting, educational, and ethical way. These lesson plans were developed and presented to educators from Escambia and Okaloosa counties during a day long workshop. They are designed to provide educators with basic real-world, hands-on archaeological activities that teach students the basic scientific principles and methods of archaeology, how to do historical research in relationship to archaeology, and to understand the preservation and ethical issues relating to archaeology. Because of the interdisciplinary nature of archaeology, these activities help students build skills in language arts, mathematics, science and social studies.

Teacher Tips
Talk about archaeology every day! With the current emphasis on standardized testing it is difficult to dedicate a significant block of time to archaeological activities. However, many of the activities and discussion topics in this section can be incorporated into regular classroom activities throughout the year. For example, include information about the relationship between local archaeological sites and major past events or use materials and artifacts from a specific time period to supplement regular lessons.
### Archaeology in the Classroom
#### Teacher In-service
##### Schedule

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 am</td>
<td>Welcome &amp; Introductions</td>
</tr>
<tr>
<td>8:10 am</td>
<td>&quot;Introduction to Archaeology&quot; &amp; &quot;Introduction to Underwater Archaeology&quot; Power Points</td>
</tr>
<tr>
<td>8:30 am</td>
<td>&quot;Archaeology &amp; History of Northwest Florida&quot; Power Point &amp; Timeline</td>
</tr>
<tr>
<td>9:00 am</td>
<td>Save Our History and Ferry Pass Middle School: A Local Success Story of Bringing Archaeology into the Classroom</td>
</tr>
<tr>
<td>9:10 am</td>
<td>Tour Colonial Archaeological Trail with Activity Book</td>
</tr>
<tr>
<td>10:30 am</td>
<td>Classroom Activity: Site Grid, Mapping &amp; Survey</td>
</tr>
<tr>
<td>11:00 am</td>
<td>Classroom Activity: Site Formation &amp; Stratigraphy</td>
</tr>
<tr>
<td>11:30 am</td>
<td>Lunch &amp; Round Table Discussion</td>
</tr>
<tr>
<td>12:30 pm</td>
<td>Discussion Sources &amp; Local Research</td>
</tr>
<tr>
<td>1:00 pm</td>
<td>Discussion Civic Responsibility</td>
</tr>
<tr>
<td>1:30 pm</td>
<td>Classroom Activity Bag O' Artifacts</td>
</tr>
<tr>
<td>2:00 pm</td>
<td>Classroom Activity Experimental Archaeology</td>
</tr>
<tr>
<td>2:30 pm</td>
<td>Discussion and Evaluation</td>
</tr>
<tr>
<td>3:00 pm</td>
<td>Dismissal &amp; Optional Visit to Field Site</td>
</tr>
</tbody>
</table>
This presentation introduces archaeology on the most basic level, to familiarize students with types, locations, tools, and careers in archaeology. Basic vocabulary and archaeological concepts are also presented.

**Slide 1** Archaeology is one of the four sub-disciplines of Anthropology (the study of all humans and their immediate ancestors). Archaeology is the study of the human past through material remains. Archaeology is NOT paleontology (the study of past animals) or geology (the study of the earth and its formation) although they share similar techniques and concepts.

**Slide 2** Archaeologists work anywhere that people once occupied. The examples in the pictures (going clockwise) show archaeologists working in urban areas (Downtown Pensacola), the woods (Washington County), underwater (Pensacola Bay), the beach (Santa Rosa Island), and inside (UWF Archaeology Lab).

**Slide 3** Archaeologists use a variety of tools for survey, excavation, and recording sites. The examples in the pictures (going clockwise) show archaeologists using a shovel and wheelbarrow, camera and ladder, graph paper, pencils and ruler, screen, trowel, spoon, and dustpan, remote sensing equipment (Conductivity, Ground Penetrating Radar, Gradiometer (Magnetometer), and Resistivity (Not Pictured), and Total Station.

**Slide 4** The archaeological process involves many steps. First a site is located through Survey (Surface Collection, Research, Shovel Testing, Remote Sensing, Historical Documents). Then a site is excavated. The artifacts are then identified and analyzed in a lab and interpretations are made. Finally, archaeologists decipher ways to preserve both the site (if possible) and the information received from it. Most importantly, archaeologists share the information they learned from the site through publications, presentations, museum exhibits, and the media.

