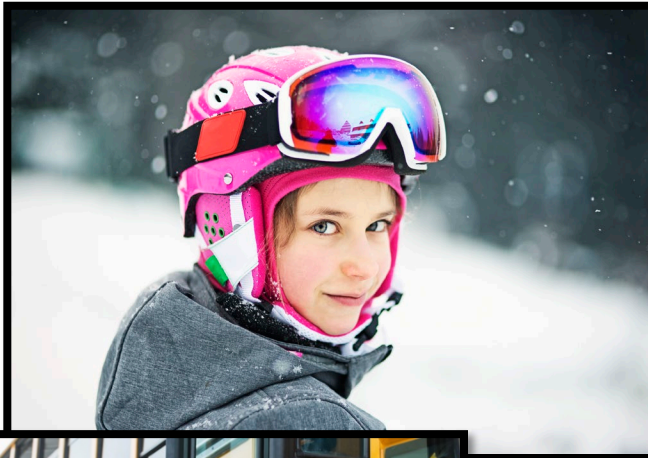




Youth**Safe**  
**Outdoors**

## Self-reliance in the Outdoors Instruction





# Contents

<b>Resource Aim</b> .....	<b>1</b>
<b>Notes to Teachers/Leaders</b> .....	<b>2</b>
<b>A Word of Caution</b> .....	<b>4</b>
<b>Games Leadership</b> .....	<b>5</b>
<b>School Field Trip Checklist For Students</b> .....	<b>7</b>
<b>YouthSafe Outdoors: Ridesafe on the Bus</b> .....	<b>8</b>
<b>Lesson 1. Outdoor Hazards</b> .....	<b>9</b>
<i>Dukes of Hazards Game</i> .....	13
<i>True Accidents are Rare</i> .....	15
<b>Lesson 2. Decision Making in the Outdoors</b> .....	<b>18</b>
<i>The Bird Lake Dilemma (Grades 5 – 8)</i> .....	21
<i>The Grouse Lake Dilemma (Grades 9 – 12)</i> .....	29
<b>Lesson 3. Outdoor Risk-taking</b> .....	<b>38</b>
<i>Forced Choice Game (Grades 5 - 8)</i> .....	40
<i>Human Hazards: A Primer of Some of the Real Risks Outdoors (Grades 5 – 8)</i> .....	43
<i>Human Hazards: A Primer of Some of the Real Risks Outdoor (Grades 9 – 12)</i> .....	44
<i>Human Hazards Outdoors Related Activities</i> .....	45
<i>Outdoor Risk-taking Profile (Grades 9 – 12)</i> .....	50
<b>Lesson 4 Taking Smart Risks</b> .....	<b>54</b>
<i>Risk Homeostasis</i> .....	55
<i>SMARTRISK Messages</i> .....	56
<b>Lesson 5. Gearing Up for Outdoor Adventure</b> .....	<b>58</b>
<i>Cool Dude Concepts</i> .....	59
<i>Managing the Cool Dude Micro-climate</i> .....	59
<i>Gearing up for Outdoor Adventure</i> .....	60
<i>Managing the Microclimate</i> .....	61
<i>Factors That Affect Body Temperature Regulation</i> .....	62
<i>Dress for Success</i> .....	62
<i>The Three Cool Dude Layers</i> .....	63
<i>Master Layering Through the Rule of Befores!</i> .....	63
<i>The Smarty Pants Game</i> .....	64
<b>Lesson 6. Student Rights and Responsibilities Contract</b> .....	<b>65</b>

