

# HOW (AND WHY) WE DO ARCHAEOLOGY

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## An Introduction to the Indigenous Archaeological Record

ARCHAEOLOGY LESSON PLAN SERIES

FIRST PEOPLES OF THE ATLANTIC PROVINCES OF CANADA

MI'KMAQ, WOLASTOQIYIK, AND PESKOTOMUHKADI

### Lesson 5

## Surveys, Testing, and Excavation (Field Work)

DISCUSSION IDEAS AND EXERCISES

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How (and Why) We Do Archaeology: An Introduction to the Indigenous Archaeological Record

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Lesson Plan 5

Publication Date: 2020

Ottawa and Fredericton



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**Statement of recognition:** This lesson plan has been developed using educational facilities and resources within the traditional lands of the Wolastoqiyik and many other First Nations of Canada. The material in these lesson plans deals with the culture and history of the Wolastoqiyik, the Mi'kmaq, and the Peskotomuhkadi, as well as the First Nations in the Northeast of North America and across all of the Americas. Much of the knowledge base shared in this lesson plan is the direct result of the sharing of knowledge by the First Peoples of the Americas. The authors gratefully acknowledge that the unceded territories of the Mi'kmaq, Wolastoqiyik, and Peskotomuhkadi and all First Peoples made this lesson plan possible and that the rich cultural history of these peoples created the sites that we study.

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## **Note Concerning Ethical Treatment of the Archaeological Record**

This lesson plan is not intended to replace archaeological education or give students or teachers the skills to conduct archaeology. The authors and NCCIE in no way endorse seeking out Indigenous artifacts, withholding archaeological information from regulatory bodies, looking for archaeological sites, or digging with the intention to find artifacts or sites. Conducting archaeology, including excavation, testing, surveying, and monitoring, is only to be undertaken by an archaeologist or under the direction of an archaeologist who meets the criteria to be permitted by the provincial regulatory body of the province in question. The authors and NCCIE strongly condemn any activity that endangers the archaeological record, treats artifacts in a disrespectful way (such as selling or destroying artifacts), or impedes the ability of regulatory bodies to protect cultural resources.

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# HOW (AND WHY) WE DO ARCHAEOLOGY

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## An Introduction to the Indigenous Archaeological Record

Lesson

5

## Surveys, Testing, and Excavation (Field Work)

### DISCUSSION IDEAS AND ACTIVITIES

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#### *Discussion 1: Regulation in Archaeology*

Archaeological practice is regulated by the government to make sure that only people who understand the importance of archaeological context and good practices are doing archaeology. When people dig for artifacts without recording what they are digging through, all the information that goes along with those artifacts is lost. Additionally, artifacts are often found in sacred contexts such as burials, so digging up these artifacts is very disrespectful and can have very bad consequences for the people descended from the ancestors who made the site. However, regulating archaeology means that only some people can practice archaeology, while others, who might be respectful and knowledgeable, are not allowed to excavate. This can feel to some Indigenous people as though they are barred from accessing their own cultural resources.

**FIELD WORK**

**THINGS TO  
CONSIDER**

1. Do you think regulating archaeology is a good idea?
2. Do you think the regulations are fair, or should they be changed? Should there be fewer regulations? Should there be more regulations?
3. Becoming an archaeologist means that you need an Undergraduate and a Masters degree, amounting to about six years in university. Do you think it is worth it to be able to be an archaeologist?

**LIST OF  
TERMS**

<b>archaeological excavation</b>	<b>Archaeological Impact Assessments</b>	<b>Archaeological Regulator</b>
<b>archaeological testing</b>	<b>artifact assemblages</b>	<b>break ground documenting</b>
<b>cultural resource management</b>	<b>cultural resources</b>	
<b>high potential</b>	<b>impacted</b>	<b>log</b>
<b>looters</b>	<b>low potential</b>	<b>medium potential</b>
<b>monitoring</b>	<b>project footprint</b>	<b>salvage archaeology</b>

*Discussion 2: Cultural Resource Management*

Most archaeology that is done now is Cultural Resource Management, or CRM. This work involves assessing an area when development threatens any cultural resources that may exist below the surface. Some of the largest sites in the Maritimes have been discovered this way.

