



The Leave No Trace Educator's Kit

This package is designed as an aid to instructing students in Leave No Trace techniques. The kit follows the seven principles developed by the National Outdoor Leadership School (NOLS), as adapted by the Department of Environment for use in the Yukon Territory.

The lesson plans included are not designed as a substitute to such resources as Soft Paths or A Leader's Guide to Teaching and Learning Leave No Trace; they are meant to provide condensed information and activity ideas that complement the more extensive information contained in the two books. The related activities given at the bottom of each lesson plan are taken from the Leader's Guide; however, the activities will likely need some adaptation to suit the ages of students and to reflect a more Yukon perspective.

The lesson plans are formatted for a day trip and an overnight trip, where the emphasis would be on Leave No Trace. The day trip is designed for an introductory outdoor ed class, likely at a Grade 8 level. The overnight trip plan includes discussions on ethics that may be more appropriate for an older age group. Both plans, however, provide skills and activities that can be used and adapted by any program from Grades 7-12.

Some of the activities and information is more appropriate to introduce before the trip, in a classroom environment. A separate in-class lesson plan has not been included, but a brief read of the lesson plans should clarify what is a pre-trip exercise and what is more appropriate for in the field. The day trip is designed to act as a precursor to the overnight trip. If only one trip is planned, or if instructors are only using portions of the lesson plans, it is advisable to consult both the day plan and the overnight plan for complete information and activities for each principle. The posters are also a good in-class introductory aid to the principles of Leave No Trace.

Note that the Student Journal is designed to be copied as a 2 sided document and then folded to form a booklet.

Any comments on the content or clarity of the educator's kit would be greatly appreciated. Call the YTG Conservation Education Coordinator at 667-3675.

DAYTRIP LESSON PLAN: PRINCIPLE 1

Plan to Leave No Trace

Planning of the daytrip should be a class exercise. It will get students thinking about preparation, rather than leaving all the details to adults.

1. Determine where you are going. Provide resources such as:

- ~ topographic or orienteering maps
- ~ hiking guides
- ~ brochures or information on the area

Questions to ask:

- ~ What does the area look like (plants, hills, lakes, trails)?
- ~ What activities will the class be doing (eating? canoeing? hiking? biking? plant ID?)
- ~ How long does it take to get there?
- ~ How will we get there?
- ~ How long are we staying?

Goal: to give every student a good idea of where they are going, and for how long.

ACTIVITY

Students can work in groups to plot out their itinerary. Provide questions, and have them consider the answers. Focus on the planning aspect of where they are going and how they are getting there.

2. Discuss ways to prepare so impact is minimized. Discuss packaging and garbage with students.

Questions to ask:

- ~ What do you consider to be litter? A grain of rice? Sandwich crumbs? Apple cores?
- ~ What types of food attract wildlife, especially bears?
- ~ What happens when bears get human food?

Goal: to get students thinking about food choices before heading into the backcountry.

ACTIVITY

Have students prepare a zero garbage lunch. Groups of students can prepare a lunch menu and snacks that will result in no garbage.

3. Planning not to have a fire and preparing in case of emergency.

Discuss with students the pros and cons of planning to have a fire. Also discuss what impact groups create if they are unprepared for bad weather, unexpected overnights or a group member getting injured.

Related activities in Leader's Guide:

Backpacking Problem Solving, p. 57

Plan Ahead and Prepare - Meal Planning, p. 101

DAYTRIP LESSON PLAN: PRINCIPLE 2

Camp and Travel on Durable Surfaces

Since the daytrip will not involve camping, concentrate on the travelling portion of this principle.

1. What is a durable surface? Provide a definition and create recognition of what is durable and what is sensitive. Teach students to make choices about where to step in the wilderness.

Questions to ask:

- ~ What will a footprint do to different surfaces (vegetation, ant hills, moss, dry slopes, trails)?
- ~ How can we keep from widening trails?
- ~ What happens when big groups travel through an area (on-trail? off-trail?)
- ~ What sort of places make good, No Trace rest stops?
- ~ What happens when travellers make shortcuts on the trail?
- ~ Is snow a durable surface?

Goal: students will learn the range of surfaces, from durable to sensitive. Knowing what surfaces are better to walk on allows students to make a choice to not damage fragile ground.

