Kipimâcihowininaw ôta Kitaskînahk (Cree)

Nuhenënë ʔá ʔëtsʼ Elnái (Dëne)

Survival in Our Land

Earl Stobbe

Timber Bay School
Timber Bay, SK, Canada

A unit in the series:

Rekindling Traditions:
Cross-Cultural Science and Technology Units

Series Editor

Glen Aikenhead
University of Saskatchewan
Saskatoon, SK, Canada

CURRICULUM CONNECTION

Grades 6-10: outdoors education, structure & design, science topics by teachable moments

OVERVIEW

Emergency shelters are built by students in the out of doors using two different methods: at first, no tools; and then with tools. The activities offer many teachable moments for students to learn a wide range of content and processes in Aboriginal science and technology and in Western science and technology. The two cultural ways of knowing about the world are addressed and bridged. Duration: about 3 days out of doors, plus about 4 in-class lessons.

FUNDING

The CCSTU project was funded through a partnership with:

Cameco Access Program for Engineering and Science (CAPES)

Northern Lights School Division

Île-à-la-Crosse School Division

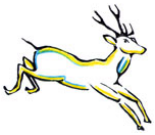
Saskatchewan Education (Northern Division)

Stirling McDowell Foundation

College of Education University of Saskatchewan

REKINDLING TRADITIONS **PROJECT TEAM**

TEACHERS:

Gloria Belcourt	Minahik Waskahigan School, Pinehouse Lake Unit: *Wild Rice*	
Morris Brizinski	Valley View School, Beauval Unit: *Nature's Hidden Gifts*	
David Gold	Rossignol School, Île-à-la-Crosse Unit: *Snowshoes*	
Keith Lemaigre	La Loche Community School, La Loche Unit: *Trapping*	
Shaun Nagy	La Loche Community School, La Loche Unit: *The Night Sky*	
Earl Stobbe	Timber Bay School, Timber Bay Unit: *Survival in Our Land*	

FACILITATOR / COORDINATOR*:*

Glen Aikenhead	College of Education, University of Saskatchewan

ELDERS:

Henry Sanderson	La Ronge
Ann Lafleur	Beauval
Alec Campbell	Beauval

TABLE OF CONTENTS

page

Purpose 1

Goals 2

Objectives 2

Background Information 3

Acknowledgements 7

Lessons

1. Building Emergency Shelters Using No Tools 8
2. Debriefing 11
3. Building a Camp Using Minimum Tools 12
4. Debriefing 17
5. Overview & Student Assessment 18

Appendix Photo Tour of a Survival Camp

PURPOSE

This unit is designed to enrich students' understanding and appreciation of Aboriginal science and technology, and to encourage students to continue their studies in school science in the future. Building emergency shelters will strengthen students' own Aboriginal cultural identities, will motivate students toward success in all school subjects, and will demonstrate to them that they can achieve at Western science without setting aside their Aboriginal values. This unit is only one of many school activities (e.g. Small School Games, Regina field trip, fund raising activities) that serve to teach students a tradition of living and working together as a team (how to do things cooperatively and in a self-sufficient manner).

These activities involve parents to an increasing degree in order to contribute to parents' life-long learning at the same time as their children are learning the same habits of working with others as a team. By getting out of the classroom, the teacher can shed the role of expert, and instead, model the role of a learner – listening and observing to find out local norms, values, and skills. The teacher has the opportunity to listen and learn from parents and students.

GOALS

1. To bridge students' perceived gap between the world of school knowledge and the world of everyday (Aboriginal) knowledge, by involving students in challenging authentic activities in which students need to use the language from both worlds.
2. To involve students in the out of doors.
3. To engender a sense of community among the students, a sense that will endure through life.
4. To promote a sense of ownership in what students do, and to augment students' self-esteem.
5. To reduce the number of "couch potatoes" among the student body.
6. To provide the teacher with a wealth of shared experiences that will serve as points of reference in many future lessons (in other units).
7. To get students to interact with their environment and their community.
8. To introduce students to career possibilities related to science and engineering.

OBJECTIVES

1. Students will experience the need for tools in meeting basic needs, and will recognize this as a basic human need.
2. Students will solve problems when using their natural environment (when surviving in our land).
3. Students will engage in activities that facilitate the sharing of knowledge, skills, and history.
4. Students will practise measuring.
5. Students will learn a safe and proper way to build a fire.
6. Students will use their knowledge and skills acquired from earlier out-of-door activities, as well as use ones learned in this unit confidently in future out-of-door activities.

