Every Student Initiative Field Trip: Sixth Grade

Included in this Packet:

PEORIA
RIVERFRONT MUSEUM

The Every Student Initiative (ESI) aims to bring every student in the Central Illinois area to the Peoria Riverfront Museum every year. To help us achieve this goal, Polly Barton, the wife of former Caterpillar CEO Glen Barton, made a substantial contribution specifically to help bring the Peoria Public Schools Kindergarten through 8th grade students to the Peoria Riverfront Museum. Since the museum is an educational organization whose goal is to inspire lifelong learning, matching the Peoria Public Schools' curriculum to support their educational goals is very important. Through visits to specific exhibits, planetarium shows, and Giant Screen Theater educational films, the Peoria Riverfront Museum hopes to inspire students to further develop their knowledge of topics outlined in the curriculum per their grade level.

INCLUDED IN YOUR E.S.I. FIELDTRIP:

- Transportation to and from your school
- Pre-Visit Video
- Brief staff welcome and orientation upon arrival at the museum
- 3 hour visit to the museum's galleries, and either the DOME Planetarium or the Giant Screen Theater as best pertains to your specific curriculum
- Pre & post visit materials for teacher use
- Pre, during, and post visit student activities customized for your trip

Greetings,

We are very much looking forward to your visit to the Riverfront Museum! To ensure the best possible experience for your group, please review the following information prior to your visit.

Since your class will be joining us for an Every Student Initiative field trip, your educator's guides, and pre/post visit activities are all included in this packet, and can also be found on the PSD150 website. If you have questions about any of the information seen here, please contact us and we will happily assist you.

Arrival/Check-In:

- Please **confirm your final numbers** (students & chaperones) with Holly Johnson **5 days prior** to your visit.
- Do your best to **ARRIVE ON TIME**! Tours are carefully scheduled, and arriving on time makes the day go easier for both you and your students.
    - "On Time" is defined as arriving **5-10 minutes before your first scheduled program** to allow for transition time (e.g.: check-in, bathroom breaks, etc.)
- Upon arrival, one leader should check in at the front desk to report the final tally of students and adults and to pay for the field trip. It is important that you know your total numbers before coming to the front desk. This will ensure your group starts promptly at your designated time.
- Rolling bins will be provided to your group upon arrival to store items like sack lunches and/or coats. We cannot provide cooling or heating services for lunches.
- A museum host/educator will greet the group in the lobby and give a brief orientation

Bus Loading/Unloading Zones:

- Buses can load and unload at the front entrance of the museum at 222 SW Washington Street. There is a drop-off lane directly in front of the museum.
- There is no on-site bus parking; buses can park under the Bob Michel Bridge.
    - A bus driver map is available online, or at the front desk.

Group Orientation:

- Upon your arrival at the museum, a staff member will briefly explain the museum rules, review your group's specific schedule, and provide chaperones with maps, activity sheets, and gallery guides as needed.

Chaperone Policy:

- Peoria Riverfront Museum recommends one chaperone for every five students; all attending adults are considered a chaperone.
- Chaperones arriving separately can park in the museum parking deck for free.
- All chaperones should be made aware of the tour's itinerary.
    - Chaperone guides are available on the museum's website; please make use of these.

Museum Rules:

Our goal is to provide a successful learning environment for all students. **You can help to create that environment by clarifying our behavioral expectations with your students both before you arrive *AND* by helping us enforce those expectations during your visit.** During your group orientation, a staff member will remind your students of the following rules:

- Walk in the museum. No running.
- Use indoor voices.
- Many of our exhibits are "hands-on," but some are not. We'll help your students to know the difference.
- No food, drink, candy or gum in the galleries.
- Respect others in your group as well as other museum visitors and staff.
- Teachers and chaperones must stay with their groups at all times.
- Photography is permitted in some galleries. Please ask your host for details.

