

WINGS PROGRAM GOALS

To develop the student's thinking skills

To develop the student's communication skills

To develop the student's understanding of self and others.

Dig It! Archaeology

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I. Overall Concept Of The Course

Archaeology is the study of the human past and provides opportunities in many disciplines. DIG IT unit gives students an understanding of our common heritage, who we are as human beings, and how we came to be the way we are today. It is a mystery-laden experience that requires imagination, creativity, and logic. This unit will help students develop thoughtful, informed, and responsible behavior toward cultural resources, which are non-renewable and non replaceable. Students will be introduced to new and exciting career options.

II. Unit Rationale

In this unit, students will learn about the tools and work of archaeologists. Students will first use this knowledge as they take part in a simulation in which they will act as lab workers in the lab of an archaeologist. They will classify and count the artifacts found, construct a bar graph which displays the class totals of the items. They will also do a simulation in which the students will dig for artifacts, fill out a report form about the artifacts found and make conclusions about the culture and time period from which the artifacts came. Students will also participate in a garbology lesson in which groups of students will make deductions about the family that the garbage came from. The final activity will be to research a famous archaeology site in the world and create a presentation to present to peers. During the unit students will have the opportunity to experience:

- activities which enable them to operate at complex levels of thought.
- divergent production.
- challenging group and individual work which demonstrates process/product outcomes.
- acceleration of the pace and depth of science content.

- application of abilities to real-world problems.

III. Measurable Learner Objectives:

Each student in the class will be expected to successfully complete the following unit objectives:

1. Students will correctly identify 12 tools used by an archaeologist.
2. Students will understand the different fields of history in archaeology.
3. Students will understand how careful an archaeologist must be as they excavate chocolate chips from a cookie.
4. Students will learn how to use a map grid to identify artifacts on a map.
5. Students will use a Cartesian coordinate system to: establish a grid given the tag board land area, map objects, and journal notes for reconstruction of a site.
6. Students will create an edible archaeological site and understand the natural formation of stratigraphy.
7. Students will learn how archaeologists use stratigraphy as a tool to date artifacts.
8. Students will participate in a hands-on simulation of archaeology lab workers as they classify and record artifacts.
9. Students will analyze and categorize objects.
10. Students will create a graph to represent class total and review x-axis and y-axis to construct an effective bar graph.
11. Students will learn how to calculate the perimeter and the area of an archaeological site.
12. Students will become an archaeologist on a small scale and uncover the stratified layers in a shoebox.
13. Students will be introduced to famous archaeological sites to research.
14. Students will learn how to calculate the circumference and radius of a circle.
15. Students will participate in a hands-on simulation to find sherds and reassemble a clay pot.
16. Students will identify and create questions and hypotheses that can be answered through scientific investigation.
17. Students will analyze evidence to explain observations, make inferences and predictions, and develop the relationship between evidence and explanation.
18. Students will use oral and written language to defend conclusions of scientific investigations.
19. Students will research a famous archaeological site and create a google slide presentation.

20. Students will be able to identify the 6 agents of artifact destruction, observe and describe the effects of these agents of destruction on artifacts, recognize conditions in their everyday lives that lead to the deterioration of objects.

IV. Applied Thinking Skills

The following are the primary thinking skills, which the students will apply while completing this unit:

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|----------------------------------|---------------------------|
| *focusing on a question | *deciding on an action |
| *interacting with others | *creative problem solving |
| *synthesizing | *interpreting data |
| *goal setting/planning/designing | *memorization |

V. Applied Affective Skills

- Students will have the opportunity to recognize personal capabilities.
- Students will develop interpersonal and group process skills.
- Students will develop decision-making skills.

VI. Resources Used:

Books

- Archaeology. Nashville, TN: Incentive Publications, Inc. 1999.
- Garfield, Gary and Suzanne McDonough. Dig that Site: Exploring Archaeology, History, and Civilization on the Internet
- Gibson, Michael. A New look at Treasures of Archaeology -Nordgaarden, Carol. Create a Culture
- Harrison, David. Cave Detectives. San Francisco: Chronicle Books, 2007.
- Kitamura, Satoshi. Stone Age Boy
- MaCaulay, David. Motel of the Mysteries. Boston: Houghton Mifflin Co., 1979.
- Mythology, Archaeology, and Architecture. The Learning Works, Inc., 1982
- Stuart, Gene. Secrets from the Past
- Sylester, Diane and Mary Wiemann. Mythology-Archaeology-Architecture

Multimedia

Adventure in Archaeology and What is Archaeology

<https://drive.google.com/drive/folders/1Byz7CKHOFgJhmys9JqCxXRiiINDNeahI>

Tools of the Archaeologist

<https://drive.google.com/drive/folders/1Byz7CKHOFgJhmys9JqCxXRiiINDNeahI>

Bill Nye "Archaeology" DVD

Websites

-Discovering the Past

<https://resourcelibrary.history.org/node/232/video>

-Introduce stratigraphy

https://www.youtube.com/watch?v=6w_TJS5j01M

-Colonial Williamsburg Web Activity Dirt Detective

<https://resourcelibrary.history.org/node/232/activities>

-Shoe Box Dig

<https://www.youtube.com/watch?v=PcT1vGyJzyg>

-Sherd Nerds

<https://www.youtube.com/watch?v=5mHX9M3g6Ek&list=PL2b6pyLefJdot1Xm3oig6vebHVHp3CfSe&index=5&t=0s>

-Feature This

<https://resourcelibrary.history.org/sites/default/files/teacherguide/DiscoveringthePastFeatureThis.pdf>

- Nothing Lasts Forever

<https://resourcelibrary.history.org/sites/default/files/teacherguides/TreasureKeepersNothingLastsForever.pdf>