BACKGROUND INFORMATION

By many measures it would appear that school science does not seem to mix well with Aboriginal culture. Many northerners, especially those living with the land, seem to see their own culture and "schooling" as two separate things. This view should not be surprising. People had to leave their community to get an education. Even now school is designated as the place students attend from nine o'clock to three-thirty. When sitting in a school science classroom, students envision the world (their real world) beyond the four walls of their classroom. However, students are often expected to write an academic test using words they have never personally experienced. These tests are the basis by which students are evaluated.

Yet for generations, Aboriginal peoples have been using ingenuity and problem-solving skills to survive in the land with only the resources they find at hand. This knowledge, this Aboriginal science and technology, has its own concepts and principles. Aboriginal youth still learn by instruction and demonstration from older people, followed by practice until the standards of the community are met.

The perceived separation between students' real world and the world of Western science can be bridged by understanding the words used to describe an experience shared by both worlds. The way to better understand the two worlds (and be comfortable in both) is to share an experience and discuss it using words from both cultures; that is, listen respectfully to "how we say it, or do it, around here" and to "the scientific description." Students who can understand something, do things, and then describe it, should have no trouble passing on information and skills to their children. Some students will still have trouble with written formal tests, but many well do better.

This unit allows students to get out of the classroom and experience life by building emergency shelters. The students practise co-operation and real-life problem-solving skills. You will share this experience with your students. The experience becomes the basis for future discussions back in the classroom where follow-up lessons occur, and for future out-of-door experiences (e.g. Small School Games, Regina field trip, fund-raising activities, and community events). An accumulation of out-of-door activities will establish a tradition of how to live and work together as a team, a tradition for the school, for students, and perhaps for their families.

Shelters are of interest to everyone. People living with the land build them all the time. When students build them, the activity can invite a discussion on local history and stories of survival.

Hopefully you can get an Elder or parent to come out with you. Students can also discuss their experiences with people at home. You will probably find that many of the students already have very good skills. The shelter they build will allow you to value local knowledge and skills (Aboriginal science and technology). You can then show them they already know from their own perspective what books are trying to teach from a Western science perspective. Discussion helps clarify the experience and helps students learn about the similarities and differences between Aboriginal and Western scientific knowledge.

Other teachers at your school unfamiliar with out-of-doors education will at first feel uncomfortable, but as traditions you establish become embraced more strongly by the students and the community, these teachers will likely be willing participants.

A survival camp located very close to your school (on, or adjacent to, the school grounds) will serve as an outdoor classroom. Because it is visibly part of the community, parents will be more encouraged to join the activities that may happen unexpectedly (serendipity) in the evening; such as preparing bannock on a stick and tea. Sleepovers may happen, as well.

Learning

It is expected that students will try things on their own rather than be told. (Many students at this age "know everything" anyway, so they tend not to listen even when you tell them.) Thus in this unit, students learn by doing, by learning the consequence of their actions, by seeking help, and by practising. Telling students will work only when they seek your help, so teachers need to be clever at setting up situations where there is a *need to know* what you what students to learn. Often this takes planning and patience on the part of the teacher; for instance, planning for moments and waiting for the moment when students seek your help. Therefore, this type of teaching may look spontaneous, but that is an illusion. The teaching is serendipitous – teachable moments are recognized by the knowledgeable teacher.

Administrative Points

Of course the unit will have to be modified to meet your local situation. Time might be a challenge for you. If you only have forty-minute periods to work with, it makes things much more difficult because you will need at least a half day for each shelter built. You might want to keep your

unit really focused and simple, or you may want to tie it in with all sorts of other school content and objectives. For example, you could camp by your shelters and tell (and record) stories, and you could stuff your faces with delicacies such as smoked fish.

It is a good idea to run your ideas by the local board – they can give you advice on where you can go and the names of people who can help. They probably will have safety concerns. The more you can involve the parents and community the better. You might be able to tie the unit in with local and natural cycles such as berry picking or fish camps. The structures students build can be anything from drying racks, sweat lodges, or outhouses. Just build something.

Assessment of Students

Assessment will comprise on-going feedback to students and teacher (formative assessment) throughout the unit, but will also involve culminating activities for students to demonstrate the degree to which they followed and practised the standards you expect to be met. All assessments will address practice and theory.

Practical considerations:	Participation, co-operation, and demonstrated use of main concepts and skills (such as measurement). This assessment will be based on your observations of groups at work, informal questioning, and student self-evaluation. Check lists and/or rubrics you compose will be helpful.
Theoretical considerations:	Check sketches for measurement accuracy and scale. Formal test on concepts and terms you have been emphasising. Students write a story about their shelter. Their shelter could be a part of a local story, based on how you set the scene in your introduction.