Unfortunately, the archaeological projects that are led by CRM often need to be done quickly. This means that the project may have to go faster than is ideal. While the government is there to oversee these projects and make sure that they are done properly and all steps are taken to protect resources, the need to finish projects quickly sometimes means compromises must be made. Compared with CRM, academic archaeologists often find a site through investigation of an area or an archaeological question, and so typically academics go slower and record context in much more detail. CRM usually does not record context as carefully, often uses shovel-shining instead of trowel excavation, and sometimes ends before all resources have been retrieved if the resources are deemed non-essential.

**THINGS TO  
CONSIDER**

1. Do you think that CRM work should operate at the same level as academic work?
2. What would happen if CRM did not exist? How would archaeological resources be protected (if at all)?
3. Academic archaeologists typically spend a small amount of their time in the field and the rest of their time teaching, doing lab work, and researching. CRM archaeologists typically spend half their time in the field and half writing reports and cataloguing artifacts. CRM archaeologists work on more sites, but academics usually work on larger, more interesting sites. Would you prefer to do CRM work or academic work?

**FIELD WORK**

**LIST OF  
TERMS**

<b>academic archaeology</b>	<b>archaeological excavation</b>	<b>Archaeological Impact Assessment</b>
<b>archaeological testing</b>	<b>cultural resource management</b>	<b>cultural resources</b>
<b>documenting</b>	<b>high potential</b>	<b>impacted</b>
<b>log</b>	<b>low potential</b>	<b>medium potential</b>
<b>monitoring</b>	<b>north arrow</b>	<b>pedestrian survey</b>
<b>potential</b>	<b>salvage archaeology</b>	<b>scale</b>
<b>screened</b>	<b>test pit</b>	<b>test-pitting</b>
<b>trowel</b>	<b>unit</b>	<b>walkover survey</b>

*Discussion 3: AIAs and Development*

Archaeology is most often conducted when development threatens cultural resources. Because of this, archaeologists are often paid by large industries like oil companies and mine developers to test in an area as part of a larger Environmental Impact Assessment (or EIA) that includes impact to sensitive environments like wetlands. Particularly when an important site has been found, or when the AIA takes place in a beautiful and/or sacred place, archaeologists can feel conflicted about removing artifacts so the area can become a giant open pit or a refinery.

**THINGS TO  
CONSIDER**

1. How do you feel about archaeologists helping large companies that will eventually develop and/or destroy much of the area?
2. Currently, companies must change their location if a burial is found within the project footprint or they must come up with a plan to protect the burial. Do you think there should be any other conditions that require companies to change their plans?

**LIST OF  
TERMS**

<b>Archaeological Impact Assessment</b>	<b>Archaeological Regulator</b>	<b>archaeological testing</b>
<b>break ground</b>	<b>cultural resource management</b>	<b>cultural resources</b>
<b>impacted</b>	<b>monitoring</b>	<b>pedestrian survey</b>
<b>potential</b>	<b>project footprint</b>	<b>salvage archaeology</b>
<b>sterile</b>	<b>test pit</b>	<b>test-pitting</b>
<b>walkover survey</b>		

## Activity 1

## Individual Project: Archaeological Survey

## LAND LEARNING

*Approximate time: 1 week*

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**GOALS**

In this exercise, you will choose a place and imagine that a large building will be built there. You will survey the area around it and develop recommendations for how archaeological resources will be assessed and, if necessary, protected.

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**MATERIALS /  
RESOURCES  
(STUDENT)**

For this activity, you will need:

- A smart phone (optional) or a map of the area
- A note book
- A pencil with an eraser
- A compass (some smart phones have this built in)
- A camera
- A sheet of paper (for drawing your finished map) (can be graph paper if so desired)

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**INSTRUCTIONS**

*Pick an area.* Choose an area where you will be able to spend some time walking around. Close to home is a good idea, but you could also choose a park you can get to, a camp where you might be able to visit, or a friend's or relative's house. Somewhere close to a river would be ideal, but you can also pick somewhere in a city or another kind of landscape; just try to pick somewhere you can wander around without drawing too much attention. For instance, wandering around an active construction sight might cause someone to ask you to leave.

Imagine that a large building is being planned and requires an archaeologist to conduct an AIA (archaeological impact assessment). The project footprint (the area that will be affected) is about 700 m by about 350 m and the finished product will look somewhat like the building and grounds shown in the map below. In order to be safe, you should assess an area a bit larger than the planned footprint. After you have assessed the area, you must make recommendations for the next steps.