**Slide 5** In order to interpret an archaeological site, it is essential to understand stratigraphy and superposition. Stratigraphy is the site's physical structure of geological (soils) or cultural (midden) remains deposited in layers (strata). The Law of Superposition states that in an undisturbed site each layer is younger than the layers below it and older than the ones above it.

**Slide 6** Archaeologists are an important part of our community. They work in both the public and private sectors. One of the most important jobs an archaeologist can have is working for a CRM (Cultural Resource Management) firm. CRM firms primarily perform compliance work required by the government before construction projects.
**Slide 1 – Introduction**

Underwater archaeology often is confused with “treasure hunting” but there are crucial differences:

- Archaeologists are interested in knowledge; treasure hunters are interested in making money.
- Archaeologists record everything they find because each small artifact is a clue to the past; treasure hunters often discard anything that isn’t valuable.
- Archaeologists want to conserve shipwrecks; treasure hunters want to consume shipwrecks.

Images (clockwise from left): painting of a Spanish galleon sinking in a storm; underwater archaeologist carefully measuring a portion of a shipwreck using a ruler and grid system, just like archaeologists on land; archaeologists recording a 19th-century shipwreck on Ponte Vedra Beach (near St Augustine) uncovered by a storm as the public looks on.

**Slide 2 – What is a ship?**

Captain Jack knows what a ship is! It’s not just the parts that make up a ship, it’s what a ship represents, which to him is freedom.

Image: Captain Jack Sparrow from Disney’s *Pirates of the Caribbean: Curse of the Black Pearl*.

**Slide 3 – What is a shipwreck?**

Shipwrecks aren’t just random pieces and parts either -- shipwrecks have certain things, such as ballast and timbers and fasteners and artifacts, but that’s what a shipwreck needs. What a shipwreck represents, what a shipwreck really is, is clues to the human past.

Ships carried many things across the oceans of the world. Not only material things like cargo and goods for trade and sale, but also immaterial things such as disease and war and ideas and culture. Ships linked people, for better or worse.

Images (from top): timbers and ballast of *El Infante*, galleon of the wrecked 1733 Spanish fleet in the Florida Keys; stern of the wreck of *Half Moon*, a German-built racing yacht wrecked off Miami in the 1930s; the steamboat *Calhoun* sunk in the Apalachicola River.

**Slide 4 – “submerged cultural resources”**

Not all archaeological sites underwater are shipwrecks. Other types of sites include:

- intentionally abandoned vessels – “thrown away” when no longer useful
- sites eroding into water – Native American mounds along riverbanks, houses along an eroding beach
- sites built in water – lighthouses, docks and wharves, fish traps
- inundated sites – sites that were on dry land but have become drowned.
Images (top row, from left): abandoned lumber schooners in Blackwater Bay near Milton; wrecked steamer Copenhagen off Pompano Beach; Native American shell midden eroding into the St John's River; (middle row, from left): the remains of the Roman harbor of Cacsarca Maritima on the coast of Israel; the city of Port Royal, Jamaica, that sank into the sea in an earthquake in 1692; a steamship wrecked in the Apalachicola River that was covered by river sediment but is now eroding; (bottom row, from left): a lighthouse built on the reef in the Florida Keys; a fish trap, or weir, built in a lake; an 8,000-year-old Native American burial in a lake at Windover near Titusville; modern trash dumped in the sea - a future archaeological site.

Slide 5 - What makes shipwrecks important archaeologically?
Shipwrecks can be considered “time capsules” — everything found on a wreck was in use at one place and at one time. They are “microcosms” of the culture that built, sailed, and wrecked on the ship. Unlike many land sites, shipwrecks are self-contained and generally don’t have layers of occupation, providing what archaeologists call a “closed context,” meaning the context is not mixed up with other time periods. Artifacts, even fragile organic things like rope and leather and animal bones, are usually extremely well preserved.