Make sure students know what you will be looking for so they can participate in their own assessment to an appropriate degree.

Resources

For students:

D. O. Hyde. (1975). *Strange Companion*. New York: Scholastic Books.
F. Mowat. (1979). *Lost in the Barrens.* Toronto: McClelland & Steward.
J. Tetso (1970). *Trapping is My Life.* Toronto: Stoddart. ISBN 0-7737-5705-8
L. B. Woodward. (1984). *Kidnapped in the Yukon.* Nelson Novels.

The following books, videos, and films are available from Pahkisimon Nuye-Ah Library System, La Ronge. Telephone 306-425-4525; FAX 306-425-4572.

(Each entry has 3 parts: Name, Title, Call Number.)

Books:

Ahenakew, Beth. *Stories of Wesakechak: Cree legends*. 398.2 Ahe
Ahenakew, Edward. *Voices of the Plains Cree*. 398.208 Ahe
Angier, Bradford. *Wilderness gear you can make yourself.* 796.5 Ang
Basic essentials of knots for the outdoors. 623.888
Beard, Daniel Carter. *Shelters, shacks, and shanties*. 690.87 Bea
Bloomfield, Leonard. *Sacred stories of the Sweet Grass Cree*. 98.208
Caduta, Michael J. *Keepers of the night*. Tc 398.208
Charles, Norman S. Ratt, James. *My grandmother and the Wihtiko*. SLM 398.208 Cha
Churchill, James E. *The basic essentials of survival.* 613.69 Chu
Dickson, Lovat. *Wilderness man: the strange story of Grey Owl.* 639.9092 Gre Dic
Eckert, Allan W. *Incident at Hawk's Hill*. J J Eck.
Education in the outdoors: Activities for Northern Saskatchewan students and action activities for curriculum integration, divisions I, II, III. SLM 372.3 Edc c.03
Fear, Gene. *Surviving the unexpected wilderness emergency*. 613.69.
Forgey, William W. *The basic essentials of first aid for the outdoors.* 616.025 For
Foster, Steven. *The book of the vision quest: Personal transformation in the wilderness.* 291.38 Fos
Friedman, Judi. *Noises in the woods*. 591.5 Fri
George, Jean Craighead. *Julie of the wolves*. J J Geo/ P-CS Geo
George, Jean Craighead. *Julie's wolf pack*. P-CS Geo c 01
Gipson, Fred. *Old Yeller*. J J Gip
Henley, Thom. *Rediscovery: ancient pathways, new directions: outdoor activities based on native traditions*. SLM 371.384 Hen.
Houston, James. *Tikta'liktak: An Eskimo legend*. 398.2 Hou
Huntington, Lee Pennock. *Simple shelters*. 720.9 Hun
Jacobson, Cliff. *The basic essentials of knots for the outdoors*. 623.888 Jac
Jacobson, Cliff. *The basic essentials of map and compass*. 796.51 Jac
Keene, Kahlee. *Wild plant coloring book*. 581.63 Kea
Kinmont, Vikki. *Simple foods for the pack*. 641.578 Kin
Kiskinahamawˆakan-ˆacimowinisa = student stories. 497.3 Kis
Kjelgaard, Jim. *Outlaw Red*. J J Kje
Knap, Jerome J. *The complete outdoorsman's handbook*. 796.5 Kna c. 1
Kochanski, Mors L. *Northern bushcraft*. 796.5 Koc
Laboucance, Red Cloud. *Me yah way neas: A legend of the Woods Cree*. 398.208
Leduc, M. A. *The explorer's guide to boreal forest plants*. 581.9719 Led
Lumi, Marika. *Wolf . . . kill! The wilderness called Shunka*. 599.74442 Lum
Mazer, Harry. *Snow bound*. Ya Ya Maz
Meredith, Don Howard. *Dog runner.* J J Mer c. 01
Merry, Wayne. *The official wilderness first-aid guide.* 616.025 Mer
Miller, W. Wesley. *Blain's Woods.* Lit Mil
Morgan, Sally. *Structures*. 624.1 Mor
Mowat, Farley. *The curse of the Viking grave.* J J Mow
Northern Animals: A Photograph set by Bruce Mcleod. TC Photo Set #5 & #6
O'Dell, Scott. *Island of the Blue Dolphins.* P-CS J Ode c. 14
Out in the wilds: How to look after yourself. 796.5 McP
Paulsen, Gary. *Brian's winter*. P-CS CS Pau c. 01