ACTIVITY

Pick a spot with several types of surface. Have student groups try a "footprint test". Each group can share with the others what impacts their footprints had on different surfaces. Reach a conclusion as a class about the best Yukon surfaces to travel on.

2. Footwear makes a difference! Discuss the benefits of water-resistant boots, and the drawbacks of clunky, heavy boots on soft ground. Link this back to Planning Ahead.

Questions to ask:

- ~ Why should you stay in the middle of the trail, even if it is muddy or wet?
- ~ What are disadvantages and advantages of heavy boots? light boots?

Goal: students will gain awareness of the impacts of footwear on different ground, and they will learn to plan ahead.

ACTIVITY

A student group can prepare a demonstration to the class about back-country travel. Students can demonstrate the impacts of extra trails, shortcuts, trampled flowers, trail widening, etc. What trace is left for the next person?

Related activities in Leader's Guide:

Travel on Durable Surfaces: p. 123

Hidden Word Puzzle: p. 81 (in-class exercise)

DAYTRIP LESSON PLAN: PRINCIPLE 3

Pack in, Pack out

This principle relates to planning ahead and creating a minimum of garbage. On a daytrip near town, however, students should think about other peoples' messes, not just cleaning up after themselves. Not littering is a common ethic to teach youth. Stewardship, or personal responsibility for leaving the land cleaner than it was found, adds another dimension to this principle.

1. Leave the wilderness as clean, or cleaner than you found it. Discuss what is considered to be garbage. Many students will not think of apple cores, food scraps or toilet paper as garbage.

Questions to ask:

- ~ What is/is not garbage?
- ~ For apple cores, banana peels, etc...does it grow in the backcountry?
- ~ If something is biodegradable, is it OK to leave it behind? Why or why not?
- ~ What do you think if you find someone's toilet paper in the bushes?
- ~ What are your thoughts about the wildness of an area when you find garbage?
- ~ What are some ways to plan ahead for your garbage, and other peoples' garbage in the backcountry?
- ~ Is it your responsibility to clean up after other people? What makes you want to or not want to?

Goal: students should consider their own choices about what they leave behind in the backcountry, and how they react to other peoples' messes when in the wilds.

ACTIVITY

How long will it last?
Have an aluminum can, toilet paper, fruit peels, bread, a twist tie, etc. available. Lead a discussion about how long it would take for these things to degrade. An extension is to discuss the impact on animals during the time it takes to degrade.

2. To burn or not to burn...If the class is having a campfire, discuss what garbage totally burns, partially burns and what should not be burned at all.

Questions to ask:

- ~ What would you burn in your campfire? Explain.

Goal: students see firsthand what does not burn completely, like tinfoil, cans and bottles.

ACTIVITY

Reclaim a fire pit. Concentrate mainly on the garbage aspect, or combine this activity with a discussion on campfires in relation to Principle 5. Have the class pack out the garbage they find.

Related activities in Leader's Guide:

Exploring Trash Disposal: p. 72
Pack it in, Pack it out: p. 94

DAYTRIP LESSON PLAN: PRINCIPLE 4

Properly dispose of what you can't pack out

Waste water, waste food and human waste can be unsightly, a health hazard and have a negative impact on wildlife. For daytrips, washing dishes is generally not an issue. All food scraps should be packed out by students. Human waste should be planned for; however, and students should know what is expected of them. A straightforward approach works best for this topic.

Catholes: a demonstration

1. Students should learn **3** main points for human waste:
 - ~ minimize the chance of water pollution
 - ~ minimize the chance of anything or anyone finding the waste
 - ~ maximize the rate of decomposition

How? By making a cathole.

ACTIVITY

The only activity for this is to have students put catholes into practice. Make catholes the expectation and the rule on all camping trips where toilets are unavailable. Trowels, toilet paper and a brown paper bag for waste paper should be available at a central yet private area.

2. Demonstrate for the class by digging a sample cathole, using a pinecone as your poop. Link all aspects of the demonstration back to the 3 main points. Include the following additional information in the demonstration:

- ~ pick a spot away from trails or areas in use
- ~ south-facing slopes are a good place for high rates of decomposition and lovely views
- ~ at least 60 metres from water and camp
- ~ use a shovel or trowel to dig the hole: 15cm deep and 10cm wide
- ~ keep your soil, preferably in one piece
- ~ recover the hole and make it look as natural as possible
- ~ pack out all toilet paper, tampons and pads: toilet paper does not burn well unless in a hot fire (waste paper products can be burned by trip leaders on overnight trips)

Questions to ask:

- ~ What are some of the problems associated with human waste?
- ~ Why are catholes a good way to dispose of human waste?
- ~ Can we make a commitment as a class to all dispose properly of human waste?