Images (clockwise from left): tiny artifacts from the Santa Rosa Island Wreck in Pensacola Bay, including seeds, a die, rat bones, and bits of ceramic; an exhibit of artifacts from the 16th-century Spanish Emanuel Point Shipwreck of Tristan de Luna in Pensacola Bay, housed at the Archaeology Institute at UWF; a nearly complete rat skeleton from the Emanuel Point Shipwreck, the earliest evidence of the black rat in North America; artifacts from Port Royal include eating utensils, pipes, a rat skull, and pieces of buttons and buckles from clothes.

Slide 6 - How do you do archaeology underwater?
Just like on land! Instead of using jeeps and trucks to get to their sites, underwater archaeologists use boats and SCUBA gear. Excavation methods are the same, and everything is carefully uncovered and recorded. Instead of using shovels and trowels, underwater archaeologists use dredges and air-lifts. Sites are excavated using grids for taking careful measurements and everything found is recorded using photos and video and drawn notes.

Images (clockwise from left): an underwater archaeologist measures the extent of a ballast mound in the Keys; an underwater archaeologist on the Emanuel Point Shipwreck uses a dredge to carefully uncover the timbers of the shipwreck; careful measurements are taken to record the position of each artifact, so the site can be “re-created” on paper; the other end of a dredge — artifacts are caught in a screen on the surface so even the tiniest items are collected.
Northwest Florida Archaeology and History Timeline

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>10,000 BC</td>
<td><strong>PaleoIndian Culture</strong>- First people arrive in Florida</td>
</tr>
<tr>
<td>8,000 BC</td>
<td><strong>Archaic Culture (Havshaw, Pensacola)</strong>- First permanent settlements</td>
</tr>
<tr>
<td>1000 BC</td>
<td><strong>Woodland Culture (Bernath, Santa Rosa County)</strong>- First farmers</td>
</tr>
<tr>
<td>900 AD</td>
<td><strong>Mississippian Culture (Temple Mound, Ft. Walton Beach)</strong> Lived in chiefdoms and built mounds</td>
</tr>
<tr>
<td>1539-1542</td>
<td><strong>Hernando De Soto</strong> lands in Florida, travels through the southeast</td>
</tr>
<tr>
<td>1559</td>
<td><strong>Tristan de Luna y Arellano (Emanuel Point Shipwreck, Pensacola Bay)</strong> attempts Florida’s first permanent European settlement in Pensacola</td>
</tr>
<tr>
<td>1656-1704</td>
<td><strong>Mission San Luis (Mission San Luis, Tallahassee)</strong> established by the Spanish as part of their mission system throughout Florida</td>
</tr>
<tr>
<td>1698-1719</td>
<td><strong>Spanish (Presidio Santa María de Galve, NAS Pensacola)</strong> establish the permanent settlement in Pensacola</td>
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<tr>
<td>1710-1722</td>
<td><strong>French</strong> occupy Pensacola</td>
</tr>
<tr>
<td>1722-1752</td>
<td><strong>Spanish (Presidio la Isla Santa Rosa, Pensacola Beach)</strong> reoccupy Pensacola</td>
</tr>
<tr>
<td>1752-1763</td>
<td><strong>Spanish (Presidio San Miguel, Pensacola)</strong> relocate their settlement to present day downtown Pensacola</td>
</tr>
<tr>
<td>1763-1783</td>
<td><strong>British (Fort of Pensacola, Pensacola)</strong> occupy both East and West Florida</td>
</tr>
<tr>
<td>1783-1821</td>
<td><strong>Spanish</strong> reoccupy Florida</td>
</tr>
<tr>
<td>1821</td>
<td><strong>Adams-Onis Treaty</strong> officially transfers Florida to the United States</td>
</tr>
<tr>
<td>1838</td>
<td><strong>Arcadia Railroad Company (Arcadia Mill Site, Milton)</strong> chartered and constructed Florida’s second oldest railway</td>
</tr>
<tr>
<td>1861</td>
<td><strong>Fort Pickens (Fort Pickens, Pensacola Beach)</strong> attacked by Confederate soldiers during the Civil War</td>
</tr>
</tbody>
</table>
Site Grid, Mapping, & Survey
Establishing a grid is essential for any archaeological excavation. The grid helps the archaeologist maintain the context or provenience of everything recovered from the site. To do this activity, salt your “site” with artifacts and features before laying out the grid. Students will need measuring tapes, rulers, calculators, graph paper/pencils, and rebar/stakes/pin flags.