Paulsen, Gary. *Hatchet*. J Pau Cass
Paulsen, Gary. *The river*. J Pau Cass
Pelly, Linda. *Nanubush and the ducks*. 398.208 Pel c. 02
Pelly, Linda. *Nanabush and the muskrat*. 398.208 Pel c. 01
Politano, Colleen. *Lost in the woods*. 613.69 Pol c. 1
Ratt, Ida; & Ratt, James. *The child Wihtiko.* SLM 398.208 Rat
Ratt, Ida; & Ratt, James. *The huge trout.* SLM 398.208 Rat
Ratt, Isabella Ratt, James. *A hard winter.* SLM 398.208 Rat
Ratt, James; & Roberts, Charles. *Wesuhkechahk the medicine man.* SLM 398.208 Rob
Saskatchewan's endangered spaces: An introduction. 333.782 Sas
Schoonover, Frank Earle. *The edge of the wilderness: A portrait of the Canadian North.* 917.19 Sch
Taylor, Theodore. *The cay.* J Tay Cass
Tilton, Buck. *Rescue from the backcountry.* 613.69
Turner, Nancy J. *Edible wild fruits and nuts of Canada.* 581.632
Turner, Nancy J. *Food plants of interior First Peoples*. 581.632 Tur
Turner, Nancy J. *Wild coffee and tea substitutes of Canada*. 641.877 Tur
Walker, Marilyn. *Harvesting the northern wild: A guide to traditional and contemporary uses of edible forest plants of the Northwest Territories.* 581.632 Wal
Wallis, Velma. *Two old women: An Alaska legend of betrayal, courage, and survival.* SLM 398.208 Wal
Weiss, Harvey. *What holds it together?* 600 Wei
Wiseman, John. *The SAS survival handbook.* 613.69

Videos / Films:
Bengteson, Hans. *Orienteering for sport and pleasure*. NFB 796.42
Berglund, Berndt. *Wilderness survival: A complete handbook and guide for survival in the North American wilds.* NFB 613.69 Ber
Cree Hunters of Mistassini. SLM V V 970.1 Cre
Freschet, Berniece. *Grizzly bear*. NFB Fre
Gifts of shelter and clothing, part 3. V V 745.3 Gif Part 03
How to build an igloo. SLM V V 6934.91 How
Lost in the barrens. V V Los
"Man who chooses the bush." V V 971.00497 Man
Northern wildlife. V V 590 Nor
Sun Bear. *At home in the wilderness.* NFB 796.54 Sun

ACKNOWLEDGEMENT

Taniki! Many thanks to the following people: Jacob LaVallee, local board chair; Caroline LaVallee, Elder, bannock maker; Rose Bradfield, Cree teacher; Redmond Bradfield, resource person and supervisor; Noel Lavallee, resource person and supervisor; and Sidney Bird, resource person.

Lesson 1: *Building Emergency Shelters Using No Tools*

A shelter built with few tools (one year later)

Timing
half day

Goals
1. To establish the out-of-doors site as place to learn.
2. To involve students in the out of doors.
3. To engender a sense of community among the students.
4. To promote a sense of student ownership, and to augment students' self-esteem.
5. To reduce the number of "couch potatoes" among the student body.

Objectives
1. Students will gather materials to use for their shelter.
2. Students will solve problems when using their natural environment (when surviving in our land).
3. Students will take responsibility for caring for their need for water and nutrition.
4. Students will develop their values and skills about co-operating with others.

Aboriginal Value to be Conveyed
humility

Instructional Strategies
experiential

Lesson Outline

1. Set the scene: The students have been transported back in time, or they have had a plane crash. They must build an emergency shelter without any tools. They can only use what they can find in the area – roots for cordage, poles, moss, rocks, etc.
2. Divide students into groups of three to five. The size of the group depends on how well the students work together and how many students you have.
3. Proceed to the site and let students pick the location for their shelters. I don't usually give too much advice at this time. Middle year students are fairly independent. It helps to give them a chance to try their ideas.

   SAFETY TIPS: *Get students to bring water bottles and a snack.*

   Before you start any fires, make sure it won't spread and you know how to put it out. Check for local fire bans.

   Use a whistle to signal students – one whistle means listen, two blasts means come here, three blasts means danger.

   Stay within the bounds of the site. Permission must be granted by the teacher for any student to wonder out of bounds.

4. After they have settled into their locations put up some flagging tape. It will help define the area and you can mark which group's shelter it is.

5. Get students to build a shelter for their group. Give students a chance to show what they know. Some may know what they are talking about, but some may not know as much as they think they know. If you have a local expert with you, they can model a shelter. The students will use these ideas if they need them.

   I usually go around to the sites and make a few notes on what they have tried. These notes will be used in the debriefing lesson that follows. I might measure the length of a support or an angle and ask a few questions about their design. Questions about local ways of doing things and ways of describing things in Cree will focus attention on the community's indigenous knowledge.