Goals: encourage students to agree as a group to take waste disposal seriously. Foster a strong consciousness within the group regarding the importance of catholes in keeping the wilderness wild.

Related activities in Leader's Guide:

A hole in the ground you can move, p. 55 (pre-trip preparation)
Properly dispose of what you can't pack out, p. 104

DAYTRIP LESSON PLAN: PRINCIPLE 5

Leave what you find

This principle teaches an ethic of respecting the land, the animals, and the history of the area students travel through. One of the most important aspects of this principle for daytrip travels is that the size of the group magnifies the impact each individual has on the land: if one student decides to cut a branch, twenty other students will also have that choice. What is somewhat acceptable for a lone traveller becomes quite destructive when carried out by an entire group. The activities for this principle are listed at the bottom. It is recommended that they are read and planned ahead of time, as some adaptation may be desired.

1. Resisting the temptation. As with many other aspects of camping, many students will not see the problem with picking flowers, breaking or cutting branches, or carving trees. Facilitate a group discussion about the potential impacts of these activities. Students may debate about what they were taught versus the information provided by you and other classmates.

Questions to ask:

- ~ On a Leave No Trace scale of one to ten (one being a No Trace activity) what level of impact do you think cutting off a tree branch has?
- ~ Does cutting branches have a bigger impact if it is a larger group? Why or why not?
- ~ What about if you cut branches or pick flowers in an area many people will visit?
- ~ What impacts do you think these activities have on the plants themselves?

Goal: students will consider their activities in relation to who they are with, where they are, and what impact those activities may have on the environment and other travellers.

2. Wildlife. Bears are the most obvious concern when travelling in the backcountry. However, bear awareness is worth a separate discussion and can sometimes overshadow human behaviours toward other animals. All animals need to be treated with respect and viewed at a distance.

Questions to ask:

- ~ What are some problems with feeding animals, even squirrels?
- ~ How close is too close when you are watching a moose, sheep, coyote, etc?
- ~ What may happen if you get between a mother animal and her young?

Goal: students will understand the need to keep animals wild and to avoid frightening them.

3. Artifacts. Leaving artifacts undisturbed goes beyond a principle: it's the law in the Yukon. Discuss with students the reasons behind laws that protect archeology and First Nations heritage. Ask students for any stories or information they may have about the area and link their history to the history of the region.

Related activities in Leader's Guide:

Imagine a wilderness, p. 82 (excellent)
Leave what you find, p. 84
Natural scavenger hunt, p. 87 (good)
Nature's web, p. 89

DAYTRIP LESSON PLAN: PRINCIPLE 6

Use stoves and small campfires

Campfires and marshmallow roasting go hand in hand as two of the most time-honoured camping traditions. They are also two of the hardest traditions to break. For daytrips especially, campfires are unnecessary. Explaining and providing rationale for not having a fire is essential to students developing an understanding of this principle. Further practice and lesson guides on no-trace fires are included in the section on overnight LNT trips.

1. Choosing not to have a fire. Make fire a choice, not a requirement to your trip. This means planning ahead for adequate clothing and food. If a fire is a luxury, not a necessity due to poor planning, groups can plan for a better, safer, smaller No Trace fire.

Questions to ask:

- ~ What are some of the reasons people build fires?
- ~ When can fires be dangerous or undesirable?
- ~ What are other options, besides building a fire?
- ~ When might we need a fire?
- ~ How can we plan ahead so we can avoid needing a fire?

ACTIVITY

Brainstorm different nighttime activities that take away the need for a fire. Discuss with students why they enjoy having a fire and explore our cultural leaning toward nighttime campfires. Have students come up with reasons for and against campfires.

Goal: students will explore their reasons for enjoying fires, rather than simply making a fire without a conscious decision.