- (SS & M) Discuss the importance of context & recording. Explain how grids are used by archaeologists to keep track of and understand context. Use the Pythagorean Theorem to lay out a grid across the “site.” Discuss how this grid can be tied into GPS coordinates and other near-by sites.

- (SS & M) Have students draw scale maps of units within the grid. Make sure they measure in exact dimensions and locations of artifacts or features. Discuss what extra information can be learned by knowing the exact location of the artifact/feature rather than just its presence/absence.

- (SS & M) Discuss different sampling techniques & how archaeologists use these techniques to locate sites and establish their size. Allow students to surface collect the salted artifacts through a systematic survey. Is this sample bias? What was excluded/included?

- (SS & M) Discuss predictive models for site location. Why would people pick one location over another (nearness to resources, seasonal movements, transportation, etc.)? How does the environment and climate affect these choices? How do economics and politics affect these choices?
**Bag O’ Artifacts**

A simple bag of artifacts (perhaps what was used on your “site”) can tell an archaeologist a lot about a site and the people who lived there. For these activities use replicas, collections, or junk to make the bags.

- (SS & S) Discuss what survives in the archaeological record. Why are some items thrown away while others become heirlooms? What types of items do/do not survive in the archaeological record? How does the environment affect preservation (underwater, acid, bog, etc.)? How does this bias our knowledge of the past?

- (SS & M) Sort artifacts into different categories (time, type, etc.) Discuss the chronology of the artifacts and the time period each represents. Use this information as well as other observations (color, material, manufacture technique, technology, etc.) to do basic statistic analysis. Make charts and graphs to show results. What kinds of questions can these statistics answer? How can the results be manipulated (Ex. Adding/removing particular artifacts)?

- (SS & LA) Conduct classroom discussions or have students write interpretations about the artifacts included in the bag. Encourage students to describe the time period, ethnic group, gender, age, economic status, trade, occupation, etc. of the people who may have owned these items. Apply knowledge of history to make these interpretations.

  - Example: A bag of artifacts may include Native American ceramics, lead shot, deer & pig bone, glass beads, burnt corn cobs, and a glass projectile point. These artifacts indicate Native American presence after European contact. How do these artifacts show the blending of European and Native American cultures?
Site Formation & Stratigraphy
Understanding how a site is created is essential for gaining information from the archaeological record. In addition, stratigraphy is an essential tool in relative dating. Supplies for these activities include an old fish tank, different types of soils, and artifacts.

- (SS & S) Discuss the natural and man-made causes of site formation & destruction (erosion, deposition, storms, water, development, plowing, etc.).

- (SS, S, & M) Use different soil types to create stratigraphic layers in the fish tank. Include artifacts & features. Explain the Law of Superposition and how stratigraphy is used to date sites and artifacts. Make scaled profile maps of the stratigraphy.

- (SS & M) Use volume calculations to determine how much soil is in an excavated unit (or fish tank). Use ratios to compare the amount of soil and artifacts excavated from different units, sites, or tanks.
Local Historical & Archaeological Research

Historical documents and other sources are often quite helpful in understanding the archaeological record. For these activities pencil, paper/notebook, and a tape recorder are needed.

- (SS & LA) Conduct an interview with a local informant. How do their accounts contribute to the archaeological record? (Ex. witnessed a boat sink, building get destroyed, etc.)

- (SS & LA) Use primary historical documents including maps, photographs, letters, inventories, etc. to learn about the past. Consider the perspective of the document's author. Is it more/less biased than the archaeological record? What are the similarities/differences between the historical & archaeological records? (Consider women, children, illegal activities, poor, different ethnic groups, etc.) Allow students to present their findings.

- (SS) Create a time line of local history and archaeology and one of national/world history and archaeology. Use these timelines to understand how events occurring locally were affected by what was occurring in other parts of the country/world.