   The amount of time you allow students will vary. Sometimes they will spend most of an afternoon trying an idea and then discarding it. You may need a couple of afternoons before they are satisfied. Some groups will be done very quickly. They can add modifications or build other structures that might be needed, such as racks or fire pits.

6. Once the shelters are completed, there are a couple of things you can do. The first is to bring out other classes and parents to the structures. Your students can show how they built it and explain the features in their design. Pictures and diagrams can be made. Secondly, some students may wish to save their structure but other students like to test them for strength. The torture tests usually cause the destruction of the structure. The shelters can be left in place and observed to see how they look after a season or a year (unless they are an eyesore or hazard in a site used by others).

CELs / Subject Integration: critical and creative thinking, Native Studies

Resources

Appropriate site: You need a site that is easy to get to and where no one will get excited about what your students are doing to the environment. In some places it might not matter if you strip a bunch of spruce boughs, but in other places it will matter. Remind students to be aware of how they are impacting the environment. You might have to cut poles and bring them to a location if poles can't be made at that location. Consult your local board.

Flagging tape.
Whistle.
First aid kit.
Garbage bags.
Poles perhaps (if the site does not have appropriate natural material).
Transportation – depending on location of your site. There are advantages to being near the school.
Water bottles and a snack – students' responsibility.

Teacher Notes

- Discuss the activity with the principal, board, and knowledgeable people in your area, to get more ideas.
- Arrange for students to bring water bottles and a snack.
- Some students will want to stay home and play video games (“couch potatoes”) rather than participate. Consequently they will not get their permission slips signed by parents/guardians. You need to pursue these permission slips to assert that attendance is mandatory. The most resistant students can end up learning the most from the activity. Explain to a parent why students should come. Take that conversation opportunity to invite the parent to visit the camp.
- When you don't know something, be a good model to your students of *how to learn*. Your interest and curiosity in things you don't know will help students immeasurably. These learning events increase the quality of the teachable moments you'll have with your students.
- Every year students and families become more comfortable with the survival camp, and more Cree gets spoken by adults who help out, and students become more comfortable speaking Cree. It is evident that this can not be accomplished nearly as well in 40-minute periods of time. You need to keep the long-term benefits in mind when planning time allocation.

Lesson 2: *Debriefing*

Timing
1 class in the classroom

Goal
To get students to talk about their experience and relate it to what they already know. (Through talking, students learn in greater depth.)

Objectives
1. Students will be able to recognize key concepts and terminology (e.g. levers, wedges, thermal conductivity, forces, tension, and vectors)
2. Students will plan and prepare to build an emergency shelter using tools this time, and expanding it into an overnight camp.
3. Students will practise measuring, by using "natural" scales, such as thumb width.

Aboriginal & Scientific Value to be Conveyed
co-operation

Instructional Strategies
direct, interactive

Lesson Outline
1. Using the notes you took during the shelter building, textbooks, and other resources, introduce the ideas and terms you want students to learn about in the unit.
2. Plan and sketch a shelter for the next lesson (Lesson 3) for which tools will be used.
3. Measure metrically student's thumb width, hand span, and pace so they can calculate distances.
4. Debrief the lesson by itemizing what students have learned, especially the science curriculum content. Get them to make summary notes on your debriefing.

CELs / Subject Integration: technological literacy, communication

Resources

Teacher Notes
- Connect events in Lesson 1 with the curriculum whenever possible. The science curriculum includes: values that guide a scientific mind, processes for constructing knowledge about nature, technical skills, etc. Point out to students what they have learned. This will guide your student assessment for the unit.

Lesson 3: *Building a Camp Using Minimum Tools*

Timing
1 hour over several days for planning, then 2 days (1 overnight) at the camp

Goals
1. To involve students in the out of doors.
2. To engender a sense of community among the students by requiring them to assist in various tasks that benefit the group.
3. To promote a sense of ownership in what students do, and to augment students' self-esteem.
4. To reduce the number of "couch potatoes" among the student body.

Objectives
1. Students will follow safety precautions constantly, and will articulate them to others.
2. Students will enhance their skill at sketching what they observe.
3. Students will develop their values and skills about co-operating with others.
4. Students will improve their preciseness of communication by composing and revising the shopping list.
5. Students will make a campfire properly in a safe fire pit.
6. Students will be able to make a tea stick, place it securely over the fire, and make tea.
7. Students will be able to make an eating table out of trees (like forest-fire fighters do).