Sixth Grade Field Trip, Element 1: Science—The Dynamic Earth: Earth's Surface & History

TEACHER GUIDE TO ILLINOIS RIVER ENCOUNTER

ILLINOIS RIVER ENCUNTER

Learn the story of the Illinois River in this unique gallery. As you enter, you'll see a 400-gallon aquarium containing native fish species from the Illinois River. In the main exhibit, along one side, learn about the natural history of the river from the time of the Kankakee Torrent more than 14,000 years ago until the present. The opposite side tells the story of how humans have harnessed and changed the river.

Topics & Interactives found in the Gallery:

- Origins of the River: Information about the Kankakee Torrent and the native peoples who lived along the Illinois River
- River Ecosystems: Three dioramas show native plants and animals
- Fishing: Learn about native and invasive species, the shell-button industry, and commercial fishing
- Hunting and Trapping: See a "River Rat" cabin, a duck blind, and learn the history of hunting along on the river
- Tomorrow's River: Learn about groups working to improve the river environment, view a live feed to the Emiquon National Wildlife Refuge
- The River as Highway: Columbia riverboat disaster, barge experience, pristine river model
- Canals and Locks: navigating the Illinois River canal, wicket dam interactive, lock interactives

PRE-VISIT ACTIVITY: Teacher Guide

Erosion in Action

Pre-Visit Activity Objective:

After completing this activity, students will better understand how moving water can cause erosion and change the Earth's surface.

To begin the activity, share the following information with your students:

During our field trip to the Peoria Riverfront Museum, we will explore the galleries and watch a movie called *Mysteries of China.* We will spend most of our gallery time in the *Illinois River Encounter* room. In that room, we will explore exhibits about the people, animals, and industry related to the Illinois River. In particular, we will focus on the creation of the Illinois River Valley by watching a short film on the Kankakee Torrent and spending time using the museum's Stream Table. To prepare us for that visit, we will be creating our own mini-stream tables in class today to see how moving water impacts the Earth's surface.

Information to share with your students:

About the Kankakee Torrent:

The Kankakee Torrent was a catastrophic flood that occurred between 14,000 and 18,000 years ago in the Midwestern United States. It resulted from a breach of a large glacial lake formed by the melting of the Wisconsin Glacier. The landscape south of Chicago still shows the effects of the torrent, particularly at Kankakee River State Park and on the Illinois River at Starved Rock State Park.

The Kankakee Torrent was responsible for the rapid creation of several floating callbacks leading to geological features of Illinois. Both the Kankakee River and Illinois River largely follow paths carved out by the torrent, a process that is believed to have taken only days. Most notable today is a region in north-central Illinois known as Starved Rock; while most of Illinois is located on a low-lying plain with little variation in elevation, Starved Rock State Park features several canyons which were created in the Kankakee Torrent. Another, very different, geologic effect left over from the Kankakee Torrent is the existence of "sand prairies". Sand prairies exist along the Mississippi, Illinois, Green and Kankakee rivers and along Lake Michigan, where the massive flood waters stopped their movement and deposited large quantities of sand.

The Kankakee River also bears several features directly resultant from the catastrophic Torrent, and Kankakee River State Park encompasses all the features that evolved as a result of the catastrophic flood event. Along much of its course, tributaries entering the Kankakee enter over waterfalls, a phenomenon known as "hanging tributaries". This is because the Torrent carved the Kankakee far deeper than would normal river erosion, and the erosion of the slow-moving tributaries into the bedrock has never caught up. This effect is most evident where Rock Creek joins the Kankakee. The Illinois State Geological Survey reports that Rock Creek's cutting through the bedrock (dolomites of the Joliet Formation) to the waterfall point, upstream of its confluence with the Kankakee River, is progressing at the rate of 3 inches per year.

The effects of the Kankakee torrent were not limited to northeast Illinois. The Ohio and Mississippi Rivers appear to have had their courses altered by the Kankakee Torrent, with the Ohio being pushed further south and the Mississippi further west.

PRE-VISIT ACTIVITY: Teacher Guide

Erosion in Action

About Weathering, Erosion, and Deposition:

Weathering is where rocks and minerals are broken down into smaller and smaller pieces. Extreme heat and cold, water, and ice can all cause weathering. Water wears away rocks, and can dissolve them. When water seeps into cracks on a rock, it freezes, and gets bigger, causing the rock to push out.

