

HOW (AND WHY) WE DO ARCHAEOLOGY

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 4

Seeing and Knowing in Archaeology

HOW TO USE THIS LESSON PLAN

A Lesson Plan by Cora Woolsey and Patsy McKinney

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

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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.

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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Seeing and Knowing in Archaeology

HOW TO USE THIS LESSON PLAN

Overview

Lesson timeframe	<p>Discussions: three 50-min periods.</p> <p>Activities: 1 50-min period for presentation; 1 half-day for field trip; suggested.</p> <p>Class work: 4 50-minute periods for working on projects or reading.</p> <p>Total: three weeks or nine 50-minute periods</p>
Materials	Two work spaces that can be used concurrently; help from another teacher or teaching assistant; materials for two activities of the teacher's choice. The teacher may also have to assist in finding an Elder or Knowledge Keep for students if they are unable to recruit one on their own for an apprenticeship project. Other materials provided by the students (see Appendix B).
Learning objectives	To help students learn how to reason scientifically and how to learn from Knowledge Keepers and Elders, as well as how to bring these two knowledge systems together.
Learning outcomes	Students will be able to talk about what is good and bad science, understand how scientific conclusions were arrived at, give information about something they studied, take notes that will help them better understand the phenomenon they are studying, and learn from people who have knowledge about what they are studying. Students will further be able to understand the value of TK to developing knowledge and will have a sense of how to share knowledge.

Welcome to the Indigenous archaeological record! This lesson plan is one part of a series on archaeology in the Maritime Provinces. The lessons are meant to be used successively but can be used individually as well. They are designed to be flexible and to give lots of resources to accommodate many different classroom situations, capabilities, resources, and student mixes. Timeframes, materials, and so on are meant only as guidelines; extend or shorten as necessary or as circumstances will allow.

Teaching archaeology requires an understanding of the many aspects of archaeology, which can be hard to get a handle on. This is because it is both a science and an art and both a technical and an intellectual discipline.

One of the most common barriers I have found to teaching archaeology is the preconception most people have about what archaeology is, what we do in archaeology, and how we know what we know. Our intention in developing the lesson plan is to give the teacher enough information and resources to teach the students how to think like an archaeologist.

Because most people have not necessarily had the opportunity to learn the complex practice of archaeology, we have developed some reading material that will give a good understanding of archaeological practice (see Appendix A). This reading material can be distributed to students if appropriate; it can be used as a text book or as reference material as needed. However, it may not be appropriate in the following circumstances:

1. **Lack of time.** Each lesson's reading is meant to be covered over at least three classes. If the class meets only once a week, for instance, the reading materials will not be adequately digested during discussions or other activities and should therefore only act as guidance for teachers in leading discussions and activities.
2. **Low reading level.** The Flesch-Kincaid reading level of the reading material is approximately grade 11, which may be too difficult for some classes, such as Grade 6 or higher grades with special needs.

However, low reading level is not necessarily a barrier, depending on how the teacher evaluates the capabilities of the class, particularly their engagement with the subject matter.

If the reading material is not deemed appropriate for students to read themselves, then it should be used as inspiration and background knowledge for the teacher in leading discussions and activities. Each lesson is accompanied by a set of activities and ideas for discussion (see Appendix B)

Learning Objectives and Outcomes

Each lesson is accompanied by a set of discussion ideas and exercises. The discussion ideas are suggestions for getting students interested in sharing their stories. They can easily be adapted to a range of environments, grades, student composition, and class lengths, and during the discussions, subjects from the reading material can be brought in as appropriate. The goal is to get students interested; if they cannot take in all the nuances of the scientific method, for instance, they can still benefit from a discussion of how science works and what kinds of things they have observed in their own lives. It is up to teachers to decide which parts of each lesson can be incorporated in to the class structure.

A set of tools has been provided in this document to help teachers get the most out of the lessons plans. Lessons are designed to introduce students to archaeology by introducing concepts, encouraging retention of those concepts by discussing them, observing real-world phenomena that illustrate those concepts, and applying them in activities. Discussions deal mainly with retention, comprehension, and valuing the concepts, while activities deal mainly with applying, analyzing, and creating using the concepts. Learning objectives and outcomes are listed in each discussion and activity. For discussions, a list of concepts have been provided. For activities, a list of materials needed (one for students and one for teachers), expected timeframe, and options are given (again, subject to what the teacher deems appropriate and possible given the circumstances).