- (SS & LA) Visit a local cemetery, such as St. Michael’s Cemetery, and research the lives of individuals located there. How can connections be made between these individuals and the rest of the community? Trace the life of one or more of these individuals/families (ex. Moreno, Bonifay, etc.) through the archaeological record (residence, workplace, final resting place).
Bring the Past to Life through Experimental Archaeology

Like all scientists, archaeologists conduct experiments to test their hypotheses about the past. Experimental archaeology often provides a better understanding of how artifacts and sites were created. For these activities a variety of materials is needed, including garbage, modeling clay, terracotta pots, and glue.

- **(SS & S)** Discuss how archaeologists use the scientific method. How are hypotheses tested? Allow students to develop their own hypotheses, explain how they could be tested, and what conclusions could be drawn. For example: a student may hypothesize that archaeological sites are usually located near river. This hypothesis could be tested by surveying areas both near and far from rivers and then comparing the results. The conclusions could be used to make a predictive model for site locations.

- **(SS & S)** Incorporated with discussions of ecology and environmental issues, discuss methods of waste disposal such as recycling, reusing, landfills, burning, and littering. How are these different methods used archaeologically?
  - Read about William Rathje’s (University of Arizona) studies in “garbology.” Use his methods to conduct your own experiment. For example, conduct interviews with students in another class about their waste habits. Have students ask questions about what types and amounts of waste their fellow students usually dispose of during the week. Save the waste of the interviewed class. At the end of the week, allow the students to go through the trash. How does the garbage match up to the interviews?

- **(SS & S)** Have students research different types of local Native American or historic ceramics. Discuss how temporal, geographical, and cultural differences can be seen in variations of decorations, vessel form, manufacture, and material.
  - Allow students to make replica pots by coiling clay and using different methods of decoration (e.g., stamped, brushed, incised, burnished).
  - Have students use paint or markers to decorate terracotta flower pots based on their ceramic research. Break the decorated pots and remove three pieces. Have the students reconstruct the pots using glue without the missing pieces. What information is missing? What can be learned from the remaining few pieces?
Archaeology & Civic Responsibility

Archaeologists are responsible to the communities they live and work in, as well as to future knowledge. The government and its citizens play an important role in protecting archaeological and historical resources.

- (SS) Discuss the need for archaeological and historic preservation. How can students get personally involved in protecting their communities’ resources? Discuss contacting government officials about preservation programs.

- (SS) Discuss federal/state laws that protect archaeological resources. How have these laws affected the economies of archaeology and development?

- (SS & LA) Discuss how archaeologists tell the public about their findings and what the students feel is the best method. Examine different outreach efforts such as reports, books, TV/radio, exhibits, magazines/newspapers. Watch episodes of TV shows such as “Digging for the Truth” or “Deep Sea Detectives.” Discuss the differences between “good” archaeological information and sensationalization.

- (SS & S) A lot of “pseudoscience” gets reported by the media, such as the “new sighting of the Loch Ness Monster” reported by CNN and other news sources http://www.cnn.com/2007/WORLD/europe/05/31/britain.lochness.ap/index.html. Have students research various topics in pseudoscience (Loch Ness Monster, Bigfoot/Yeti, Piltdown Man, aliens building Stonehenge/Pyramids, Atlantis, etc) and discuss their findings based on critical thinking. What makes science real? What sorts of “proof” do proponents of pseudoscience use? Why are these kinds of topics fascinating? Why do the media report pseudoscience topics?
Resources

Activity Guides and Curricula
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Downloadable Activity Guides and Curricula

1. Coquina Queries
Learn all about coquina through downloadable lesson plans and a hands-on kit
developed through a grant for the Northeast Regional Center of FPAN in St. Augustine.
(http://www.fpannortheast.org/coquinaqueries)

2. Archaeology in the Classroom By Teachers for Teachers
Articles about teaching archaeology and activity guide published as an issue of Early Georgia by the Society for Georgia Archaeology
(http://www.thesga.org/Early%20Georgia%20Volume%2020%20Volume%2020%201.pdf)

3. Classroom Archaeology
Created by Nancy Hawkins for the Department of Archaeology in Louisiana and available through the Department of Education, Education Resources Information Center
(http://eric.ed.gov/ERICWebPortal/custom/portlets/recordDetails/detailmini.jsp?_nfpb=true&_&ERICExtSearch_SearchValue_0=ED393721&ERICExtSearch_SearchType_0=eric_accno&accno=ED393721)