Erosion is simply the transportation of weathered, or broken down, materials. Wind and water can erode, and so can movements from the earth. Water can carry the broken down rocks, and so can wind. A landslide is when lots of materials are carried down a steep hill by gravity. A mudslide is when water makes the side of a hill heavy, and carries it downward. Slumps are when a large amount of rock or dirt, or other sediments, fall. All the material in a slump always comes down at once, where a landslide can have many rocks tumbling down at different times. When the earth moves slowly, it's called a creep.

Deposition is when sediment, and broken down substances are deposited, or laid down somewhere. This can happen in a river when the water slows and creates a new bank, or delta. When wind slows down it can also drop sediment.

More information:

Kankakee Torrent: http://www.sciencedirect.com/science/article/pii/S0277379114000493

https://en.wikipedia.org/wiki/Kankakee_Torrent

http://academic.emporia.edu/aberjame/student/decinque1/kankeejd.html

Sand Prairies: https://www.dnr.illinois.gov/education/Pages/CDHabitatSandPrairie.aspx

Weathering, Erosion & Deposition : https://www.youtube.com/watch?v=R-Iak3Wvh9c

https://www.teacherspayteachers.com/Product/Weathering-and-Erosion-Experiment-Freebie-2438565

https://quizlet.com/1988263/weathering-erosion-and-deposition-flash-cards/

Alternate Activity:

Have your students make posters on 12x18 construction paper detailing the differences between weathering, erosion, and deposition using words and images.

Example poster: https://i.pinimg.com/originals/e1/9d/49/e19d49cbc297eea09fb589a7d2c2dc9e.jpg

PRE-VISIT ACTIVITY: **Teacher Guide**

Erosion in Action

Begin the activity:

Today, we are going to create our own mini-Stream Tables, which will demonstrate the impact that moving water has on the Earth's surface. Our activity today will be messy, because we will be working with sand and water. Please do your best to keep the sand and water where they are supposed to be and no where else. Students who are not capable of doing this will be asked not to participate.

Our moving water today will mimic the impact of a river like the Illinois River which runs through Peoria. Observe your "river" carefully, and consider how a larger source of water, like that of the Kankakee Torrent may impact the Earth's surface differently.

Supplies:

- Disposable aluminum cake pans, ($1-$2 each at Walmart), 1 per group
- Play sand, 2-3 inches deep in each cake pan (approx. $3 for 50lbs of sand at a hardware store)
- Wooden or plastic rulers, 1 per group
- Tape (packing tape or masking tape works best, but scotch tape would work too), 4-6 pieces per group
- Styrofoam cups (9 or 12 oz), 1 per group
- Plastic water bottle filled with water, 1 per group
- A book (1-2 inches thick) 1 per group
- Sharpened pencil, 1 per group
- Observation worksheets and writing utensil, 1 per student

Instructions:

1. Break students into groups of 5 (approximate number). Provide each group with an aluminum cake pan pre-filled with 2-3 inches of play sand.
2. Have students observe the sand then work together to create a "river-scape." They may choose to create hills, valleys, volcanoes, plains, a pre-determined path for their river, or other elements they could find on the earth's surface. Observations should be recorded on their worksheets.
3. Once their landscape is complete and observations recorded, instruct students to tape the ruler across the top of their cake pan. The ruler should be at the end of the pan that represents the mouth or source of their river.
4. Instruct students to use the sharpened pencil to make a hole at the bottom of their Styrofoam cup. The hole should not be directly in the center of the cup. Once the hole has been made, they should secure the cup to the ruler so that the hole will allow water to drip onto the sand below.
5. When ready, students should prop up the "source" side of their pan with the book, then fill their Styrofoam cups with water and watch as the water flows onto their sand "river-scape" below. Have students record their observations on their worksheet.