2. Having a small campfire. If a fire is planned on your daytrip, planning the fire as a group will help limit the size of the fire and increase the amount of fuel that becomes ash, rather than charcoal when it is time to leave. Discuss the ideal size of easy-burning firewood. Ideally, however, do not build fires on daytrips and discuss the reasons not to with the class.

Questions to ask:

- ~ How long will we need the fire for?
- ~ Is it for warmth or cooking?
- ~ How will I keep the fire from leaving a trace?

ACTIVITY

Tree I.D. Lead the students on a tour of a Yukon forest, in pretend-search of ideal firewood. Identify the types of trees and discuss the uses of each tree. This can be strongly or loosely linked to their ability to burn, depending on your focus. This can also be a student group presentation and can include the sizes of wood that are best for burning.

Goal: students will learn to plan fires ahead of time, rather than piling wood on and seeing what size the fire becomes. Students will consider the trace a fire leaves.

Related activities in Leader's Guide:

Fires or stoves? p. 75

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DAYTRIP LESSON PLAN: PRINCIPLE 7

Be considerate

Just as Principle 1, **Plan ahead and Prepare**, encompasses portions of all other LNT principles, so does Principle 7. Showing consideration for other wilderness users is a part of what each ethic is all about. The act of Leaving No Trace is a consideration in itself. Beyond the first six principles, however, being considerate involves the amount of noise a group makes and the behaviour they demonstrate around others.

1. Enjoy the silence. Many youth are not tuned to enjoy the silence of nature. Getting out of the classroom, having space to run in and the company of friends all contribute to loud enthusiasm during outdoor ed trips. Obviously no student is going to sit still and be silent for days at a time, but a ten minute meditation is possible - as long as the mosquitos are not too bad!

Questions to ask:

- ~ What sounds can we hear around us?
- ~ What effect can loud noises have on other travellers and wildlife?
- ~ Would you be disturbed by bright clothing worn by other travellers? Why or why not?

Goals: students will consider their impact on other travellers and wildlife. By visualizing the interconnectedness of the area, students gain an appreciation of their contact with the natural world.

ACTIVITY

Have the class (or smaller group) sit in contact with some part of the natural world (i.e. a stream, tree, plants, piece of bark). Provide a quiet dialog on visualizing the item interrelating with the rest of the area. Water flows and nourishes plants, tree roots tap into the soil and connect with other roots and water sources, etc.

2. Leave No Trace = Consideration. Consideration needs to be taken for both other travellers and those who still use the land for food and other traditional purposes. Sound, intrusion and damage to trapper's cabins, fish camps, hunting camps etc. are all things that can detract from the experience of those who subsist on the land. Discuss with students the importance of treating other wilderness users with respect.

Goal: students will learn to recognize how their behaviour can affect others. Students will understand they have the choice to respect other users' enjoyment of the wilderness.

Related activities in Leader's Guide:

Silent Hike, p. 111
Solitude Sit, p. 115

OVERNIGHT LESSON PLAN: PRINCIPLE 1

Plan to Leave No Trace

Planning the overnight trip should be a class exercise. It will get students thinking about preparation, rather than leaving all the details to adults. Refer to daytrip lesson plan for logistics planning ideas.

1. No Trace menu planning. Planning meals to use the least amount of pots necessary is a good start for LNT cooking. Using less pots does not mean sacrificing nutrition or taste, but it does involve planning ahead. Refer to Soft Paths (NOLS) for one-pot cooking ideas.

Questions to ask:

- ~ Are we cooking as a class or in smaller groups?
- ~ How many people are we cooking for?
- ~ How will we store our food?
- ~ How long will food stay fresh?
- ~ How are we carrying the food (backpack, canoe)?
- ~ Can we prepackage anything so there's less waste?

ACTIVITY

One-pot wonders. As a class or in groups, prepare a menu plan that involves the least amount of pots for each meal. Create some type of reward for creativity in meal planning. Make this a pre-trip activity, so students can try their creations at home.

Goal: to provide basic planning skills, including menu planning. By preparing ahead of time, students have the opportunity to familiarize themselves with some aspects of wilderness cooking.

2. Packing for the seasons. On overnight trips in the Yukon, being prepared for the weather is especially important. Some classes experience -15 temperatures in September, or -10 in late May. Although packing light is great in theory, being ready for the weather makes a happier, less impacting experience for youth.