A Note about the Ethics of Archaeology

The discipline of archaeology has some challenges that anyone teaching the subject needs to be aware of. These challenges consist mainly in that the archaeological record needs to be treated with respect and any act of disrespecting the archaeological record is illegal and unethical. As you will see repeated in these lesson plans, the value of artifacts is in the information they can give us about the past, which comes mostly from the context in which they are found, and in the connection they give us with our ancestors and the First Peoples of this land. As such, removing artifacts from where they were found has to be done for very good reasons only and under the direction of an archaeologist with a permit to study or conserve the area where the artifact was found. If an artifact or heritage object is removed from its context, this act is considered looting, an illegal act that can be prosecuted by the provincial authority that regulates archaeological practice.

Because of these restrictions on activities having to do with the archaeological record, teaching archaeology with a hands-on component can be challenging. Teachers must find ways to illustrate the principles of archaeology and give students a chance to learn skills that will ready them for archaeology without encouraging students to do anything illegal or unethical. Teachers further have a moral obligation to instil in students a respect for the archaeological record and for the provincial regulations concerning the archaeological record. Teachers may opt to teach the theoretical aspects of archaeology only, which is a good option where students have a hard time completing assignments because of their circumstances or where a teacher does not feel comfortable teaching the ethics of the archaeological record. However, if a hands-on component is desired, consider trying out the suggested activities, which touch on subject matter in each lesson plan but do not encourage students to do anything illegal or unethical.

The following is an excerpt from *Lesson Plan 1: What Is Archaeology?* that deals with the legal and ethical issues of archaeology.



Ethical Practice in Archaeology

Artifacts are exciting and often very beautiful, and so it is only natural to want to find artifacts. However, artifacts need to be treated with respect because they represent very specific knowledge about the past (sometimes the only knowledge we have) and also because they were important to the people who lived before and therefore they are important to the descendants of those people. Artifacts are the legacy left for us and they cannot be treated as regular objects. If you find an artifact or an archaeological site, **do not remove it from its location**. Inform the regulatory body in your province.

Here are the regulatory bodies in each province:

NB: Manager – Regulatory Unit Archaeology and Heritage Branch	NS: Nova Scotia Curator (Dr. Katie Cottreau- Robins) (902) 424-6461	PEI: Director of Indigenous Relations and Archaeology (Dr. Helen Kristmanson) (902) 368-5378
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Each province has an act governing the treatment of artifacts and heritage. New Brunswick's act is called the **Heritage Conservation Act**, passed in 2010, and can be found here: <http://laws.gnb.ca/en/ShowPdf/cs/H-4.05.pdf>. Nova Scotia's act is the **Special Places Protection Act**, passed in 1980, and can be found here: <https://nslegislature.ca/sites/default/files/legc/statutes/specplac.htm>. Prince Edward Island's act is the **Archaeology Act**, updated in 2015, and can be found here: <https://www.princeedwardisland.ca/sites/default/files/legislation/A-17-1-Archaeology%20Act.pdf>. All three acts state that artifacts and sites are protected and are not to be investigated except by archaeologists or people working under the direction of archaeologists. Keep in mind that this applies to both currently known and currently unknown sites and artifacts.

There are some important guidelines for what is, and what is not, ethical treatment of artifacts and the archaeological record. They are:

1. **Never dig for artifacts**, even if you are using archaeological excavation techniques. Excavation (or any form of digging) destroys the context artifacts are in, so all the information attached to the artifact and significance of the site is lost during this process. Therefore, not even archaeologists are allowed to dig unless they have applied for a permit from the government and have been approved.

Recording the site properly as excavation is carried out is only part of what needs to be done to protect the information and significance; another very important part is consulting with the people who have expertise and interest in the heritage of the province about whether digging is appropriate. Sometimes the answer is no, and archaeologists must abide by not only the decision of the government but also of the Indigenous bodies set up to oversee archaeology of pre-European sites. A third very important part of archaeological breaking ground is passing in a report at the end of the work, so that the site can be reconstructed, the artifacts can be properly understood and studied, and the findings are available for everyone. This is a lot of work, but no archaeology should ever be undertaken if the archaeologist feels they may not be able to do all this work, which is crucial to proper documentation.

