



Pre and post-visit activities for *King Tut* Field Trip Package

An Earth Science Lesson for Grades 3 - 8

Learning Goals (for field trip and pre/post-activities)

- Students will learn the historical geology and geography of Egypt
- Students will be able to identify the differences/similarities of archaeology, paleontology, and geology
- Students will be able to formulate and identify questions to guide scientific investigations that connect to science concepts
- Describe historical events/issues and scientific phenomena from the perspectives of people living at the time in order to avoid evaluating the past in terms of today's norms and values

Pre-visit Activities

Before bringing students to the Science Center you may want to try some of the following activities in order to activate prior knowledge and prepare them for their field trip. (Grades 3 to 8) Lessons should be adjusted for grade level.

1. Apple Mummies
 - a. Needed materials (Per Participant): Small Apple, Plastic Knife, Baking Soda, Table Salt, Two Disposable Cups, Measuring Cup
 - b. Pre-Activity Discussion: Introduce your students to ancient Egyptian culture:
 - i. Ancient Egyptians believed strongly in an afterlife. They believed the deceased person would need their body in the afterlife and so they carefully mummified their dead in order to preserve their body. What can we learn from mummies?
 - ii. We can learn about the ancient Egyptians belief system, diseases, dietary habits, working conditions, and the economy through studying the mummies of ancient Egypt.
 - c. Activity:
 - i. Cut the apple in half and place the halves into the disposable plastic cups.
 - ii. Fill the measuring cup with baking soda up to the 1/3rd mark. Then add salt until the cup is filled to the 2/3rd mark. Mix the salt and baking soda together in the cup.
 - iii. Pour the mixture into one of the disposable cups. Make sure the entire apple slice is completely covered.
 - iv. Put the cups on a shelf somewhere out of direct sunlight for one week. The uncovered cup will serve as a control to what happens if the apple slice is left untreated.
 - v. After a week, check on your apples.
 - d. Possible Interactive Questions:



- i. Before adding the substances together, what are your predictions? What will happen to the apple? Why? How long will it take?
 - ii. After several days, what happened to the apple? Why? What about after a week?
- e. What Happened? The ancient Egyptians preserved human bodies after death by making them into mummies. A body is mummified by removing most of the moisture from it so that it is difficult for bacteria to thrive inside it and cause decay. The Egyptians did this by covering the body with natron, a naturally occurring desiccant. A desiccant removes water from the material in contact with it.
- f. Further Exploration: Try a variety of fruit, vegetables, and meat (hot dogs work great!). Do certain substances dry faster than others do? Compare mummifying to dehydration. How are they alike/ different?

Post-visit Activities

You can extend your visit to the Science Center back in the classroom with the following post-visit activities. (Grades 3 to 8) Lessons should be adjusted for grade level.

1. Egypt Stories
 - a. Materials: Images of Egyptian tombs, specifically artwork.
 - b. Activity (Part One):
 - i. Show the class a scene from an Egyptian tomb. Have students observe what they see happening in the wall art.
 - ii. Homework: have students write a story about what they think the tomb art represents. Students should write a short story that references specific items or scenes they see in the tomb art.
 - c. Activity (Part Two):
 - i. Have students share their stories with the class.
 - ii. Read descriptions written by real Egyptologists of what the scenes depict.
 - iii. Lead the class in a discussion comparing and contrasting their stories to the interpretations from Egyptologists.
 - d. Possible Interactive Questions:
 - i. What can these tomb art scenes tell us about what everyday life was like in ancient Egypt?
 - ii. Why is it important to interpret scenes like these?
 - e. Further Exploration:
 - i. Have students create their own tomb wall art that would represent their life. Explain that Egyptians painted people using the technique of "frontalism." The head and legs are seen in profile. The eye (they only drew a single eye in most instances) and torso are shown from a frontal point of view. Pharaohs are drawn larger than other people to display their importance. The wife and family of the Pharaoh would be drawn a bit smaller, the government administrators smaller than that, and on and on.



Standards Addressed (NGSS)

- NGSS 3ESS2-1, 4ESS1-1, 4ESS2-1, 5ESS2-1, 5-ESS3-1, MS-ESS1-4, MS-ESS2-1, MSS-ESS2-2, MSS-EES3-3

Resources

Websites

- King Tut One - <http://kingtutone.com>
- History - <http://www.history.com/topics/ancient-history/tutankhamen>
- History Museum - <http://www.historymuseum.ca/cmce/exhibitions/civil/egypt/egtut01e.shtml>
- The British Museum - <http://www.ancientegypt.co.uk/menu.html>
- Discovering Ancient Egypt - <https://discoveringegypt.com/>
- Tour Egypt - <http://www.touregypt.net/geo/>

Books

- National Geographic Kids Everything Ancient Egypt: Dig Into a Treasure Trove of Facts, Photos, and Fun by Crispin Boyer ages 8-12
- DK Eyewitness Books: Ancient Egypt by George Hart ages 8-12
- Tales of Ancient Egypt by Roger Lancelyn Green ages 10 and up
- Egypt: The World of the Pharaohs by Matthias Seidel all ages
- Ancient Egypt by Ken Jennings ages 8-10
- Science in Ancient Egypt by Geraldine Woods ages 9-12
- Food and Cooking in Ancient Egypt by Clive Gifford ages 8-11
- The Unknown Tutankhamun by Marianne Eaton-Krauss all ages