<i>Sample Student Rights and Responsibility Contract Items</i> .....	69
<b>Lesson 7. Simulations</b> .....	<b>70</b>
<b>Lesson 8. The What If? Game</b> .....	<b>73</b>
<i>Sample Simulation or What If? Problems</i> .....	75
<b>Lesson 9. Survival</b> .....	<b>77</b>
<i>Why Worry About Survival?</i> .....	77
<i>The Seven Enemies of Survival</i> .....	78
<i>Survival Card</i> .....	80
<i>The Strive to Survive Game</i> .....	82
<i>Survival Kits</i> .....	82
<i>Survival Skills Instruction</i> .....	84
<i>The Survival Game</i> .....	85
<b>Lesson 10. Risk – Safety Debriefing</b> .....	<b>87</b>
<b>Lesson 11. Incident Debriefing Process</b> .....	<b>90</b>
<i>Incident Review</i> .....	91
<i>Optional Assignments</i> .....	94
<b>Sample Safety-related Assessment, Evaluation and Communication Strategies</b> .....	<b>96</b>
<b>Samples of Assessment and Evaluation Strategies and Tools</b> .....	<b>99</b>
<i>Comment Card</i> .....	99
<i>Basic Skills Checklist</i> .....	100
<i>Sample Analytic Rating Assessment Tool</i> .....	101
<i>Rubric Assessment Tool</i> .....	102
<i>Alternative Rubric Assessment</i> .....	103
<i>Sample Interest Inventory</i> .....	104
<i>Written Test Application Questions</i> .....	104
<b>Appendix A: Games Cards</b>	
<b>Appendix B: Survival Card</b>	

## Resource Aim

*... and then the day came when the risk to remain tight in a bend was more painful than the risk it took to blossom. – Anais Nin*

Field trips and activities like hiking, paddling and skiing can form an important part of a healthy, active lifestyle. However, there are very real risks of injury and even death associated with participation in outdoor pursuits and aquatics activities and travel. Participants must learn to assess and manage the risks for lifelong, safe engagement in these activities.

Most of the fatalities in sport and recreation in Canada annually involve outdoor recreation/sport activities. Particularly tragic is the fact that a dominant age group represented in these incidents is adolescents.

It is recognized that some recreational risk-taking is developmentally and socially appropriate for adolescents. Developing competencies and testing one's limits are crucial to forming one's personal identity, self-esteem, autonomy, social legitimization and sense of belonging. The challenge lies in helping our young people learn to distinguish outdoor recreational behaviors that are health-enhancing versus those that may be health-compromising.

Successful education and training for developing appropriate recreational risk-taking attitudes and behaviors has multiple components, settings and goals. It focuses on the underlying factors contributing to individuals being at risk (e.g., overconfidence, peer pressure) as well as identifying specific risk behaviors (e.g., insufficient training, not taking the right gear, not checking conditions, compromising capacity by drinking alcohol or taking drugs).

Educational exposure focused on understanding and appreciating risks and learning to manage them are important aspects of instruction in these activity pursuits. Due to their professional training and ability to provide structured learning experiences, teachers/leaders are potentially in the best position of all common influences in students' lives to help them lay a solid foundation for appropriate recreational risk-taking.

Through school-based safety education, students can gain:

- Awareness of the presence of risks; both objective environmental risks and subjective human ones they and others bring to the situation
- Cognitive and social skills relevant to assessing risks and managing one's activities
- Appreciation of the need for more training and appropriate equipment
- Potential lifelong learning and enjoyment of healthful, outdoor activities

The materials included in this package are designed to support teachers/leaders as they help students develop understandings and skills relevant to good decision-making in and for outdoor travel and living. The intent is to optimize the potential for students to discover activities they enjoy and to learn how to make them part of their life in the long term.

This curriculum support resource package recognizes that school exposures to most activities occurs primarily at the awareness and basic skill-building level. If students are to develop competence and confidence in an outdoor activity and environment, they will need additional training and supervision. This package does not provide technical instruction in specific activities (e.g., how to steer a canoe, how to cycle

up a hill) as part of school offerings and/or other supplementary training. Further training and technical information are available through local clubs, academic and non-academic courses, provincial and national associations, the Internet, books, magazines, videos, mentors, etc.