Questions to ask:

- ~ What temperature ranges can we expect?
- ~ Do you have a packing list to follow beforehand?
- ~ Has a buddy checked your equipment before leaving on the trip?

ACTIVITY

Students should work in groups to double-check each other's equipment before heading out on the trip. Tie the importance of this to both personal safety and No Trace principles.

Goal: to create understanding about the greater impact caused by not being properly prepared.

Related activities in Leader's Guide:

Packing Light, p. 96

Plan Ahead and Prepare - Meal Planning, p. 101

Seven Principles, p. 108 (needs some adaptation)

OVERNIGHT LESSON PLAN: PRINCIPLE 2

Camp and Travel on Durable Surfaces

Travelling on durable surfaces is covered in the daytrip lesson plan component.

1. What is a durable surface? Provide a definition and create recognition of what is durable and what is sensitive. Discuss the options of where to pitch tents and create kitchen areas in the wilderness.

Questions to ask:

- ~ What is the most comfortable ground to sleep on?
- ~ Does that make it the best choice for a sleeping area? Why or why not?
- ~ What choices can we make to reduce the impact we have on the ground?
- ~ What equipment helps to make comfortable nights on more durable ground?

Goal: students will learn the range of surfaces, from durable to sensitive. Knowing what surfaces are better to sleep on allows students to make a choice to not damage fragile ground and vegetation.

ACTIVITY

Choosing a tent site. Lead the group on a tour of potential tent site in the camp area. Discuss the pros and cons of each site. Do not discount comfort as one of the necessities, but make students aware of other factors. As an extension, plant identification and discussion of plants, lichens and mosses can be included.

2. Planning a kitchen in the wilderness. Your cooking area becomes one of the most heavily used spots, especially if staying in the same camp for several days. Discuss kitchen site choices, including soil durability, proximity to sleeping areas, wind, fire use, trail access, etc.

Questions to ask:

- ~ How far away should we have the kitchen from the sleeping area?
- ~ Are there established trails between the kitchen and the sleeping area? If not, how should we avoid creating them?
- ~ Is access to water relatively easy or will we be making a large impact gathering water?

Goal: students will gain awareness of the impacts on heavily used parts of the campsite (kitchens, tenting areas).

ACTIVITY

Leaving no trace in the kitchen. Make students aware that you are expecting to leave the kitchen just as clean as you found it (or cleaner). Have students detail their impressions of the site before setting up the camp. Reflect on any impacts at the end of the stay.

Related activities in Leader's Guide:

Camp on Durable Surfaces, p. 62

Campsite Selection, p. 65

Choosing a Wilderness Campsite, p. 67

OVERNIGHT LESSON PLAN: PRINCIPLE 3

Pack in, Pack out

This principle relates strongly to Planning Ahead. Discuss the relationship between planning ahead and decreasing the amount of garbage generated.

1. Repackaging for less waste. Before the trip, discuss with students the need to repackage some items to create less waste. As with Planning Ahead, review the planned menu and have students find ways to produce less waste.

Questions to ask:

- ~ Why can leftover food be a problem on trips?

Goal: students will gain awareness of portion sizes and estimating quantities of food needed for group cooking.

ACTIVITY

Have students determine the amounts of food each individual will consume on an overnight trip. This gives students practice in measuring meal quantities, planning for group cooking and creating less excess food. Take extra food on the trip but try to cook the portion sizes the students thought they would need.

2. Campfires for waste disposal. Discuss with the group what garbage should and should not be burned in a fire. Work towards consensus on when garbage will be allowed in the fire, where it will be put until it is burned, etc.

Questions to ask:

- ~ What would you burn in your campfire? Explain.
- ~ What would you not burn in your campfire?
- ~ When is an appropriate time to burn garbage in the fire (i.e. after meals)?

Goal: students gain consideration for what does and doesn't burn, as well as when to burn garbage.

ACTIVITY

Before the trip, create a camp waste management plan. Just as municipalities plan waste disposal, so can the class. Working in groups, have the class develop a plan for pack-out trash, burnables, items like cans that can be burned to remove odours, and food scraps. An extension is to include human waste management in the plan. Have groups present to the class and reach a consensus on the waste management plan the class will follow.

