

WHO IS IT FOR?

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

TARGETED LEVEL:

(Third Grade)

THE CHALLENGE:

The students will . . .

- ⇒ begin to understand the importance of measurement as it relates to archaeology.
- ⇒ understand how archaeologists “map” and measure their finds.
- ⇒ classify objects based on given information.
- ⇒ interpret and use charts, graphs, and pictographs.
- ⇒ construct reasonable explanations and draw conclusions using given information and prior knowledge.

SAFETY ISSUES & CONCERNS:

- * None

WHAT’CHA NEED?

1. Large piece of chart paper or overhead or chalkboard.
2. Student EFEC Science Journals
3. Graphing Artifacts Activity sheet for each student.

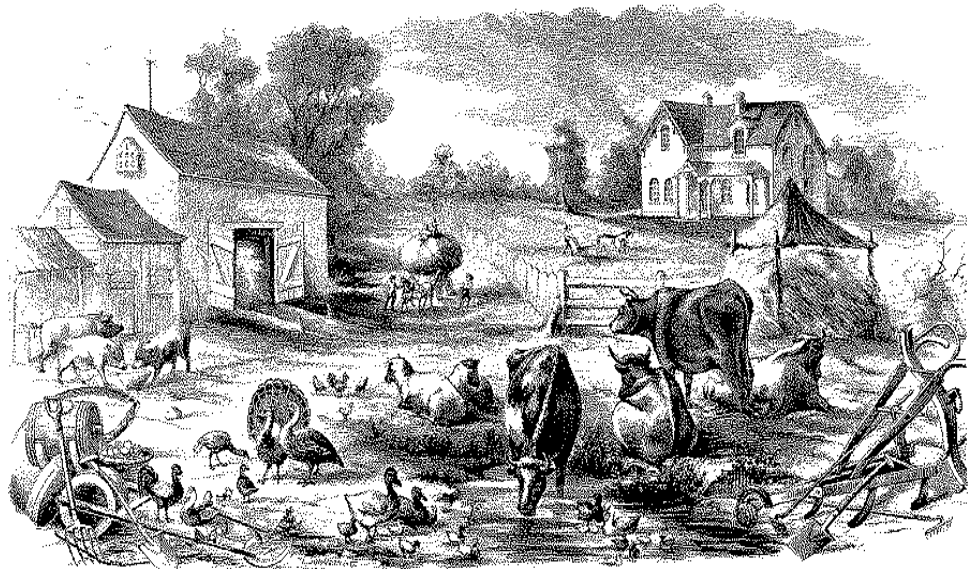
**TIME NEEDED FOR
THE *post-visit* Activity:**
Minimum of 45 minutes.

Local History

Post-Visit Activity

Through the archaeological experience both with the pre-visit activity and within the dig site at the Elm Fork Education Center, the students learned the importance of accurate recording of information or data. The steps beyond the recording of the data are the actual interpretation of the data and ultimately, an analysis of the data. The student archaeologists at the Elm Fork Education Center, uncovered artifacts, which would have been present during the Peters Colony Period, which began back in the early 1840s. The artifacts uncovered are artifacts that would have been found on an average farm site during that period. Many items found, then, would include pottery, farm tools, charred wood, horseshoes, cow bones, deer bones, rabbit bones, and a variety of other basic farm related implements.

The purpose of the post-visit activity is to allow the students the opportunity to analyze the data they obtained about the artifacts they uncovered while at the EFEC. The students will learn that graphing can be used as a tool to organize data and provide a means by which the students can begin to interpret what their data tells us about the people who lived in the North Texas area in the 1870s.



WORDS TO KNOW?

5. Artifacts
6. Mapping
7. Grids and/or quadrants
8. Coordinates
9. Graphs
10. Graphing

DID YOU KNOW . . .

Some of the children's items that were recovered from excavations at the Jones and Johnson farms were a porcelain doll, a porcelain doll cup, slate pencils and ceramic marbles?

EXTRA STUFF?

1. <http://www.dentonhistory.org>
2. <http://www.co.denton.tx.us/history.asp>

TEKS

CONNECTIONS:

Science TEKS - Third Grade:

3.2 (C) – Students will analyze and interpret information to construct reasonable explanations from direct and indirect evidence.

3.2 (E) – The students will construct simple graphs, tables, maps, and charts to organize, examine and evaluate information.

Denton ISD Science S.P.O. – Third Grade:

S3.2 – The student will recognize, analyze, predict, illustrate, and demonstrate patterns and changes in organisms, objects, and events.

psst . . .

The data obtained from the archaeology site can be used in a variety of math applications! Feel free to use any and all of it for as many math lessons as you want or need!

psst . . .

PROCEDURES:

Ready, Set, Go . . .

1. Discuss with the students their experience at the Elm Fork Education Center and begin a discussion about graphs and the uses of graphs.
2. Write on the board all of the graphs that the students can think of. What are the differences between these types of graphs? What are the similarities? Why is there a need for different types of graphs?
3. Ask the students to take out their EFEC Environmental Journals and inform them that you are going to take all of the data that each team collected and combine it into one large data chart. (This can be done on chart paper, the overhead, or on the blackboard).
4. Ask the students, if by combining all of the data, and/or by having a large amount of data, whether or not it makes the data easier to understand or if it makes it more confusing.
5. If the students agree that it is more confusing, ask them for suggestions on methods for writing the data that would make it less confusing. (They might suggest separating the data, only looking at certain pieces of the data at any one time, etc.)
6. Allow the students to come up with a variety of ways that the data could be more easily displayed, and thus more easily interpreted. Write all of their answers on the board.
7. Lead the students into a discussion as to whether or not graphing the data would provide a means by which the data could be more easily interpreted?
8. When the discussion comes to a close, provide a *Graphing Artifacts* sheet to every student (or to teams of students)
9. Do the *Graphing Artifacts – number of items compared to size of items* – with the students.
10. When the students have successfully completed the first graph, have the students, independently, complete the second graph: *Graphing Artifacts – number of items, compared to type of item*.
11. When the students have successfully completed the second graph, allow the students the opportunity to make “best guesses” or inferences about what the graphed data tells them about the artifacts they uncovered. For example, the graph may show that the majority of the items were animal bones, what might this tell us about that time period? Maybe that animal bone preserves better than other materials? That the bones themselves had little use or value, and thus lay undisturbed? Etc.
12. Take the students to a local history museum. **And/Or**
13. Take the students to the computer lab and allow them to interact with the museums listed to the left under *Extra Stuff*

Assessment: *Graphing Artifacts* activity sheets

The Bottom Line: This post-visit activity is designed to provide an opportunity for the students to graph and interpret the data they collected at the dig site and reinforce the importance of using graphs.

Graphing Artifacts

Size							
Of							
Items							

Of Items

Graphing Artifacts