Aboriginal Value to be Conveyed
strength, co-operation

Instructional Strategies
experiential – learn from 'mistakes' (safety issues not included)

Getting organized for the survival camp

Lesson Outline
Planning Phase:
1. Plan the menu for the entire outing with a large group of students.
2. Get a smaller group of students to prepare a shopping list. Put them in charge (how many buns? how much oatmeal? etc. how much does it cost?).
3. If convenient, take the students shopping. Or if you do the shopping, follow the students' shopping list literally (to the letter of the law – without interpretation). This focuses attention on *precise* communication. You might get students to categorize the materials according to where the materials are found in the grocery store. (Use a computer to cut down on the time it takes to re-organize and revamp the list in the future. This

creates the need to know some new word processes skills.)

4. Students organize the food materials (safe storage and efficient access at the camp) and students cope with the results of any poor communication they caused by the way they wrote their list. Let students learn from what goes wrong.

Field Trip Phase:

5. Proceed to the site and let students pick the location for their camps.
6. Review the safety notes.
7. Use a whistle to signal students -- one whistle means listen, two blasts means come here, three blasts means danger (more advanced signals can mean "bear" etc.).
8. Each group constructs a camp which includes a shelter, fire pit, cooking racks, and tea stick.

SAFETY NOTES:

***Axes** should be avoided, especially **hatchets**. Axes require close supervision and specific safety instructions. If axes are to be used, either an adult does all the cutting, or an adult supervises constantly to ensure students are cutting away from their body, and to watch for people walking into work area.*

*A **knife** (some sort of sharp edge) is required. Thus, make sure that students cut away from themselves. Demonstrate how a knife can slip, or a **saw** can hop. (Careful, don't make your demonstration* too *realistic!)*

*Have a **first aid kit** handy.*

*Before you start any **fires,** make sure it won't spread, and you know how to put it out. Check for local fire bans.*

Stay within the bounds of the site. Permission must be granted by the teacher for any student to wonder out of bounds.

9. After the shelter is completed, each group should make a scale drawing of their camp. Be sure to have a legend including title, scale used, and who was in the group. If they are capable at drawing, have them sketch a side view as well as a top view.
10. Each group makes informal presentations explaining their camp and what they are learning. These presentations are made to some other students and to the teacher when visiting their camp. This allows each group to practise the more formal presentation they'll make during Lesson 4.
11. Other activities will occur, according to student interest and ingenuity; e.g. trapping a bird, building a table (see Teacher Notes), making tea, etc.
12. Take pictures of or video the activities.
13. Co-operation around meals (preparing, eating, cleaning up) is a crucial event.
14. Encourage parents to join the group in the evening to cook, for example, bannock on a stick, drink tea, and share stories about the community.
15. At the end of the field trip, get students to clean up the site, ready for other people. This is mostly about respect for Mother Earth and for other people.

CELs / Subject Integration: personal and social values and skills, critical and creative thinking

Resources
Appropriate site.
String, nails, hammer, poles, cordage, Swede saw, tarp, wire, matches, and a knife.
Flagging tape.
Tape measures.
Empty pop cans (cleaned out) to boil water in, hung on a tea stick
Whistle.
First aid kit.
Cooking materials (e.g. camping stoves, pots for boiling water, lots of paper towels).
Food (organized for safety and efficiency).
Garbage bags.
Poles perhaps (if the site does not have appropriate natural material).
Transportation depending on location of your site. There are advantages to being near the school.
Water and snacks -- students' responsibility -- if it's a day event.
Sketch pads and pencils -- students' responsibility.
Measurement of some students' thumb width, hand span, and pace, so they can calculate distance.
Camera (recyclable, video, etc) to record the event.

Teacher Notes

- See notes for Lesson 1.
- Choose a site close to town. This increases the number of adult volunteers who will join you. Short time chaperones are helpful, especially around dusk (a time when accidents can happen more often).
- If students show up inappropriately dressed, ask them in a good-natured way, “Do you really wanted to camp in that outfit?” Give them a chance to change their mind. It doesn't hurt to have a few extra old clothes and blankets handy.
- When you discover you forgot some equipment or supplies, use the old quotation: “We didn’t need that anyway.”