Related activities in Leader's Guide:

Exploring Trash Disposal: p. 72
Pack it in, Pack it out: p. 94

OVERNIGHT LESSON PLAN: PRINCIPLE 4

Properly dispose of what you can't pack out

Waste water, waste food and human waste can be unsightly, a health hazard and have a negative impact on wildlife. Human waste should be planned for before the trip. Students should know what is expected of them. Catholes are covered in greater depth in the daytrip lesson plan.

1. Grey water. On student trips, the amount of dishwater generated can be substantial. Discuss the need to dispose of the water in a predetermined spot, in relation to LNT and bear awareness. Make students aware of your expectations regarding food scraps in the dish water.

Questions to ask:

- ~ what are the benefits of straining grey water and properly disposing of greywater in the field?
- ~ are there any other methods of grey water disposal that may also work (i.e. flinging water into moving water)?

Goal: to encourage students to handle food wastes properly and to dispose of grey water in a No Trace manner.

ACTIVITY

When in the field, have students determine a good place for a grey water hole. Have a strainer handy at the hole site and have students collect all the food scraps. Aim for zero-food particles in the hole. At the end of the trip, examine the site as a class to see what sort of trace was left.

2. Review human waste disposal and adopt a plan for the trip. A brown bag should be set up for disposal of paper products, which can then be burned. Review the following points to ensure minimum impact and maximum decomposition. Have a student group demonstrate cathole use for the class.

- ~ pick a spot away from trails or areas in use
- ~ south-facing slopes are a good place for high rates of decomposition and lovely views
- ~ at least 60 metres from water and camp
- ~ use a shovel or trowel to dig the hole: 15cm deep and 10cm wide
- ~ keep your soil, preferably in one piece
- ~ recover the hole and make it look as natural as possible
- ~ pack out all toilet paper, tampons and pads: toilet paper does not burn well unless in a hot fire (waste paper products can be burned by trip leaders on overnight trips)

Questions to ask:

- ~ What are some of the problems associated with human waste?
- ~ Why are catholes a good way to dispose of human waste?
- ~ Can we make a commitment as a class to all dispose properly of human waste?

Goals: encourage students to agree as a group to take waste disposal seriously. Foster a strong consciousness within the group regarding the importance of catholes in keeping the wilderness wild.

Related activities in Leader's Guide:

A hole in the ground you can move, p. 55 (pre-trip preparation)
Dishwashing with 1 litre of water, p. 70
Properly dispose of what you can't pack out, p. 104

OVERNIGHT LESSON PLAN: PRINCIPLE 5

Leave what you find

This principle teaches an ethic of respecting the land, the animals, and the history of the area students travel through. Ethics of not cutting live trees, not picking flowers, etc. should be introduced and discussed with the group. This principle lends itself to a development of personal ethics and student examination of their personal experiences and beliefs with regard to wilderness travel.

1. Wildlife. Discuss the role animal sightings play in each student's appreciation of the wilderness. Discuss photography as a low-impact wilderness activity.

Questions to ask:

- ~ Do students feel better just knowing the animals are out there, or do they feel they need to actually see wildlife?
- ~ How would students feel if they knew a particular animal was missing from the area?

2. Heritage. Discuss the Yukon's history with students. Relate the timeline of human habitation to what constitutes an artifact and what is simply junk. Discuss First Nations' culture and reasons why it is important to respect and preserve First Nations' historical artifacts.

Questions to ask:

- ~ What First Nation has this area as traditional territory?
- ~ What do you do if you find a First Nations artifact while travelling in the wilderness?
- ~ What is an artifact and what is garbage?
- ~ Is old mining equipment an artifact? Why or why not?
- ~ Does evidence of human activity change your experience in the woods?

Goals: Use the idea of leaving what you find to encourage student development of wilderness ethics. Students will examine their own beliefs and philosophies, as well as gain understanding from hearing other perspectives.

ACTIVITY

Wildlife photographer. Have students bring and/or share cameras, with the intention of photographing wildlife. Discuss with students the appropriate distance to keep between themselves and wildlife. As a wrap-up, have a group discussion about what they discovered about animal behaviour, distances, setting up a picture, etc.

ACTIVITY

Create hypothetical situations, such as finding a hunting camp, a mining camp, abandoned canoes, campfire remains, carved trees or an old trapping cabin. What are students' reactions to each? Discuss with students why they appreciate some evidence but are disturbed by other signs of human activity.