Only under the direction of an archaeologist should you ever break the ground in pursuit of archaeological knowledge or cultural resources.

2. **If you find an artifact, you must notify the regulatory body of the province where it was found.** By law, artifacts in the Maritime Provinces are under the jurisdiction and protection of the Crown, which means each province provides stewardship for the province's heritage in trust for the people of that province. If you find an artifact, you are required to leave it in place and inform the provincial Regulator or Curator.

SEEING AND KNOWING

Try to keep track of where you found it and take pictures. A GPS location is very helpful, which most phones can give you. If you find more than one artifact, it is especially important that you leave it in place as you may have discovered an important site and the artifacts' positions are crucial to understanding that site.

If a **private collection** of artifacts existed before legislation protecting heritage was introduced in New Brunswick and Nova Scotia, it is not necessary to hand it over, but in Prince Edward Island, all collections are under the jurisdiction of the Crown. A private collection is an artifact collection that is in the care of a private citizen (not a government, academic, or professional archaeologist). However, you are expected to give access to the provincial regulators and to treat the artifacts respectfully, neither selling nor destroying them in any way. This means that, if you are unable to take care of them properly, you should donate them to an institution that can look after them, such as a museum or a university, or hand them over to the government. In New Brunswick, the Heritage Conservation Act was passed in 2010. In Nova Scotia, the Special Places Protection Act was passed in 1980, and in PEI, the Archaeology Act was passed in 2015. Collections that existed before these times in New Brunswick and Nova Scotia will not be seized under normal conditions, but mishandling of these artifacts is still illegal and will result in fines and/or seizure if prosecuted. In Prince Edward Island, all collections are subject to seizure and/or fines.

3. **Never buy artifacts.** Artifacts are irreplaceable and represent the heritage of our region and our people. They are not commodities. If you buy an artifact, even if you mean to take care of it respectfully or return it to its rightful place, you will give artifact sellers an incentive to continue to dig for artifacts and to sell what they find. Digging for artifacts with the intention of selling or collecting them is called **looting**.
4. **Don't go looking for archaeological sites.** The best way to protect cultural resources is by leaving them in the ground. Except in some very specific cases, the biggest threat to sites is usually when people start poking around them. Also, if you know where an archaeological site is, don't tell other people the location; this can result in people poking around or even digging who may not understand the importance of context and ethical treatment of the archaeological record.
5. **If you encounter human remains, whether they are modern or ancient, you must leave them where they are and contact the RCMP, the Coroner, and the Archaeological Regulator or Curator immediately.** The RCMP will notify a forensic anthropologist and consult with an archaeologist as necessary. The Coroner will decide what to do with the human remains if modern. The archaeological authority will determine the ancestry of the human remains and decide how best to lay the remains to rest, whether by handing them over to a First Nation for repatriation (if of Indigenous descent) or other respectful disposal as appropriate. It is very important in this situation that you not move anything, including any of the things around where you found the human remains. If you find human remains, you may have discovered a crime scene, in which case the position of everything around the human remains is important in understanding what happened, even if the human remains have already been disturbed. Or, you have discovered a burial, and in the Maritime Provinces, we have a strict moratorium on digging or disturbing burials. In both cases, exposed human remains will be dealt

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with respectfully and appropriately once the RCMP are notified. Remember that **interfering with human remains is illegal according to Section 182(b) of the Criminal Code of Canada and can result in a prison sentence.**

In Nova Scotia, the Assembly of Nova Scotia Mi'kmaw Chiefs have a protocol for finding human remains of Indigenous ancestry and can be found here: <http://mikmaqrights.com/wp-content/uploads/2014/01/2016-Human-Remains-Protocols-The-Fundamental-Principle.pdf>.

If you are unsure whether what you have found is human remains, contact the RCMP to be sure.

6. **Don't remove objects from known archaeological sites.** These sites are protected and collecting from them is illegal.

Remember that you are able to go and visit the artifact collections that are held by the government. These artifacts are available for people with an interest in archaeology and history and people who want to study the past. This is the best and most ethical way to research the past and feel a connection with the archaeological record.

Discussions

Three discussion ideas can be found in **Appendix B: Lesson Plan 1 Discussion and Exercises**. Each discussion idea is accompanied by a list of terms, a learning outcome, and a set of questions for discussion to help students use the terms in speech.