Original Experiment: http://learninglabresources.com/2014/01/erosion-and-landforms-science-activity-with-a-freebie.html

Erosion in Action

Conclude the activity:

Allow the groups to share their observations and results with the class. You can ask questions to begin the discussion: What geologic features did you have along your "river-scape" before you added moving water? What did you hypothesize would happen to those geologic featuers once your river started flowing? What did happen once your river started flowing?

Once the groups have shared their observations and results, open up a class discussion by asking students what they think would have happened to their river-scapes if a larger source of water, like the Kankakee Torrent, had been added.

The weathering, erosion, and deposition that we mimicked in our project today are natural effects of the hydrosphere or the water cycle on the geosphere, or the earth's surface. What are some ways that humans cause unnatural weathering, erosion, and deposition? (Farming, building, dredging the river, rerouting rivers, mining.) Are all of these things bad? (Not always) How can weathering, erosion, and deposition be harmful to the environment? (When combined with pollution or when done without considering the consequences to animal and plant populations.)

During our visit to the Peoria Riverfront Museum, we will get to spend time learning more about the Kankakee Torrent that formed the landscape in which we live, and working with the museum's Stream Table, which will give us an even clearer picture of how moving water can impact Earth's surface.

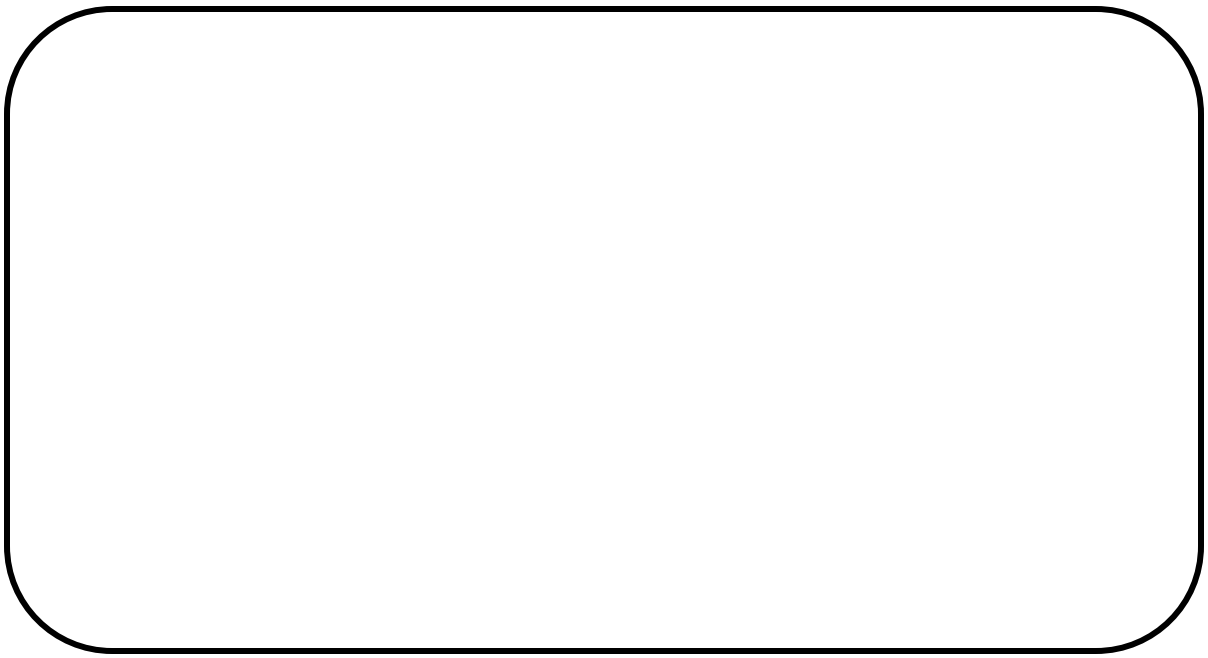
Helpful Tips:

- Have paper towels and a broom/dustpan on hand to help clean up any spills.
- You may want to place either a rimmed cookie sheet or the lid of the cake pan underneath it to help catch any excess water that pools at the base of the stream table and leaks out.
- If the weather is nice, it may be most convenient to complete this project outside.