Related activities in Leader's Guide:

Imagine a wilderness, p. 82 (excellent)
Leave what you find, p. 84
Natural scavenger hunt, p. 87 (good)
Nature's web, p. 89

OVERNIGHT LESSON PLAN: PRINCIPLE 6

Use stoves and small campfires

Providing students with the idea of fire as a choice, not a necessity is a key goal of an overnight LNT trip. Students learn about cooking and equipment maintenance when using camp stoves as opposed to fire for cooking.

1. Choosing not to have a fire. Make fire a choice, not a requirement to your trip. Plan ahead for adequate clothing and food. If no fire is planned, camp stove maintenance becomes one of the priorities for a pleasant camping experience.

Goal: students will gain the skills necessary to have reliable, clean camp stoves on the trip.

ACTIVITY

Camp stove maintenance. Whether students use individual stoves or two-burner Colemans, maintaining and understanding camp stoves is key. In small groups, lead students through a cleaning and maintenance check of a camp stove. Demonstrate proper cleaning and starting methods for the type of stove the class will be using on the trip.

2. The LNT fire. Discuss various forms of LNT fires (mound fire, firepan). Discuss the effects of fire on the soil, vegetation, rocks and aesthetics of an area.

Questions to ask:

- ~ What sorts of household items would work as firepans (i.e. garbage can lid, oil change pan, large cookie sheet, etc.)?
- ~ What surface makes the best LNT fire?
- ~ What other factors should be considered with an LNT fire (wind, weather, exposure)?

Goal: students will learn how to make an LNT fire, and how to clean up when breaking camp.

ACTIVITY

LNT fire. Either demonstrate or have a student group research and demonstrate how to build an LNT fire. Things to consider are location, wind, exposure, etc. Build both a mound fire and a firepan fire. Discuss which is easier for various forms of travel. When breaking camp, clean up the fire pit.

3. Winter considerations. Discuss with students the effects of a fire in winter. Consider factors such as the Yukon's snow cover, the vegetation underneath and the use of a fire pan for protection. Though not evident during winter, the effect of fires on vegetation can be significant once summer comes.

Related activities in Leader's Guide:

Fires or stoves? p. 75
Stargazing by candlelight, p. 117
Stoves and fuels, p. 119

OVERNIGHT LESSON PLAN: PRINCIPLE 7

Be considerate

Just as Principle 1, **Plan ahead and Prepare**, encompasses portions of all other LNT principles, so does Principle 7. Showing consideration for other wilderness users is a part of what each ethic is all about. The act of Leaving No Trace is a consideration in itself. Beyond the first six principles, however, being considerate involves the amount of noise a group makes and the behaviour they demonstrate around others.

1. Discuss the good and bad effects of noise in the woods (i.e. bear deterrent vs. intrusiveness).

Questions to ask:

- ~ What effect can loud noises have on other travellers and wildlife?
- ~ Would you be disturbed by bright clothing worn by other travellers? Why or why not?

Goals: students will consider their impact on other travellers and wildlife.

ACTIVITY

Ten minutes of silence. Have the class sit quietly for ten minutes, reflecting either on their planned activities, or on what they have done that day. At the end, facilitate a discussion about what sorts of things they thought of, and what they think about keeping still and silent. If enjoyed, suggest that the class start each day with a silent time.

2. Leave No Trace = Consideration. Consideration needs to be taken for both other travellers and those who still use the land for food and other traditional purposes. Discuss with students the importance of treating other wilderness users with respect. Talk with students about subsistence lifestyles in the Yukon. Use the questions below to link the entire concept of LNT to the concept of showing consideration for others.

Questions to ask:

- ~ What sorts of things could travellers do that would bother someone with a cabin, drying fish on the riverbank? (i.e. sound, poking around a fish camp, leaving garbage, fires in wrong spots)
- ~ Why should we show respect and consideration for other users of the land, especially those gathering food or using the land for traditional purposes?
- ~ how does following each LNT principle lead to principle 7? In other words, What is the connection between being considerate of other wilderness users and the rest of LNT?

Goal: students will learn to recognize how their behaviour can affect others. Students will understand they impact other users' time in the wilderness, both during their trip and with what they leave behind.

Related activities in Leader's Guide:

Silent Hike, p. 111
Solitude Sit, p. 115