

# Bones & Stones

## WHO IS IT FOR?

- ◆ Young Scientists . . .
- ◆ Evolving Mathematicians . . .
- ◆ Emerging Linguists . . .
- ◆ Sprouting Historians . . .
- ◆ Budding Artists . . .

**TARGETED LEVEL:**  
(Fifth Grade)

## THE CHALLENGE:

The students will . . .

- ⇒ begin to develop an understanding of the importance of learning about the past through analysis of artifacts.
- ⇒ construct reasonable explanations and draw conclusions using given information and prior knowledge.

## SAFETY ISSUES & CONCERNS:

- \* None.

## WHAT'CHA NEED?

1. Paper
2. Pencil
3. EFEC Environmental Journals

## TIME NEEDED FOR the post-visit activity:

Minimum of 45 minutes.

## Post-Visit Activity

Archaeologists study human cultures by analyzing the material remains those cultures leave behind. It is one of four sub-fields of anthropology and, is related to history in that both attempt to understand the past. The differences between history and archaeology are based on the types of evidence each uses to understand the past. Historians normally utilize written records in their quest for understanding, while archaeologists study artifacts and sites, in other words, the things people used and the place where they used them.

Commonly, in the United States, archaeologists earn degrees in Anthropology. They generally receive a Bachelor of Arts and a Master of Arts degree, while some continue on and earn their Ph.D.

Archaeologists can find employment with colleges and university, state and federal agencies, and private consultant firms. Cultural resource management is a branch of archaeology that grew out of legislation requiring state and federal agencies to consider the impact that a proposed development project could have on prehistoric and historic sites. Governmental agency and consultant firm archaeologists as well as universities with an archaeology contracting division frequently do work on proposed development projects. Archaeologists pursuing research topics often receive funding by writing grant proposals.

In this *Post-Visit Activity* the students will pose as archaeologists who are employed by a university. Using the data they obtained in the *On-Site Activity* and the knowledge they gained in the *Pre-Visit Activity*, the students will write grant proposals, seeking funding to further their investigation into the Prehistoric site that they uncovered at the Elm Fork Education Center.



## WORDS TO KNOW?

1. Anthropology
2. Archaeology
3. Archaeologists
4. Artifacts

## DID YOU KNOW . . .

Archaeology is a study that requires a broad understanding of soils, plant and animal life, geology, surveying, chemistry, technology, statistics and social sciences?

Nationwide, nearly half of all the people receiving degrees in Anthropology are women?

## EXTRA STUFF?

Related books/stories and **on-line sources**:

1. Archaeology:  
[www.smu.edu/~anthrop/anthcollections.html](http://www.smu.edu/~anthrop/anthcollections.html)
2. Archaeology:  
[www.hanksville.org/Naresources/](http://www.hanksville.org/Naresources/)
3. Archaeology:  
[www.peak.org/csfa/mt11-1.html](http://www.peak.org/csfa/mt11-1.html)

## TEKS CONNECTIONS:

Science TEKS - Fifth Grade:

4.2 (C) - The students will analyze and interpret information to construct reasonable explanations from direct and indirect evidence.

Denton ISD Science S.P.O. Fifth Grade:

S1.3 – The student will ask well-defined questions, formulate hypotheses, collect information through direct and indirect observations, analyze and interpret information to construct reasonable explanations, construct graphs, tables, maps, and charts using computers, and organize, examine, and evaluate information as well as begin to develop simple experimental designs for investigations.

## PROCEDURES:

*Ready, Set, Go . . .*

1. Discuss with the students their experience at the EFEC. Allow them the opportunity to share what they believe the artifacts they uncovered really tell us about the people who came before.
2. Provide the students an opportunity to finish their bone to stone ratios for each of the sites.
3. Accumulate and summarize the data.
4. If the site had over 75% bone and less than 25% stone it would be considered a kill or butcher site.
5. If the site had over 75% stone and less than 25% bone it would be considered a quarry site.
6. If the site had an equal ratio it would be considered a home campsite.
7. Discuss with the students their interpretation of the data as it relates to the different sites.
8. Inform the students that archaeologists often must seek funding in order to continue their research of a particular site.
9. Remind the students that in this case, they too are archaeologists and ask them if they feel that the site they uncovered at the EFEC would be significant enough to merit further research.
10. If the consensus is yes, provide the students with the following scenario:

You are an archaeologist employed by Denton University. You have done an initial analysis of the EFEC dig area and have determined that there are actually three very distinct sites present within the area. You believe that this is an important and significant find and would like to continue your research.

Write a grant to the R. Thompson foundation, seeking funding to continue your research. The grant must contain the following information:

- ❖ Name of Archaeologist (or archaeology team)
- ❖ Name of site excavated
- ❖ Date of excavation
- ❖ Brief description of the excavation site
- ❖ Brief overview of the artifacts found
- ❖ Graph and or graphs of the ratios of bone to stone for each of the three sites.
- ❖ Based on your knowledge and data, which site do you believe contains the most significant finds? Why?
- ❖ What, in your professional opinion, would further investigation of this site tell us about the people who created the site?

## Assessment:

EFEC Journals  
Graphs  
Grants

**The Bottom Line:** Archaeologists use data analysis and interpretation, as tools to better understand the various cultures that have inhabited the North Texas region.