Name: _____

Erosion in Action

1. When you have been given your aluminum pan filled with sand, smooth out the top of the sand so that it is as flat as possible. Work together as a group to create geologic features in your pan like mountains or volcanos, islands, valleys, plains and plateaus. You could even try to create a path for your river to follow.
2. Draw a picture of your completed “river-scape” in the box below. Label the geologic features you have created, and label which side of your pan will have the source of your river.



3. Finish assembling your mini-stream table by taping a ruler across the “source” end of your pan. Next, take a cup and poke a whole in the bottom of it using a sharpened pencil. Do not place this hole in the center of the cup. Position the cup somewhere on the ruler so that the hole will allow water to flow down onto your stream table. Finally, prop the “source” end of your pan up on the book so that your mini-stream table is now at slight incline.
4. Draw a picture of your mini-stream table as it is currently set up. To do this, take a look at it from the side and draw what you see; label each of the parts (pan, cup, ruler, book).

Erosion in Action

5. Take a final look at your dry river-scape. What do you think will happen when your river begins to flow?

6. Carefully use your water bottle to fill up the Styrofoam cup and allow water (your river) to begin flowing through the landscape you created. Observe your river-scape carefully.
7. After the water has stopped flowing, record your observations below and draw a picture of your changed river-scape. What happened to your geologic features?

8. What do you think would happen if next time you poured the entire cup of water onto your river-scape all at once, rather than letting it flow slowly?

Sixth Grade Field Trip, Element 2: History—Anne Frank's Legacy

TEACHER GUIDE TO *PEORIA HOLOCAUST MEMORIAL*

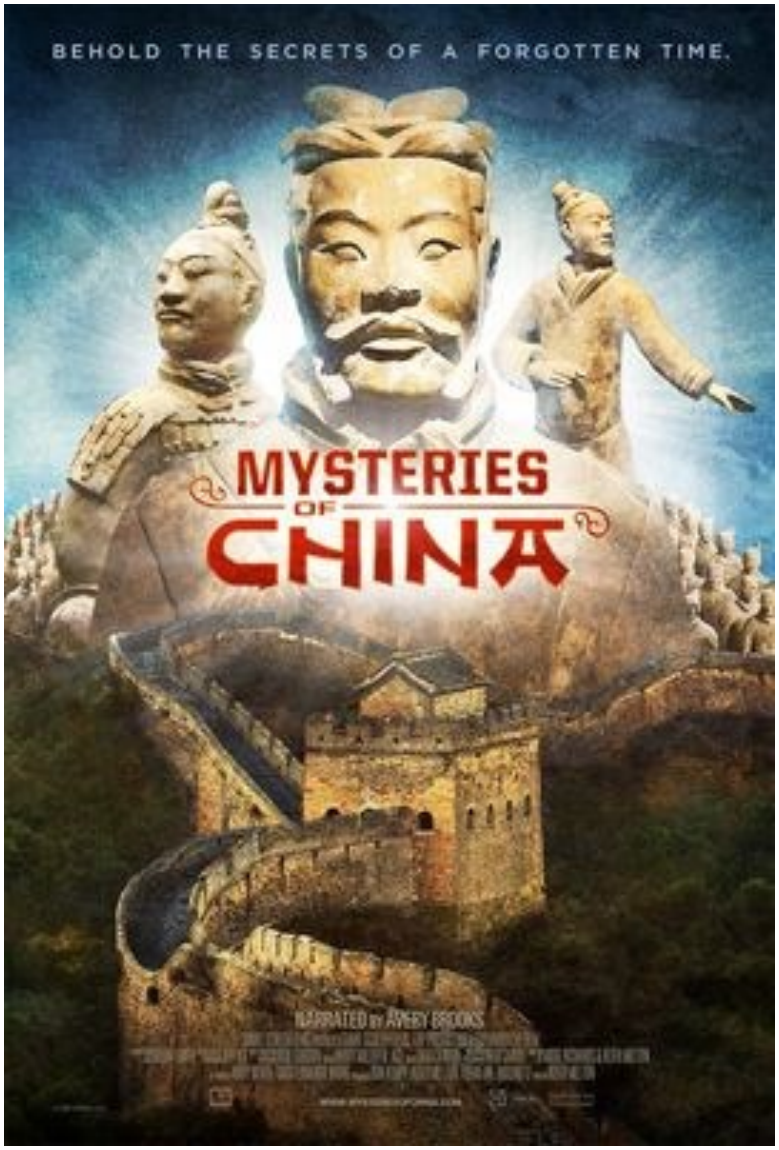
Our human minds continually search for creative solutions to new challenges. The Peoria Holocaust Memorial – a collection of 11 million buttons, 6 million for the Jewish victims of the Holocaust and 5 million for other enemies of the Nazi state – is one of the most unique remembrances of and lessons on this tragic, horrific and cruelest extermination of human life. After changes at the original location of the Memorial, a conversation began about seeking a new site that would promote ever greater awareness. The search ignited a remarkable discussion about creating the ultimate learning and historic experience in one location.