- How to make a table made out of trees (string and nails):

    a. Choose 4 poles for legs. Demonstrate how to use the axe to make a wedge out of the leg ends that will be pounded into the ground (hold leg on a log with one hand, and slice bits off the end with the axe in the other hand – see photo at right). Give students a chance to develop the skill. At first, hold the leg yourself so students can axe with 2 hands. Let them “graduate” to 1 hand when they want to. Pound the 4 legs into the ground. Do not let girls get away with saying, “I'm a girl, I can't do that!”

b. Select 2 poles to go across each end of the table. Attach (with string at first) each of these poles to 2 legs at a height suitable for a table height. Check on the height and whether the poles are level. Then attach (hammer and nails) the 2 poles to the table legs. For easier hammering, use the axe to plane a smooth section on a pole where it will be nailed to a leg. The tabletop will be made of poles resting on these cross pieces.

c. Measure the table width and calculate the number of poles needed for the tabletop (to be laid length ways). Assemble these and saw them to the correct length (long enough to overlap the 2 cross pieces at the ends of the table). Place them on the 2 cross pieces in a way that makes the smoothest tabletop. Place cardboard or tarp on top for a smoother table top.

- Whenever you see a campfire not properly constructed in a fire pit, simply put it out with a bucket of water ("for safety sake") and let the students clean up the mess. Next time they will make a proper fire.

- Whenever the first aid kit is used (usually a cut finger – see photo at right), make the procedure a teachable moment for every student in the vicinity.

- Organize the main cooking area separate from the shelter areas (the individual camp areas). The back of a truck works well (see photo in the Appendix). For safety sake, only cooks should be allowed in this restricted area. Be firm, but with good humour, with students when they contravene this safety rule. Do it loudly so it is a teachable moment for everyone within earshot.

- Each time you have a camp-out, the cooking equipment gets better, students take on more responsibility, and the co-operation improves. Thus, expect the first extended camp-out to be a trial run, having all the faults of a trial run. Faults and successes become the content for Lesson 4.

- Do not be surprised to discover that a student who couldn't sit still for longer than 5 minutes in a math lesson will sit still for 45 minutes waiting to catch a bird (see photo in the Appendix). You will discover important things about your students, things you will be able to draw upon back in the classroom when the content is not as concretely engaging as it is in the out of doors.

- Encourage story telling during the field trip. Some local stories will be like legends – a part of a student's heritage.

Travelling to the survival camp. See the Appendix for your tour of the October 1999 camp.

Lesson 4: *Debriefing*

Timing
1 class or more depending on the number of groups

Goal
To get students to talk about their experiences and relate those experiences to the concepts and terms you want students to learn in the unit -- introduced in Lesson 2 and reinforced during Lesson 3. (Through talking, students put ideas into action, and hence learn the content in greater depth.)

Objectives
1. Students will organize themselves within each group and decide on the content and method to their oral short presentation in class.
2. Students will enhance their public speaking skills.
3. Students will correctly apply concepts and use terms introduced in Lesson 2.
4. Students listening to a presentation will be encouraging to the presenters, thus bringing a degree of happiness to the presenters.

Survival skills are helpful to forest fire fighters.

Aboriginal Value to be Conveyed
happiness, co-operation

Instructional Strategies
experiential

Lesson Outline
1. Each group does a short presentation describing their shelter and what they have learned. (They practised this presentation out at their camp.)
2. Coach presenters on their public speaking.
3. Coach listeners on showing interest and being encouraging to the speakers.
4. Review the shopping list. Make changes and store for future out of doors activities or field trips.
5. Discuss co-operation. The more subtle and supportive the tone of the discussion, the more effective it will be.

CELs / Subject Integration: communication

Resources

Teacher Notes
- If you had an Elder attend any of the shelter building activities, ask them to talk to the students about how people can become better presenters and how people can show encouragement to those presenting. This will guide the way you act as a coach in this lesson.

Lesson 5: *Overview & Student Assessment*

Timing
1 or 2 classes

Goal
To give students further experience talking about the content developed in the unit.

Objective
Students will *apply* to new situations the structure and design concepts they learned during the previous lessons by participating in a class discussion and by writing a report about their shelter.

Aboriginal Value to be Conveyed
respect for Mother Earth

Instructional Strategies
direct, indirect

Lesson Outline
1. Compare and contrast the shelters' structure and design with other buildings in town. Discuss materials, design, and purpose of the buildings.

2. Address the content and topics that you want to emphasise in the unit; thus reviewing this content with the students.
3. Summarize what you have been clarifying all along about what ideas/terms belong to the Aboriginal culture of the community and what ideas/terms belong to the culture of Western science. Their similarities and important differences can be reviewed.

4. Carry out a summative assessment:
   a. Students write a story about their shelter. Their shelter could be a part of a local story, depending on how you set the scene in your introduction to Lesson 1.
   b. Conduct an in-class assessment (e.g. a written test of some sort).
5. While students feel energetic about their field trip, get them to write one thank-you note to one of the adults who helped out in some way.
6. Extend this unit into studying a novel; e.g. *Lost in the Barrens* (Farley Mowat), *Strange Companion* (Daylon Hyde), *Trapping is My Life* (John Tetso), *Kidnapped in the Yukon* (Lucy Berta Woodward).

