The lithic codebreaker game uses the digital exhibit of the Tse’K’wa lithic collection from Fort St. John area in Northeastern BC. Tse’K’wa is an archaeological site from the area, which is also known as Charlie Lake Cave. It dates from before 11,000 years ago. Ancient glacial action created a 12 m long gully in front of the cave; this has also acted as a soil trap over the past 10,000 + years and therefore also contains archaeological artifacts. The site was well known by local First Nations but was first documented by archaeologists in 1974.

Examples of artifacts found here are: a fluted point from the lowest and oldest level, most likely attached to a spear to hunt animals; arrow points, more spear points, grinding tools (stone tools made to grind other tools into shapes); a harpoon head made from bone and antler; and a bead.

Numerous animal remains have been found here as well, showing the diverse natural history of the area.

These finds tell us several things. The pollen and animal bones indicate an environment that has changed over the last tens of thousands of years. The area would have been open grassland and not the boreal forest of today. People would have been following the bison herds on their migration routes in different directions. This site, despite its age, is too young to be considered an integral part of the “ice-free corridor theory” (the theory that the continent was populated by people walking through glaciers in what is now Canada, between Alberta and BC). The main occupation site was actually the land above the cave, and the cave may have been used for ceremony or refuse.

The fluted points found in the cave are of a similar tool technology to that of lithics found in Montana. This indicates a shared technology, trade routes, and connections between ancient peoples.

From 4500 years ago to around the 19th century, the site became more actively used by humans.

A collection of stone tools has been found near the site on a farmer’s fields and is the basis of the online exhibit used in this activity. Similar tools to those in this collection were found at the Charlie Lake Cave site. They all indicate a shared technology and lifeway by the people of the area over thousands of years.

By creating an activity around this digital exhibit, we hope to encourage both students and educators to learn more about the history of BC’s First Nations, particularly the Dene of Northeastern BC. There is a rich cultural heritage and this activity focuses on the tools that were used for survival. These tools, currently on display in the SFU Museum (2016), are now accessible to anyone wishing to view them until they are returned to the Treaty 8 First Nation. In this way students can see that the history of this land extends much further back than they may realize and that people throughout time have had to be innovative in order to survive in their environment.
TEACHER INSTRUCTION
STEP BY STEP INSTRUCTIONS

The lithic codebreaker game is a puzzle game that uses the Tse’K’wa Digital Exhibit, a collection of lithic (stone) artifact photos and information based off of the Tse’K’wa collection found in Northeastern British Columbia.

There are two ways to get to the Tse’K’wa Lithic Digital Exhibit: under the Tse’K’wa link on the left hand menu or under Exhibits on the left hand menu and then click Virtual Exhibits. The Tse’K’wa exhibit will be on the right hand side underneath the Archaeology heading.

These links will take you to a series of photographs; each photograph will have information regarding the tool pictured. These photographs and their accompanying information is what is used in this activity. Make sure to point your students to this exhibit before beginning the activity.

NOTE: in order for students to find the right photograph, we are using the accession number located in the caption of each photo. These numbers are used in cataloguing the artifacts in the museum to keep them organized. E.g.: 2012.005.011

Once here, give each student the activity sheet (or they can download it from the Tse’K’wa web page beforehand). Each question will have a one or two-word answer. There are bubbles that encircle certain letters; when the answers are filled out correctly these bubbles will form a “password”, located at the bottom of the activity sheet.

They must enter this word at the end of the URL: http://www.sfu.ca/archaeology/museum/PASSWORD.html This will take them to a secret page not accessible any other way. From here they will get their prize. The correct URL is: http://www.sfu.ca/archaeology/museum/sfumuseumrocks.html

This game will teach students to analyze information presented to them in an interactive digital format. It focuses on the archaeological history of Northeastern BC and looks at ancient lifeways as a way to get students interested in archaeology in their own province, as well making them aware of the long and rich history of First Nations in BC and Canada.

DISCUSSION POINTS

- Lithics are more than stone tools; they are examples of trade routes, the movement of people throughout the region as well as the country. Similar tools can indicate passing of information or items (trade).
- How we can find information from websites and why it is important that cultural/historical/archaeological information be accessible on the internet (access to information in remote areas or nationally; all information must be agreed upon by Indigenous groups first).
- The existence of artifacts as evidence of First Nations presence in the past.
- Brief discussion about what archaeology is (the study of humankind’s history through material culture).

CONVERSATION QUESTIONS

- Why are some tools small and some large? (based on the scale in photographs)
- What should we do if we find a tool like this? Who do we contact? Why should we do this?
- Why do they use different materials for different types of tools?
- Compare archaeology of this region to your region.
LITHIC CODEBREAKER

ACTIVITY SHEET

1. Uniface Gallery, 2013.021.061: what type of tool is this?
   

2. Tse’K’wa Home Page: What tool do we use to read chemical components of lithic tools?
   
   ——— ○

3. Debitage Gallery, 2013.021.070: what type of object is this?
   

4. Biface Gallery, 2013.021.156: where is this material from?
   

5. Glossary of Terms: what is the process of a tool being modified by its use?
   

6. Biface Gallery, 2013.021.107: what type of base does this have?
   

7. Other Tools Gallery, 2013.021.165: what material is this made of?
   
   ——— ——— ——— ——— ○

8. Other Tools Gallery, 2013.021.802: what basic material is this made from?
   

9. Other Tools Gallery, 2013.021.766: what type of tool is this?
   

10. Glossary of Terms: what is the term for the outside of a stone tool?
    

11. Core Gallery, 2013.021.409: what type of artifact is this?
    

12. Tse’K’wa Home Page: What nearby archaeological site has similar tools?
    

13. What is the name of this collection?
    

14. Biface Gallery, 2013.021.161: what material is this point made from?
    

1. Scraper
2. pXRF
3. Utilized Flake
4. Mount Edziza
5. Usewear
6. Stemmed
7. Nephrite
8. Mudstone
9. Hammerstone
10. Cortex
11. Cobble tool
12. Charlie Lake Cave
13. Tse’ Kwa
14. Salt

PASSWORD: SFU MUSEUM ROCKS