The Peoria Riverfront Museum was ultimately chosen. The Museum has opened doors for local, national and world audiences engaging in lifelong learning, and now that mission will grow with the addition of the Peoria Holocaust Memorial. An unused section of the Museum grounds proved to be the perfect size and setting for the relocation of the Memorial – as if it were bashert (destiny) – meant to be. Many individuals and groups worked on the first memorial to make it a reality, and as a result, hundreds of thousands of visitors saw the unique display of stars and triangles filled with buttons of every size, color and shape, each representing a human life extinguished by the Nazi regime.

Now the "Button Project" idea – conceived in 2001 and delivered in 2003 with the opening of the original Peoria Holocaust Memorial – is preparing for a momentous rebirth. A new generation is joining the evolved mission to keep the message alive and in front of countless more visitors. The deepened commitment to educating people about the horrific consequences of intolerance, bigotry, hatred and prejudice is even more relevant today in a world that struggles with these issues.

Visit *http://www.peoriaholocaustmemorial.org/* for more details or additional educational materials.

Sixth Grade Field Trip, Element 3: History—Ancient World, China



Mysteries of China captures one of the great archaeological events of the modern age, telling the story of ancient China, the First Emperor, and the literal foundation of the China we know today. Through the lens of this groundbreaking discovery, we explore an ancient time when a fierce warrior brought together a warring nation and how an accidental discovery changed everything we know about China's past.

The discovery of the Terracotta Warriors and the Tomb of the First Emperor offers a unique time capsule into the past, revealing many things about this great country, which we use to tell a larger story of the growth of China into a true superpower. From modern China to ancient China and back again, the film is a visual adventure, using beautiful aerial photography and cutting-edge time-lapse techniques to reveal great majesty, tragedy, splendor and growth in a nation that continues to excel quickly into the future.

Assembling an Artifact

Pre-Visit Activity Objective:

After completing this activity, students will have a deeper appreciation for the work of historians and archeologists, and be better able to articulate the steps locating, preparing, and displaying historical artifacts.

To begin the activity, ask your students to spend 2-3 minutes responding in writing to the following prompt:

How do we learn about the past?

Once students have written down their answers, ask them to share their thoughts and compile a list on the board.

Of all the many ways that we can learn about the past, today we are going to think back on our field trip to the Peoria Riverfront Museum and focus on archeology.

Information to share with your students:

The students will have already watched the Mysteries of China 3D *movie at the Giant Screen Theater while at the museum, so this information is intended as a quick review to help them remember what they learned from the film.*

About the Terracotta Army:

The Terracotta Army (simplified Chinese: 兵马俑; traditional Chinese: 兵馬俑; literally: "Soldier-and-horse funerary statues") is a collection of terracotta sculptures depicting the armies of Qin Shi Huang, the first Emperor of China. It is a form of funerary art buried with the emperor in 210–209 BCE and whose purpose was to protect the emperor in his afterlife.