CELs / Subject Integration: critical and creative thinking, Social Studies, Language Arts

Resources
Photographs of local structures and buildings.

Teacher Notes
- Take photographs ahead of time of the structures and buildings you want students to talk about in this lesson's discussion.
- This lesson may involve a short field trip to a local construction site.

Appendix

A Photo Tour of a Survival Camp

This camp took place in September 1999, 15 km north of Timber Bay.

Photo 1: Harvesting material.

Photo 2: Transporting material.

Photo 3: Organizing and laying out.

Photo 4: Getting it put up.

Photo 5: A job well done.

Photo 6: Using the shelter. Campfire is out to prevent anyone from rolling into it.

Photo 7: The shelter works. The fire was extinguished before crawling in bed.

Photo 8: Another group has a different idea with the same material.

Photo 9: Yet another idea.

Photo 10: The principle is right. Students will learn more about scale and measurement. (Tarp too large)

Photo 11: Chelsea started one idea that didn't work for her.

Photo 12: This is a design that Chelsea and Warren came up with next.

Photo 14: A little shelter of sticks designed to keep their puppy out of trouble.

Photo 13: Warren shows how good their design really is.

Photo 15: Note the home made pins.

Photo 16: Note the home made pegs.

Photo 17: Students learn safety at the same time as they enjoy hot tea.

Photo 18: Taking responsibility for the puppies around the fire.

Making a Table – Just What Firefighters Need to Do (Photos 19-23)

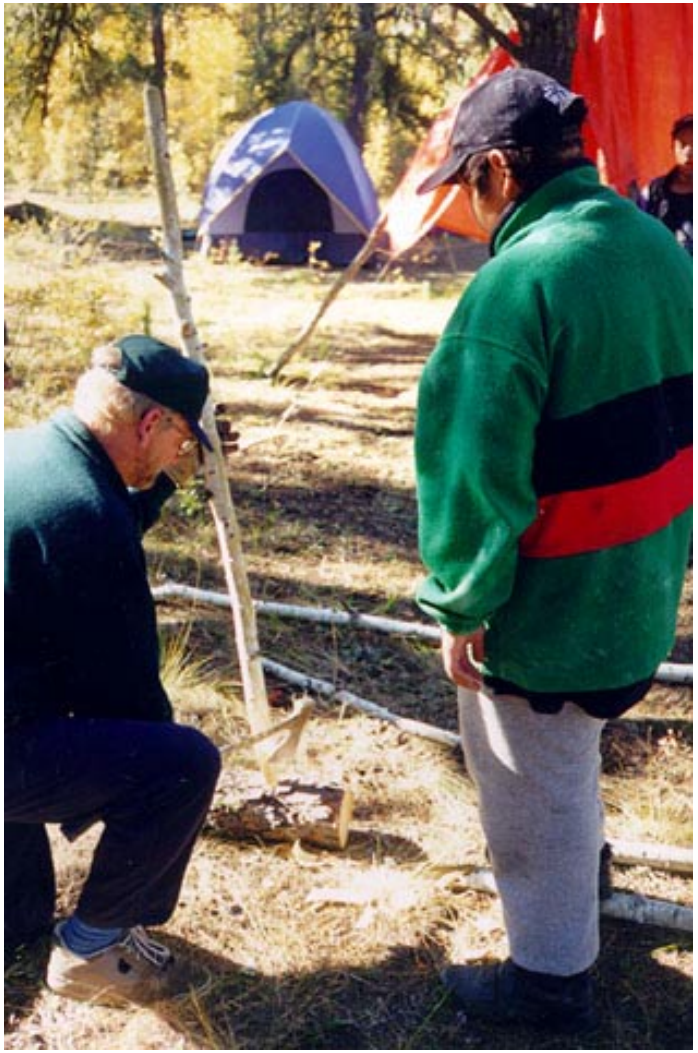


Photo 19: Teacher demonstrates a safe way to handle an axe when making a tapered-end.

Photo 20: Rod gives it a try for the first time.

Photo 21: Students make sure they have the table square.

Photo 22: Some stop to think. Some just stop.

Photo 23: Putting on the finishing touches. Note the design in the table's bracing.

Photo 24: A whiskey jack trap was designed by students. They show great patience.

Photo 25: Patience rewarded. The bird was soon released unharmed.

Photo 26: Sylvia and Erin are class cooks. Notice how the stove etc. is sheltered from other students. Keep the kitchen and eating area separate, to avoid spills.