4. Expeditions into Ohio’s Past: Teacher’s Guide
Compiled for Hopewell Culture Natural Historic Park, this curriculum is suggested for grades 3 – 5
(http://www.nps.gov/hocu/forteachers/curriculummaterials.htm)

5. Poverty Point Expeditions
Developed by Debbie Buco for elementary and middle school students to learn about Poverty Point State Commemorative Area, available through the Louisiana Division of Archaeology
(http://www.crt.state.la.us/archaeology/homepage/activity_booklets.shtml)

6. Rock River Valley: Pathway to the Past
Vermont Gas developed this educator's guide Franklin County 5th to 8th graders
(http://www.vermontgas.com/about/educators_guide.html)

7. SAA’s Archaeology and Public Education Newsletter’s Education Station Activities
Lesson plans developed by Society for American Archaeology (SAA) members and published in the Public Education Newsletter (also available in pdf form)
(http://www.saa.org/Public/resources/SAAlessons.html)
8. Teaching Tools: Georgia Prehistoric Archaeology Teacher Resource Kit
Funded through the Georgia Department of Transportation, this guide and handout
teach the fundamentals of archaeology and Georgia prehistory
guide (http://www.bartowdig.com/teacher_guide.pdf) and
handouts (http://www.bartowdig.com/student_handouts.pdf)

9. Texas Archeology in the Classroom: A Unit for Teachers
A Texas Archeology Awareness Month Publication split into three sections:
introductory material, activities, and resources
(http://www.thc.state.tx.us/archeology/aaresource.shtml)

Published Activity Guides and Curricula

1. Digging and Discovery: Wisconsin Archaeology
   Designed grades 4-8, this program has a teacher’s guide with student materials and a

2. Frontiers in the Soil: The Archaeology of Georgia
   This book and teacher’s guide was updated by The Society for Georgia Archaeology

3. Intrigue of the Past: A Teacher’s Activity Guide for 4th through 7th grades
   This book is part of Project Archaeology (projectarchaeology.org) and an adapted
   version can be found online for North Carolina (rla.unc.edu/lessons).

4. Jump Back in Time: A Living History Resource
   Carol Peterson immerses students in four time periods – Pioneer, Colonial America,
   Native American Culture, and Ancient Cultures – by developing 14-18 stations of
Suggested Books
Suggested Books - by age (☉ denotes a Florida-specific resource)

**Elementary School**

Bordessa, Kris

Bruchac, Joseph with Michael J. Caduto

Casanova, Mary

Copeland, Peter F.

Costabel, Eva Deutsch ☉

Duke, Kate

Erickson, John R.

Guiberson, Brenda Z.

Hobbs, Will

Jumper, Betty Mae ☉
<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
<th>Publisher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle School</td>
<td></td>
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<tr>
<td></td>
<td>(teacher guide available upon request <a href="mailto:LynneHansen1@aol.com">LynneHansen1@aol.com</a>)</td>
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</tbody>
</table>
Macaulay, David

Tritton, Roger, et al.

White, John R.

High school/ Adult

Bense, Judith A.

Brown, Robin C.

Deetz, James

Daniels, Steve and Nicolas David.

David, Nicolas and Jonathan Driver

Delgado, James P.

Feder, Kenneth L.

Hansen, Lynne
Loubser, Johannes H.N.
2003 Archaeology: The Comic. AltaMira Press. Walnut Creek, CA.

Milanich, Jerald T.

Parker, Mari Pritchard and Elvio Angeloni

Salzman, Philip Carl and Patricia Rice

Stone, Peter and Robert MacKenzie, eds.

Thomas, David Hurst and Robert L. Kelly

Wescott, David Ed.
2001b Primitive Technology II. Salt Lake City: Gibbs-Smith Publisher.

Willey, Gordon R.