Each discussion is designed to last for a period or class, but the length and depth of the discussion is up to the teacher. If reading material is given to students, a discussion can be very informal. If the teacher intends to summarize the material, each discussion might start with a small lecture. Discussions can take the form of open-ended questions during the class or as time set aside for discussion.

For each discussion, terms have been suggested to concentrate on. It is suggested that these terms be written on the board and explained at some point and that the teacher help students use the terms properly where possible. Many terms will not be familiar to students, so helping them use the appropriate language will help them remember and receive the subject matter.

Teachers are encouraged to use these discussions as part of students' marks in the form of participation. In particular, students should be marked on willingness to contribute ideas, offer opinions, and ask questions. They should also be encouraged to respect the opinions and ideas of others and listen to what others have to say.

Activities

Activities have been provided (also in Appendix B) that can be used as the teacher deems appropriate. Not every activity needs to be done in order to learn, particularly if time is short or resources are insufficient.

SEEING AND KNOWING

Suggestions have been made for locating activities on the land, out in the community, or in the classroom, but as with discussions and reading material, location is optional and should be adapted as necessary.

Some activities are meant to be read only by the teacher, while some can be given to students to read and complete. It is recommended that teachers read carefully through each activity and cut-and-paste the descriptions for students into a Word document or a template the teacher likes to work with, to be distributed to students. In each activity, the requirements for the assignment are given, but teachers may wish to modify these requirements.

Options

Options have been provided in many lessons depending on the circumstances of the class (e.g., age group, class length, number of students) but in all cases, exercise descriptions are suggestions only and the activities should be adapted to what is feasible and optimal in each situation. For example, marking can be discarded entirely, or written assignments can be replaced with class discussions or presentations.

Marking Rubric

The discussion ideas and activities leave a lot of room for arranging as the teacher sees fit. It is recommended that marking be adjusted to the needs of the class. Participation should make up a large portion of the mark. This is because the concepts presented in this class are challenging, and asking students to digest them and go on to do quality work may be too much to ask from some groups; instead, participation may be a better way to create buy-in from learners.

For some activities, marking may not be appropriate or constructive, and students should be allowed to follow instructions as they see fit given their spiritual beliefs, family circumstances, and access to resources. This includes not doing the activity at all. Therefore, it may be a good idea to give students the option of several suggested activities.

Below are learning objectives, learning outcomes, and suggestions for marking each activity.

Activity 1: Individual Project: Footprints

Approximate time: 1 week

LEARNING OBJECTIVES

Students will collect data toward identifying species by their paw prints; they will use data, research, and the reasoning process to come to a conclusion.

LEARNING OUTCOMES

Students will understand the process of gathering and recording data and selecting measurements and observation types that help with identification. They will get better at applying the reasoning process to solve problems about real-world phenomena.

SEEING AND KNOWING

Category	Mark	Requirement	Considerations
Notes	30%	5 track names with at least 5 types of measurements or observations each	Main marks should be given for having five tracks (2% per track) and five observations (2% per observation category) for a total of 20% top marks; more marks can be given for coherence of the notes, completeness of data (nor reasons why data is missing), and excellence of measurements (how important they are to figuring out what the track is).
Research on tracks	30%	Evidence of research (asking people, consulting the internet or books)	Main marks should be given for showing research was done; additional marks for excellence of research (relevance of sources) and comparing research for a better conclusion.
Written conclusions	40%	1/2 page conclusion on each track	Main marks for good writing and reasoning process; additional marks for excellent reasoning and bringing in all sources of information.

Activity 2: Class Project: Traces of Activities

Approximate time: 50 minutes + 1 week for written report

LEARNING OBJECTIVES

Students will learn how to develop ideas about what happened in the past by looking at clues in the things left behind or rearranged by people doing activities.

LEARNING OUTCOMES

Students will be able to use clues and evidence to reconstruct what happened in the past.

Category	Mark	Requirement	Considerations
Participation in activity	40%	Work on making an object alongside the rest of the class	The object does not need to be completed. Main marks for participating and using the materials and tools provided. Additional marks for showing an interest in the traces the activity will leave.
Written report	60%	Write a written report on what happened	Main marks should be given for clearly demonstrating having observed the whole workspace (e.g., drawings and images, written reference to recorded observations, and so on); additional marks should be given for excellent reasoning.