## Notes to Teachers/Leaders

**The lesson episodes, games and activities provided herein have been developed for use with Middle to Senior Year classes or groups.** They may be used in classes in Physical and Health Education, Outdoor Education (as part of Grade 11 or 12 PHE or an elective or unit in another course), as well as when working with students in extra-curricular outdoor clubs and events (e.g., Downhill Ski Day, retreat). This resource is for reference only; unless directed by one’s board or supervisor, no teacher/leader is required to deliver any of the content herein. The materials are not required curriculum for any subject or context.

**British Columbia’s curriculum recognizes development of a set of Core Competencies:**

- Communication
- Creative Thinking
- Critical Thinking
- Positive Personal & Cultural Identity
- Personal Awareness and Responsibility
- Social Responsibility

Growth and development in any and all these core competencies can be worked on or augmented through application over field trips; experiences that put the students closer to the subject and process of learning. For example, an outdoor adventure experience can be structured and processed around how each student communicated within the group, how they made decisions, how they applied critical thinking processes to address a challenge, how they saw their contributions in the group, how they approached situations involving risk, and how they experienced their responsibility for others in the small and/or large group they were part of. In addition, the lesson plans, activities and games in this Self-reliance Instruction resource can be used to specifically focus on these outcomes. Examples could include but not be limited to:

Core Competency	Self-reliance Instruction Resource
Communication	Simulations; The What if? Game – given to small groups to each solve
Creative Thinking	Decision Making in the Outdoors
Critical Thinking	Risk-Safety Debriefing; Incident Debriefing
Positive Personal & Cultural Identity	Outdoor Risk Taking; Taking Smart Risks
Personal Awareness and Responsibility	Student Rights and Responsibility Contract; Gearing up for Outdoor Adventures
Social Responsibility	Student Rights and Responsibility Contract

The new curriculum in BC has subject specific content/process Learning Standards. Teachers are reminded to reference the BC curriculum in the relevant subject area. There are clear connections between this Self-reliance Instruction resource and learning standards identified in Physical and Health Education, as well as numerous potential cross-curricular connections where teachers can apply this resource to (e.g., Career Education, Science, Social Studies, First People).

Subject	Activity or Assignment
Math	Calculate time/distance ratios & elevation changes for a trip
Language Arts	Write stories, poetry, journals, etc. related to experiences on a trip
Science	Study the ecology of the species in an area visited
Social Studies	Explore a historic fur trade route by canoe
Career Education	Develop a career plan related to adventure tourism
Entrepreneurship and Marketing / Tourism	Draft a business plan for a camp or travel company
Home Economics	Make outdoor clothing or footwear (e.g., mukluks)
Accounting	Draw up a trip budget for an extended international trip
Food Studies	Plan and prepare a nutritious menu for a wilderness trip
Textiles	Compare fabrics and materials used in tents
Information Technology	Use a smartphone/tablet to send trip reports and digital pics to the school
Fine Arts	Use the environment and experiences from a trip to inspire art (drama, music, drawing, painting, sculpting, etc.)
First People	Application of First Peoples Principles of Learning; e.g., experiential process and consequential learning; use of the natural classroom.

**Flexible resources to use with students across grade ranges.** The lessons, games and activities in this resource have been developed for use with students. While some may be more appropriate for students in grade five or above, there are some that can readily be used with younger audiences and much if not most of the remaining content and process can be adapted for younger groups.

**In recognition of the power of experiential education approaches,** connecting program content and processes to personal experiences, the lessons and related games and activities can be used:

- Before going on an off-site trip, or even if not planning any such outing,
- While en-route on an off-site trip, and

- Upon completion of a trip (while still off-site or once back in the classroom).

While some of the elements are still of benefit without a tie to a concrete school or service provider-organized experience, the greatest impact can be achieved by incorporating the resources into a full experiential context.