The figures, dating from approximately the late third century BCE,[1] were discovered in 1974 by local farmers in Lintong District, Xi'an, Shaanxi province. The figures vary in height according to their roles, with the tallest being the generals. The figures include warriors, chariots and horses. Estimates from 2007 were that the three pits containing the Terracotta Army held more than 8,000 soldiers, 130 chariots with 520 horses and 150 cavalry horses, the majority of which remained buried in the pits nearby Qin Shi Huang's mausoleum.[2] Other terracotta non-military figures were found in other pits, including officials, acrobats, strongmen and musicians.

For more information on the Terracotta Warriors: http://www.nationalgeographic.com/archaeology-and-history/archaeology/emperor-qin/

About Archeology:

Archaeology is the study of the ancient and recent human past through material remains. It is a subfield of anthropology, the study of all human culture. From million-year-old fossilized remains of our earliest human ancestors in Africa, to 20th century buildings in present-day New York City, archaeology analyzes the physical remains of the past in pursuit of a broad and comprehensive understanding of human culture .

For more information on archeology: http://www.saa.org/Default.aspx?TabId=1346

Vocabulary Extension

Archaeology = the study of human activity in the past through examination of artifacts
Archaeologist = one who studies or performs archaeology
Artifact = any object made by human beings for a specific purpose
Excavate = to dig out material from the ground

POST-VISIT ACTIVITY: **Teacher Guide**

Assembling an Artifact

Supplies:

- Small terracotta pots from the Dollar Store (or something similar), 1 per group
- Hammers or strong rolling pins, 1 per group
- Colored permanent markers, several per group
- Strong zip-top plastic bags, 1 per group
- Liquid glue (school glue/Elmer's glue works well), 1 glue bottle per group
- Q-tips and paper plates (for glue application), 1 plate and several Q-tips per group
- 1 Index card per group, and display space at the front of the classroom (temporary)

Instructions:

1. Divide your class into groups of 5-6 students. Pass out 1 terracotta pot, 1 plastic bag, 1 hammer/rolling pin, and colored permanent markers to each group.
2. Students should work together to create a simple design on the pot with the permanent markers.
3. Have students place finished pots inside the zip-top plastic bag and seal it. Then, carefully use the hammer/rolling pin to smash the pot. You want the pot to be broken into several pieces, but not crushed into dust.
4. Help the groups to switch bags of terracotta pot pieces with one-another.
5. Each group of students should now work on reassembling the bag of pieces they have received.
6. Once they have successfully reassembled their terracotta pot, groups should create a museum label (using the template on page 16) for their artifact and display it at the front of the classroom.

Original Activity: http://education.asianart.org/explore-resources/lesson-or-activity/so-you-want-be-archaeologist-lesson

Conclude the activity:

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

Discussion:

Ask students to look around the classroom and list some organic and inorganic objects. What might survive in 1,000 years to tell our story to the archaeologists of the future? A binder made of plastic with metal rings might survive, but will the notes taken on the paper inside survive? Will a lunchbox survive? How about the lunch inside it? Will the computer still work? What will happen to our skeletons? To our clothes? To our desks? Will archaeologists recognize our building as a school? Just like you had to make predictions on what your clay artifact was used for, archaeologists of the future will have to make predictions about what our school was used for, without knowing it was a school. What do you think they will say?

Group Name: _____

Assembling an Artifact

Instructions:

1. Work with the members of your group to create a simple design on your terracotta pot with permanent markers.
2. Place your finished pot inside the zip-top plastic bag and seal it. Then, carefully use the hammer/rolling pin to smash the pot. **You want the pot to be broken into several pieces, but not crushed into dust.**
3. Swap bags of terracotta pieces with another group according to your teacher's instructions.
4. Work with the members of your group to reassemble the artifact in your bag using the Q-tips and glue.
5. Once your group has successfully reassembled the artifact, create a museum label on your index card for your piece using the example below.