Apprenticeship Project: Traditional Medicine

Approximate time: 3 weeks (2 weeks for learning and research, 1 week to write the report)

LEARNING OBJECTIVES

Students will learn traditional healing and plant use from an Elder; they will gain experience in learning from others and applying that knowledge to scientific research; they will learn to take scientific notes and use the notes for writing a report.

LEARNING OUTCOMES

Students will gain an understanding of how TK is passed on. They will also gain respect for the knowledge held by Knowledge Keepers and Elders. Finally, they will develop an understanding of how to take notes effectively towards studying a phenomenon.

Category	Mark	Requirement	Considerations
Finding an Elder or Knowledge Keeper	20%	Find one person to learn from and spend time with	Full marks awarded for having found a teacher.
Drawings and notes	30%	Notes taken during the apprenticeship	Main marks should be given for simply having taken notes (20%) with additional marks according to how detailed, legible, and relevant the notes are.
Writing the report	50%	Written report at least 2 pages long	Main marks for using data collected and demonstrating research about the plants (25%). Additional marks for each question answered (see list of questions in the Ideas and Activities document) and for excellent writing and reasoning.

Additional Resources

Glimpses of Atlantic Canada's Past

This online resource by Dr. David Keenlyside summarizes the history of Atlantic Canada in an easy-to-digest format. It is a bit long, but you can search it if you are looking for something in particular. It can be found here:

<https://www.historymuseum.ca/learn/research/resources-for-scholars/essays/glimpses-of-atlantic-canadas-past/>

Mike Deal's Lecture Notes

This set of incredibly thorough lecture notes from Memorial University's Dr. Mike Deal is more in-depth and is divided up by period. This resource will give you background on specific sites and authors who have worked here, and will go into more detail about subjects such as artifact types and sources of evidence.

Week 1: Archaeological Methods

<http://www.ucs.mun.ca/~mdeal/Anth3291/notes1a.htm>

Week 2: The first people

<http://www.ucs.mun.ca/~mdeal/Anth3291/notes2.htm>

Week 3: The Early and Middle Archaic Period

<http://www.ucs.mun.ca/~mdeal/Anth3291/notes3.htm>

Week 4: The Late Archaic Period

<http://www.ucs.mun.ca/~mdeal/Anth3291/notes4.htm>

Week 5: The Late Archaic Continued

<http://www.ucs.mun.ca/%7Emdeal/Anth3291/notes5.htm>

Week 6: Transition to the Woodland Period

<http://www.ucs.mun.ca/%7Emdeal/Anth3291/notes6.htm>

Week 7: Early Woodland

<http://www.ucs.mun.ca/%7Emdeal/Anth3291/notes7.htm>

Week 8: Middle and Late Woodland

<http://www.ucs.mun.ca/%7Emdeal/Anth3291/notes8.htm>

Week 9: Middle and Late Woodland in the Quoddy Region

<http://www.ucs.mun.ca/%7Emdeal/Anth3291/notes9.htm>

Week 10: Middle and Late Woodland in Eastern NB and PEI

<http://www.ucs.mun.ca/%7Emdeal/Anth3291/notes10.htm>

Week 11: Middle and Late Woodland in NS

<http://www.ucs.mun.ca/%7Emdeal/Anth3291/notes11.htm>

Week 12: Contact Period

<http://www.ucs.mun.ca/%7Emdeal/Anth3291/notes11.htm>

British Archaeological Jobs and Resources

This page gives some good guides on specific subjects and methods in archaeology, that are pretty general (in other words, they can be used anywhere).

http://www.bajr.org/BAJRread/BAJRGuides.asp?fbclid=IwAR2you4kdm4zip3cikdpK7mIl_887EeIJro2jirBA6kTUIWgpBTfx2P8ffv

The Society of American Archaeology K-12 Activity Resource Page

This page has a lot of great ideas for activities to do with kids. These activities can be adapted as necessary.

<https://www.saa.org/education-outreach/teaching-archaeology/k-12-activities-resources?fbclid=IwAR1I6isEoLU-AmR0LKOQGWnFMBriNcZJUsSdU3S8qEfvNjrsfwha5lD-lOk>