**This resource is user-friendly.** School teachers/leaders utilizing the materials do not need to be technical experts in outdoor pursuits or risk management. It is best to use the resources to facilitate students' learning rather than pouring information into their heads. No one should feel shy about addressing the essential topic of safety and self-reliance.

**The interactive lessons, games and activities** provided are each designed to encourage knowledge gain and discussion about risk management and safety issues, and how youth can minimize many risks through self-reliance. The games are intended to be led in a respectful, fun atmosphere. The lessons in this instructional resource are each about one hour in length.

Each lesson identifies the prescribed learning outcomes, material required, preparation, and step-by-step directions for covering basic content and leading related games and activities to teach or reinforce learning.

**The instructional resources are flexible** and teachers are encouraged to use the Microsoft Word version to modify as appropriate to meet the needs of the students.

**Italicized formatting** is used in the lesson plans to indicate potential lines of questioning and/or information delivery that teachers/leaders can use with students to cover the content.

**Icons** are provided in the upper right corner of each page to facilitate quick electronic and hard copy navigation within each lesson, including related games or activities.

Teachers/leaders may opt to deliver several of the lessons as a unit or may wish to separate the lessons into individual activities introduced over a period of weeks or months.

The lessons will be most valuable and impactful when connected to real experiences in the field.

## A Word of Caution

Serious injury and death are sensitive topics for many people who have either been involved in such situations, or who may know someone who has been involved or who may simply experience anxiety contemplating such an event. The teacher/leader should proceed with sensitivity, assuming that one or more students may find this subject difficult to deal with. To assist students in coping with their fears and anxieties and to help ensure their well-being, consider the following guidelines:

- Inform students of the objectives of the lessons/games/activities in advance and provide opportunities for them to discuss the topic with their parents/guardians.
- Advise parents/guardians in advance about any potentially sensitive topic to be covered (e.g., analyzing a tragic case history) sharing the general and specific learning outcomes, a basic outline of the instructional plan and an invitation to contact the teacher/leader if they have any concerns.
- Role model a sensitive, serious approach to incidents in discussions; remaining respectful of the people involved. This is particularly relevant when critiquing the decisions that contributed to particular incidents; focus on the decisions rather than the people.

- Be aware of the common emotional responses of children in traumatic situations. Assure them that it is normal and healthy to experience fear or anxiety. Use factual information to help dispel inaccurate "myth" based fears.
- Focus on teaching students the attitudes and actions they can take to stay safe while having fun.
- Discussion of hazards, risks and incidents can, on occasion, trigger memories or emotions related to other traumatic events. Be aware of this possibility and communicate with appropriate others if a concern arises.

## Games Leadership

### Who goes first?

Games are enjoyable if they are approached in an atmosphere of cooperation and/or light-hearted competitiveness. You can make "going first" into a game by having someone from each team do something outrageous; like spell 'supercalifragilisticexpialidocious', or have teams race while hopping on one foot, holding hands. Competition that does not involve enormous skill or exclude anyone with an obvious challenge sets the tone for fun. Select an option that is suitable to the terrain, the group, and is expedient.

### What's the point?

Each team can be awarded points for correct answers. Usually points are just abstract numbers. But points could be in the form of popsicle sticks, rocks, gummy worms, whatever works, for every correct answer – and sometimes just for a good try (or a really bad try, but if they are losing and you want them to feel better!). The team with the most points at the end wins; e.g., a second desert at dinner, gets to sleep in, doesn't have to wash dishes... you get the point. To break the tension re: competitiveness, offer a million points for a question or trillion bonus points; the point being that the points don't matter!

### Debriefing games and activities

Giving students opportunities to verbalize their experience and reflections following games or activities may significantly enhance learning; e.g., through a debriefing or sharing circle. Structure the environment and guide the sharing in a positive manner. An item like a pen or feather handed around can be an aid for reducing fear and focusing the group's attention on the speaker (the person with the object has the floor). Information shared may enhance achievement of learning as well as help teachers/leaders gather insight into the group.