White, Nancy Marie
Suggested Magazines
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Suggested Magazines

*American Archaeology* by The Archaeological Conservancy
www.americanarchaeology.com/aamagazine.html

*Archaeology*, Archaeological Institute of America
www.archaeology.org

*Calliope*, Cobblestone Publishing for grades 5-10
www.cobblestonepub.com/magazine/CAL/

*Cobblestone*, Cobblestone Publishing for grades 4-9
www.cobblestonepub.com/magazine/COB

*Dig*, Cobblestone Publishing for grades 4-9
www.cobblestonepub.com/magazine/DIG

*Faces*, Cobblestone Publishing, grades 4-9
www.cobblestonepub.com/magazine/FAC

*Past Horizons*, online magazine
www.pasthorizons.com/magazine
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Suggested Internet Sites
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Suggested Internet Sites (❖ denotes a Florida-specific resource)

Government

Federal
National Park Service
(http://www.cr.nps.gov/archeology/PUBLIC/teach.htm)
This resource goes in depth to explain archaeology and archaeological methods in plain English, lists parks to visit, links to other educational programs especially the Southeast Archaeological Center, and has lesson plans. There is also a section called Teaching with Historic Places (http://www.cr.nps.gov/nr/twhp).

The War of the Rebellion: a Compilation of the Official Records of the Union and Confederate Armies
(http://cdl.library.cornell.edu/moa/browse.monographs/waro.html)
Primary documentation (reports and correspondence) from the Civil War, searchable by year and state.

State
Florida Public Archaeology Network (FPAN) ❖
(http://www.flpublicarchaeology.org)
Find out about how FPAN was created from the Coordinating Center or click on the map of Florida to learn about the individual centers and their regions.

Florida’s Division of Historic Resources ❖
(http://www.flheritage.com)
This link provides information on Florida’s history and how it is being remembered and preserved. There are several links to very cool archaeological projects, and information on Archaeology Month events around the state. The Museum in the Sea web site (http://www.museumsinthesea.com) has information and video of the ships in the Florida Underwater Archaeological Preserve System.

Florida Memory Project ❖
(http://www.floridamemory.com)
This link has archive photos, audio, and lesson plans on periods in Florida history.

Arkansas Archeological Survey
(http://www.uark.edu/campus-resources/archinfo/resources.html)
One of the models used to form the Florida Public Archaeology Network, this site offers education resources such as downloadable teacher resources and handouts – much of which is easily adaptable to teach Florida’s past. Several handouts relate to archaeological concepts.

Louisiana Division of Archaeology
(http://www.crt.state.la.us/archaeology/homepage/activity_booklets.shtml)
You will find downloadable lesson plans, activities, and overheads on this website. You can order publications from the Louisiana Division of Archaeology that they will mail you for free.
Archaeological Societies

**Florida Anthropological Society** *(http://www.fasweb.org)*
The Florida Anthropological Society is a very active community of professionals, advocationals, and interested people who share a passion for Florida’s past. They hold an annual meeting in May and publish *The Florida Anthropologist*, which is included with membership – the best way to keep up with what research is happening in Florida.

**Archaeological Institute of America (AIA)** *(http://www.archaeological.org/webinfo.php?page=10260)*
The Education Division of AIA was formed in 2004 and will provide resources, lesson plans, and commentaries on popular movies relevant to archaeology. We are especially fond of the Mystery Cemetery Project *(http://www.archaeological.org/webinfo.php?page=10282)*.

**Society for American Archaeology (SAA)** *(http://www.saa.org/public/home/home.html)*
It is extremely well done, and has tons of information for students, educators, and archaeologists – from single activities to entire events like *ArchaeologyLand!* They also have a newsletter entitled *Archaeology and Public Education*, back issues are in pdf format for downloading (most of this list’s resource information is from this publication, although some of the information was outdated – still the articles and lesson plans were helpful).

**Society for Georgia Archaeology** *(http://www.thesga.org)*
Even though this is not a Florida-based organization, we share a lot of commonalities regarding the archaeological record. They have two publications of particular interest – *Used Archaeology* and *Frontiers in the Soil*. They also have a link on their homepage to purchase a copy of *Frontiers in the Soil*, a book and teacher’s guide for use in a classroom setting ($24 for both). Along with detailed information and cartoon illustrations, it also provides activities that reinforce archaeological concepts.

