

FORT CALGARY

FORT CALGARY TEACHER'S GUIDE -ARCHAEOLOGY

Length: 1 hour 30 minutes

Intro/Slide Show

approx. 25 minutes

The Dig

approx. 40 minutes

Archaeological Conference/Sharing

approx. 20 minutes

Visit Archaeological Touch Wall

approx. 5 minutes (if time allows)

Purpose:

- To introduce the children to the concept of archaeology as one method of uncovering clues to our community's history. To reinforce ideas of history as a passage of time; realize the entwined relationships that developed between the four main populations that shared this area: Aboriginals, Missionaries, Settlers and NWMP.

- To allow children to use deductive reasoning and hands-on learning to work together as a group and come to their own conclusions through a process rather than being given answers.

Curriculum Connection:

Social Studies (grade four): 4.1.1, 4.1.4, 4.2.1

(grade five): 5.1.1, 5.1.3, 5.2.2, 5.S.3, 5.S.4

Science (grade six): Topic D: Evidence and Investigation

Program Overview:

Students will engage in a discussion with the facilitator about the role of archaeologists, the skills required and the archaeologist's responsibility to the community. The idea of what an artifact is and where they are found will also be touched on. They will watch a short slide show story of the history of Fort Calgary from the first Aboriginal people to the NWMP and the excavation and reconstruction of the current Fort. Students will then be sent "on assignment" to do their own excavation. Grade four students (or 5/6 ESL) will practice scientific illustration with the facilitator, learning how to carefully excavate, measure and record the artifacts that they find. Grades 5 and 6 will complete a chart asking them to draw conclusions based on recorded observations and measurements. A Venn diagram bonus question is available for extra time or back in class. After digging for artifacts in a team of two and recording as they go along, students will engage in a show and share "conference" where they have to conclude, based on their observations and artifact evidence, what the artifact is made of and who from Calgary's past would have used it. Reference material and visual aids are available so they can "research" some findings on their own.

Pre-Visit Lesson Plans:

- Definitions: prepare pupils by introducing definitions that are in bold on attached sheets.
- Measuring: using tape measures and metric rulers, complete exercises in horizontal and vertical measuring, recording, analysis, written and drawn description.
- Artifact Analysis: archaeologists learn about past human cultures by studying the artifacts which they have uncovered. Students can become familiar with this process by identifying, sorting and classifying a variety of objects (organic and inorganic/natural or artifact) which can be found at home or in the classroom. After each group of items has been sorted, identified and classified, have the pupils write a story about three or four of the items, telling why and how the items may have been left behind.
- What do you think Archaeology is? Consider this question and then read the books *Archaeology* from the *Eyewitness* series, *Digging Canadian History* by Rebecca L Grambo *Archaeologists Dig for Clues* by Kate Duke or *Archaeology for Kids* by Richard Panchyk. What do you think Archaeology is after reading the books? How did your idea of archaeology change? What did you learn that was new?

*Note: These books are available to read during your visit to Fort Calgary in our Children's Library and may also be for sale in our gift shop.

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Post-Visit Lesson Plans:

- For grades five and six, complete the Venn diagram on the reverse of your handout from your visit to Fort Calgary.
- Invent the artifact's story: Using the handout you completed during your visit, write a story from the point of view of one of the artifacts you found at Fort Calgary. Based on your knowledge from the excavation and your own ability to judge to the evidence you discovered and various hypotheses, write a story that explains the following:
 - Who invented me? Why?
 - Who made me? Where?
 - Who has owned me?
 - Where have I lived and travelled?
 - What have I been used for?
 - Have I been misused or neglected?
 - Does anyone use me now? Has a newer invention taken my place?
- Imagine you are an archaeologist writing a report of your findings to the National Geographic magazine. Use the information from the sheets used at Fort Calgary to write the report.
 - How were the artifacts made and used?
 - Why were they made?
 - How were these objects found?
 - What conclusions can you draw from your findings about the culture of the people who lived there?
 - What was life like in Calgary's Past?
- Visit the grades 4-6 student links at www.fortcalgary.com including:
- *Where is Vinland? Great Unsolved Mysteries in Canadian History*
Solve the archaeological mystery of Vikings in Newfoundland
<http://www.canadianmysteries.ca/sites/vinland/indexen.html> This is an archaeology-based interactive site designed for grade 6-10 students. It is designed to use methods of critical and historical thinking, Canadian history and archival research to solve historical cold crimes. This ties into the grade six science curriculums on forensic evidence and attempts to answer the question "How do we know?" There are free teacher's guides and support available as well.
- *Land of the Spirits: Virtual Archaeological Dig*
<http://www.virtualmuseum.ca/Exhibitions/Spirits/English/Dig/digdown.html>
An interactive virtual archaeology dig for grades 4-6.

Vocabulary Words:

Alberta Historical Resources: an act passed in the Alberta Legislature in 1973 designed to protect Alberta's non-renewable cultural, archaeological, historic, prehistoric, natural and scientific resources by empowering the Minister of Culture to order anyone undertaking land development activities to submit a report on the effect of their development on historical resources, and to undertake any further conservation or preservation measures necessary.

Archaeological Survey of Alberta: a branch of the Historical Resources Division of Alberta Culture. One of its major functions is to monitor all land development proposals that may affect archaeological sites.

Archaeological Site: a place where people once lived or worked, where buried objects from the past are uncovered.

Archaeology: the science concerned with the recovery, analysis, description and explanation of the remains of past human cultures.

Archaeologist: a person who excavates, identifies and studies artifacts that have been left behind by *humans*. Archaeologists do not study dinosaurs!!

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Artifact: any object manufactured, modified or deliberately shaped by humans. Includes tools, weapons, ceremonial items, art objects, garbage, clothing and all food remains.

Coordinates: ordered pairs of numbers which represent horizontal and vertical measurements of a point on a grid map.

Decompose: to break down; to rot. Organic materials will decompose if not preserved in some way.

Ecofact: items from nature found at the archaeological site that have not been manufactured or changed by humans. These items might provide important clues however, so they are still recorded with care.

Excavation: the careful and systematic digging in the soil to uncover artifacts.

Fossils: remnants or traces of organisms (plants and animals) of a past geologic age (long long time ago!), such as skeletons embedded and preserved in the Earth's crust. Archaeologists do not normally encounter or utilize fossils as they are almost always from a much older time period than that of modern humans.

Grid System: a fixed pattern of horizontal and vertical lines, used to divide an archaeological site into units of identical size. A single point is usually established first, and becomes one corner of the grid pattern. Square units make up a grid.

Horizontal: a word used to describe the position of an object lying flat or parallel to the horizon.

Inorganic: a word used to describe objects made of mineral-based materials, i.e., metal tools, stone arrowheads. These things will not decompose easily.

Obsidian: a type of rock made out of volcanic glass. Obsidian forms when hot lava from the earth erupts and cools very quickly. It has extremely sharp edges and was therefore used by indigenous peoples around the world to fashion both weapons and everyday tools.

Organic: A word used to describe objects made of plant or animal material, i.e., furs, woven baskets made of grass. These things usually decompose quickly.

Paleontologist: the study of life-forms from the very distant past. Chief among these life-forms are the dinosaurs, which dominated Earth for a period of more than 100 million years. Paleontologists do not study modern humans!

Stratigraphy: the study of the Earth's layers. One of the basic principles of stratigraphy is the *principle of superposition*. The Law of Superposition states that in any sequence of layered rocks, a given layer must be older than any layer on top of it.

Trowel: a triangle shaped flat-bladed tool used by archaeologists for digging.

Vertical: a term used to describe the position of an object standing straight up and down.