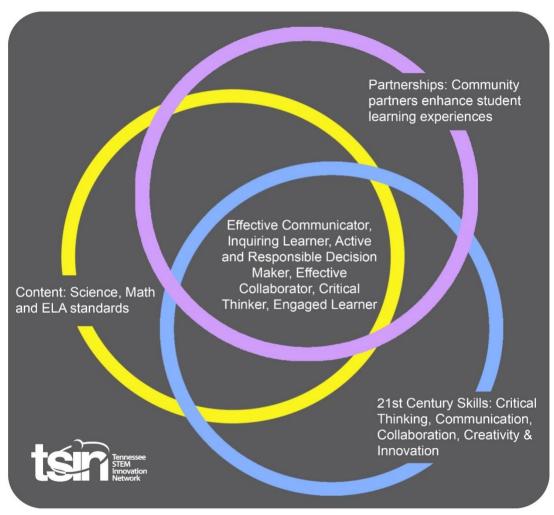
Archaeology Project/Problem Based Learning Lesson









TSIN PBL Template

Created By:	Topic:	Grade Level or Subject:
Kattie Stevens	Cultural Management- How to Protect	5th
	Artifacts	

Science Standards:

5.ETS1.1

Research, test, re-test, and communicate a design to solve a problem.

5.ETS2.3

Identify how scientific discoveries lead to new and improved technologies.

Math Standards:

5.NF.B.6

Solve real-world problems involving multiplication of fractions and mixed numbers by using visual fraction models or equations to represent the problem.

Social Studies Practice:

SSP.01

Gather information from a variety of primary and secondary sources, including:

- Printed materials
- Graphic representations
- Artifacts
- Media and technology sources







PBL Summary: Write a few sentences describing this PBL unit.

In 1974, Tennessee Valley Authority (TVA) began hiring its own full-time archeology staff. The goal was for this staff to preserve and document the historic sites and structures owned or impacted by TVA. Today, TVA manages over 11,500 archaeological sites. These sites include many dams, powerhouses, and numerous historic structures. TVA works with local groups and communities to protect archaeological sites to preserve them for future generations.

Human beings are one of the greatest threats to historic objects. Many objects are damaged because people vandalize or touch them. In this PBL, students will focus on human impact on archaeological sites and devise an action plan to protect these sites.

Driving/Multi-dimensional Question: Think of a relevant problem with multiple solutions that will drive student learning.

How can we, as Archeologists, use scientific ideas and modern technology to solve problems concerning environmental preservation of artifacts?

Tennessee Academic Standards for Science Connection

Disciplinary Core Idea(s): Science & Engineering Practice(s): Cross Cutting Concept(s):

ESS- Earth and Space Science Constructing Explanations and Designing Solutions Cause and Effect

21st Century Skills Addressed (check all that apply):

<u>x</u> Creativity <u>x</u> Collaboration <u>x</u> Critical Thinking <u>x</u> Communication







Culminating Event: What final student learning products will show student mastery of the content area standards? As an archeologist, students will develop a plan of suggested actions, based on evidence, to show how humans can protect							
archeological sites in their area.							
Hook Event: Develop an introductory activity that will spark student interest and further questions.	Community Partners: List potential business or industry partners that could add to the learning experience for students. Include websites or contact	What do you need from these partners (i.e. guest speaker, field trip, help facilitate an activity)?					
Watch TVA Archaeologist video	info.						
TVA oversees some 11,500 archaeological sites across the country. Erin Pritchard, an archaeological	1. Erin Dunsmore, TVA Archaeological Specialist	1. Guest speaker eepritchard@tva.gov					
specialist with TVA, says it is a constant challenge to deal with illegal excavating and looting of artifacts on these sites. (Video by J. Miles Cary/New Sentinel)	2. Citizen Archivist	2. Join the National Archives and Records Administration to help transcribe its vast historical records. www.archives.gov/citizen-archivist					
Read more about Senior Archaeological Specialist, Erin Pritchard and the Valley's Legacy.	3. Archaeological Institute of America	3. Skype an Archaeologist					
Daily Activities: What activities will stud	Resources/Materials Needed:						
dimensional/driving question (that reinforces content from the standards)?		** * * * * * *					
Archaeology is the study of people and ar provides us with the opportunity to learn	Hook Activity: TVA Archaeologist video						
artifacts, animal bones, and historical struprovides insight and allows us to piece to	Erin Pritchard video						







Activity:

1. What is an Archaeologist? What does and Archaeologist do?

Learn to think like an archaeologist by researching the career expectations of an archaeologist.

- 1. What education is required to be an archaeologist?
- 2. How long does it take to become an archaeologist?
- 3. How much do archaeologist make a year?
- 4. What does and archaeologist do on a daily basis?

2. What Can We Learn from Artifacts?

Students will work in teams to determine what artifacts are, how they are discovered, and what information can be learned from them. Students will use trash to learn about people today, much like archaeologist use ancient "trash" to gain insight about people's lives in the past.

Materials:

- -Rubber gloves
- -Trash can filled with garbage
- -Newspaper or plastic

Archaeologists dig to look for clues about life in the past. Ancient trash can tell a lot about the past. Long ago, people buried their trash in pits. Objects that don't decay give a lot of insight about ancient civilization.

- 1. Spread out the newspaper or plastic on the floor or a table.
- 2. Put on rubber gloves.
- 3. Take trash out one piece at a time and place it on the newspaper/plastic.
- 4. Make note of the trash and what kind of story it could tell about the person/family disposing of the trash.

Activity 2:

- -Rubber gloves
- -Trash can filled with garbage
- -Newspaper or plastic

Activity 3:

Tennessee Division of Archaeology







3. Artifact Ethics

Students will work in groups to create an action plan regarding site and artifact protection after exploring the <u>Tennessee Division of Archaeology</u> website.

- 1. Have students examine their own values and views about archaeological site protection.
- 2. Each group should list possible actions they could take regarding site and artifact protection.
- 3. Create a multimedia presentation outlining their Artifacts Ethics Action Plan.

Technology Integration: How is technology embedded into this PBL unit?

Technology is embedded and integrated throughout this PBL by conducting research to gain background knowledge. Students will also use technology to present their "action plan."

Capstone Presentation: How will students present what they've learned publicly? This can be the culminating event if that event is presenting what has been learned publicly.

As an archeologist, develop a plan of suggested actions, based on evidence, to show how humans can protect archeological sites in your area.







Performance Based Rubric

Standards	Developing	On-Target	Mastery
Action Plan Presentation	Presentation did not relate to	Presentation related to topic.	All content directly related to
	topic. Included few details	Included details and relied	the topic. Content was
	and relied heavily upon	heavily upon fact.	thoroughly developed and
	unsupported opinion.		demonstrated detailed
			knowledge of the topic.
			Opinions were supported by
			fact wherever possible.