Educational Programs

**Coquina Queries** *(http://www.fpannortheast.org/coquinaqueries)*
Learn all about coquina through downloadable lesson plans and a hands-on kit developed through a grant for the Northeast Regional Center of FPAN in St. Augustine.

**Florida Then & Now** *(http://www.fcit.usf.edu/florida/lessons/lessons.htm)*
Produced by the Florida Center for Instructional Technology, College of Education, University of South Florida this web site has lesson plans geared to teach elementary students about Florida history, sites, and people. There are many links to primary documents as well.
Athena Review
(http://www.athenapub.com)
Journal of archaeology, history, and exploration geared toward both professional and student audiences. They have full versions of back issues online and free.

Anthropology in the News
(http://anthropology.tamu.edu/news.htm)
Texas A&M’s Department of Anthropology keeps a web page that has links to current stories involving anthropology or archaeology. These links lead to full version articles available online, however some of the sites do ask the user to register.

Architecture in Education
(http://www.aiaphila.org/aie)
Classroom activities to teach students about the built environment can be found here.

ArchNet
(http://archnet.asu.edu)
ArchNet is a virtual library of archaeological information. Searches can be done by subject or region.

El Camino lesson plans from the SRI Foundation
(http://www.srifoundation.org/library.html)
The Grand Adventure is a downloadable program that teaches about New Mexico from Spanish exploration to present. They are available in English or Spanish.

Legacy at the Center for Archaeological Research, San Antonio, Texas
(http://car.utsa.edu/Legacy/Legacy_home_version2.htm)
This site has vocabulary and activities listed by grade level. It also speaks to the curriculum requirements met by lesson plans for the state of Texas.

PBS.com
(http://www.pbs.org/teachersource)
This website has over 3,000 lesson plans as well as video clips for all ages and grades.

SAFE – Saving Antiquities for Everyone
(http://www.savingantiquities.org/index.php)
Saving Antiquities for Everyone is a non-profit organization dedicated to preserving cultural heritage worldwide.

Teaching With Documents
(http://www.archives.gov/education/lessons)
This site from the National Archives has lesson plans that focus on collecting information from primary sources.
Museums

Florida Museum of Natural History (http://www.flmnh.ufl.edu)
Located in Gainesville, this museum has permanent exhibits on fossils, prehistoric peoples, and butterflies to name a few. It also has traveling exhibits and exhibits online. Be sure to check out the Inquiry Boxes (http://www.flmnh.ufl.edu/education/inquiry_boxes.htm) even if you are not able to rent the boxes, the lesson plans are downloadable!

Historic Pensacola Village & T.T. Wentworth, Jr. – Florida State Museum (http://www.historicpensacola.org)
These properties are managed by West Florida Historic Preservation Incorporated, a non-profit institution, community service and direct support organization of the University of West Florida. Historic Pensacola Village consists of twenty properties in the Pensacola National Register Historic District. Ten of these properties are interpreted facilities that are open to the public.

Mission San Luis (http://www.missionsanluis.org)
Mission San Luis is a reconstructed Spanish mission which depicts the Apalachee and Spanish missionary community of the 1500s. Their website has teacher resource information as well as a plethora of artifact pictures.

Museum of Florida History (http://www.flheritage.com/museum)
Located in Tallahassee, this museum hosts exhibits like the Seminole People of Florida: Survival and Success which will open in mid-November and run through May 2008. They also have educational programs on their website.

Museum of London (http://www.museumoflondon.org.uk/English/Learning/Learningonline/default.htm)
Museum of London has online resources such as games, activities, and curriculum for teachers.

Smithsonian Education (http://smithsonianeducation.org/educators/lesson_plans/decoding_the_past/index.html)
Decoding the Past has lesson plans and activities to teach students from 3rd – 8th grade about the work of archaeologists. There are also many other subjects such as history, technology, and our voting system – all with well planned out lessons and activities.

Southeast Missouri Regional Museum (http://www5.semo.edu/museum/education/NatAmlessons/mainpageNatAm.html)
This website has many great ideas for classroom activities divided by cultural periods. The lesson on Pottery-making Methods under the Woodland period is particulariy recommended.
Resources

Archaeology Education Resources
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Archaeology Education Resources

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