*Mapping and tracking preparation.* If you have access to a smart phone, download the application called Canada Topo or something similar. If you have something on your phone already that uses GPS (Global Positioning System) to track your path and mark spots that you are comfortable with, feel free to use that. If you do not have

## FIELD WORK

access to a smart phone or can't download an application, you can draw a map of the area and mark where you walked on the map as you go. In both cases, it may help you to look up the area on Google Earth or Google Maps beforehand. You can use this map to roughly lay out what the area looks like, including any water bodies, land marks, buildings, woods, roads, and so on.



The methodology (the way you decide to assess the area) you choose will depend on the area. If you have an open field or not too densely wooded area, you could walk transects 10 m apart. If there are parts that are too steep to walk on, you might want to divide the area up into sections and find a way to cover most of the area, either through transects or walking along edges (such as cliff edges or water edges). If the area is a city with many buildings, walk along all the streets within the project footprint.

*Measure your stride.* Ask your teacher or your principal how long your school is (outside) and then walk, using your regular speed and stride length, from one end to the other. Count your strides as you do this. Once you have reached the other side, record the number of strides. Divide the number by the number of meters of the school, and round to two decimal places. This is how long your stride is in meters.

$$\text{Stride length} = \frac{\text{Number of strides}}{\text{Length of school (in meters)}}$$

Remember your stride length number. When you are out doing your survey and you are measuring a distance, count the number of strides as you walk the entire distance.



## FIELD WORK

Assuming you don't have any very rough ground to go over, do the following calculation to figure out how far you have gone:

$$\text{Distance walked} = \text{Number of strides} \times \text{Stride length}$$

*Survey.* Once you are ready to begin your survey, turn on tracking on your Canada Topo application and get out your paper or note book to begin marking your progress and keeping notes. Walk in whatever methodology you have chosen. Mark anything with a way point that looks interesting or important. You will need to make a note of the following areas:

High Potential. These areas will need to be tested with a 5 m grid. High potential includes any of the following:

1. Areas within 50 m of a water body (including streams, ponds, and marshes).
2. Areas within 100 m of a confluence of two rivers
3. Areas within 200 m of an archaeology site. If you know of an archaeological site, such as the Fortress of Louisburg or the Citadel, place it on your map.
4. Areas within 100 m of a heritage site. If you come across a heritage site, including a protected historic house or a monument, you must make a note about all areas 50 m from this site.
5. Areas within 100 m of finding a pre-European artifact such as a flake.

Medium Potential. These areas need to be tested with a 10 m grid. Medium potential areas include the following:

1. Areas between 50m and 100 m from water bodies.

Low Potential. These areas do not need to be tested and no further work needs to be done in these areas. Medium potential areas include the following areas:

1. Any area with no water body within 120 m, no archaeological sites within 200 m, and no heritage site within 100 m.

Once you have completed your survey, make sure you offer thanks for the land that you walked on and observed. You may do this by offering a bit of food or some tobacco (as long as you have permission to do so from your guardian or teacher) or whatever feels appropriate to you. You can also offer a prayer or a moment of your time.

Once you have finished your survey, you must write a three-page report on what you have found. Your report will have to include:

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## REQUIREMENTS

## FIELD WORK

- A map of the area, whether a Google Earth map or a map you drew yourself (don't forget to include a north arrow and a scale)
- A track of your progress (ask for help from your teacher or a relative to get the track off the phone and onto a computer, where it can be printed)
- A description of the area
- A description of how you did your survey (your methodology)
- A description of what you found
- A summary of what kinds of areas contain which levels of potential (this might be very short or very long, depending on what you found. For instance, if the whole area is low-potential, your conclusion will consist of basically one sentence.)
- A map showing areas of high, medium, and low potential
- Recommendations for the next steps required before breaking ground can begin.

Along with your report, pass in your notebook, your map that you drew, and any other notes you took. Also pass in at least one photo of the area.

## Activity 2

## Apprenticeship Project: Working with an Archaeologist

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**KNOWLEDGE KEEPERS**


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*Approximate time: 3 weeks including written report*

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**GOALS**


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In this project, students will work with an archaeologist in the lab or in the field to learn about the practices of archaeological work on a day-to-day basis. At the end, students will write a report about the work they did.

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**MATERIALS /  
RESOURCES  
(STUDENT)**


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Students must find an archaeologist willing to work with them. Teachers can help with this, or students can contact the anthropology department at their local university, a local CRM company (look for “contract archaeologist” in the phonebook or on the internet), or the local government archaeology office. Students will be expected to provide some resources (such as their own lunch or protective clothing) but will most likely be given the equipment needed to help an archaeologist with their work. Students will also need to find transportation to and from the work place.

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**INSTRUCTIONS**


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The things archaeologists discover are exciting and important to understanding the past. Yet the discoveries archaeologists make often happen after years of work that is physically hard, mentally tedious, or both. Although archaeological work is very rewarding in a lot of ways, it takes a lot of hard work and time to learn important things about the past.

In this activity, you will approach an archaeologist and ask if you can work with them on what they are doing. You can do some research if you want, finding out what different archaeologists are working on by asking about their work. Make sure that you are up front about looking for an archaeologist to work with.

When you work with an archaeologist, you should expect to do work for them. On an archaeology team (both in the field and in the lab), every person needs to contribute something, or else the work is not getting done while one person helps another person. So, you should expect to learn some skills during your work with the archaeologists and to do the work for them that you are capable of doing.

Aim to work out a time to come and visit at least once a week, for at least half a day. You should see if you can make at least three visits in three weeks. You may have to work out a schedule with other teachers to have the time to go work with an archaeologist. Your teacher can help you do this.

You should try to learn as much as you can from the archaeologist and his/her/their team about the work they are doing and what they are learning. You should keep notes about what you are learning, asking for spellings of terms and names you haven't heard before and writing down information that you may not remember later.

## FIELD WORK

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### REQUIREMENTS

Once you have finished your time with the archaeologist, you must pass in a 2-page report on what you were working on. Try to include the subject matter (site names, artifact types, how large the artifact assemblage is, and so on), what your team was trying to learn about, what had already been learned, and what you learned while you were there. Also talk about any special analysis (such as radiocarbon dating) or techniques for getting more information (such as seed flotation). Give examples that show your point or give some really interesting information. Also remember to talk about what kinds of questions the team has, and what they are doing to answer their questions.

See if the archaeologist will send you any pictures they have about the subject matter you were studying. Include this in your report as you see fit.

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### OPTIONS

This activity can be done as a group activity if the teacher finds an archaeological field project that can accommodate a class-sized volunteer crew.

Another option is to allow students to conduct this portion of their activities during the summer, when archaeology projects hire students to work as field techs. This may be too strenuous for some students, but it may fit well with other students' circumstances and interests. There may also be scope to negotiate a turn for each student on an existing archaeology project during the summer, so that each student spends a week in the field throughout the summer.

Many more options may exist; teachers should consider speaking with archaeologists (academic and contract) to see what kind of options archaeologists may be able to provide.

## Activity 3

## Book Report: Archaeological Impact Assessment Final Report

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**MENTAL POWER**


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*Approximate time: 2 weeks*

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**GOALS**

In this activity, you will review an archaeological report on field work that was conducted and give a summary of what you read. You will try to use the knowledge of field work and how it is done to evaluate what you have read.

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**MATERIALS /  
RESOURCES  
(STUDENTS)**

For this exercise, you will need to read one of the two archaeological reports included in this lesson plan (*Appendix D Recent Archaeological Surveys on the Nashwaak, Big Tracadie and Magaguadavic Rivers* or *Appendix E The Oxbow Site 1984*). You will also need a way of writing an essay, either on a computer or hand-written.

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**INSTRUCTIONS**

Read one of the two reports provided in this lesson plan. After you have read it, write a 10-page book report about the report that explains what it said. In particular, explain what archaeological resources were discovered, what this means for the areas being studied, and how the author (or authors) decided that this is what the evidence shows.

In your report (in no particular order), you will need to discuss the following:

- The name of the archaeologist(s) and the crew size
- The area being studied
- The methodology used by the archaeology team (in other words, how did they accomplish the archaeological work and what methods did they choose)
- The time period or periods that the archaeologist(s) found evidence for
- What activities were revealed by the evidence
- What the evidence was for time periods, cultures, and activities
- Anything special, unusual, or interesting about the work or the evidence
- Any discoveries
- Whether the author(s) used appropriate methods and what you think of their interpretations
- What the author(s) concluded about the area(s) being studied
- Whether you would have done anything differently

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**REQUIREMENTS**

Write your book report using the basic organization of introduction, overview of the report, a discussion of what the report is saying, and an evaluation and conclusion. Remember to cite the report (and any other work you refer to) in a References section at the end.