### Tips for Sharing

- Keep information to a minimum; ask no more than two questions.
- Have students facing each other in a circle with eyes at the same level.
- Pick a student to start; be specific about what you want the students to focus on.
- The teacher/leader may give an example or have another teacher/leader go first.
- The teacher/leader should finish last.
- No assumptions or value judgments should be made.

### Examples:

- Something I learned about myself and risk during this game/activity was...
- Two important hazards I learned about during the game/activity are...
- One thing I liked about the game/activity was...
- One thing I did not like was...
- I appreciate learning about risks because...
- My high point of the game/activity was...
- My low point of the game/activity was...
- One strength I have because of the way I handle risk is...
- Tell something you like, admire or appreciate about another person in your group in relation to the way they manage risk

## School Field Trip Checklist For Students

### WHAT U NEED 2 DO B4 U GO



<input type="checkbox"/>	<b>S</b> et safety as a high priority, even above fun.
<input type="checkbox"/>	<b>A</b> ccount 2 the teacher/leader and other supervisors.
<input type="checkbox"/>	<b>F</b> ulfill all pre-trip requirements (knowledge, skills, fitness) - <b>B</b> ready 2 Go!
<input type="checkbox"/>	<b>E</b> quip yourself with the clothing and things <b>U</b> need, and take care of them.
<input type="checkbox"/>	<b>T</b> ake care of your body; water, food, rest, sun protection, hygiene, etc.
<input type="checkbox"/>	<b>Y</b> our attitude is your choice; commit to being a positive force!
<input type="checkbox"/>	<b>F</b> ollow instructions carefully and try your best 2 do what's asked.
<input type="checkbox"/>	<b>I</b> nform a supervisor if something doesn't feel safe 4U.
<input type="checkbox"/>	<b>R</b> ules are there to help keep everyone safe and happy; comply with them.
<input type="checkbox"/>	<b>S</b> tay calm; <b>B</b> cool in the event something goes wrong.
<input type="checkbox"/>	<b>T</b> hink <b>B4U</b> act; participate in a responsible manner so <b>U</b> can come back and do more fun stuff!!!

# YouthSafe Outdoors: Ridesafe on the Bus

## Before the Ride

**Get to the bus safely** – If you have to cross the street, cross carefully. Peer (look and listen in all directions); Point (to where you want to go); Pause (make eye contact with motorists); and Proceed only when it's safe.

**Stand back** – Stay **5 BIG STEPS** from the curb until the bus stops and the door opens.

**Move along** – There's enough bus for everyone, so don't push or shove. Enter single file. Watch your step and use the handrail when you are entering or leaving the bus.

**Sit down** – Go directly to a seat and sit down. Your friends will be along shortly.

**Remain seated** – Wait until the bus comes to a complete stop before standing.

## During the Ride

**Keep it down** – The driver needs your help. It's hard to concentrate if there is too much commotion in the bus. Stay in your seat and keep your voice down.

**Keep the aisles clear** – Let nothing, ... bags, legs, arms or bodies... block the aisle. Do not stand in the aisle. If the bus stops quickly, you could fall and hurt yourself or others.

**Everything inside** – If allowed to open the windows, keep your hands, arms, and head and belongings inside. Save your garbage for a proper receptacle.

**What's not allowed** – Animals, including pets on leashes, in boxes/cages are not allowed on the bus. Long items like skis need to be put in under bus storage or a separate vehicle.

**Share your seat** – If you get on with a friend, you may sit together. Otherwise keep the seat next to you open for anyone getting on the bus. You'll see your friends soon enough.

**Respect emergency exits** – know where they are on the bus, but never play with them.

## After the Ride

**Get off safely** – Tuck drawstrings on clothing in so that they can't catch in the handrail. Get out of the danger zone or door – Take 5 BIG STEPS and stay out of the 3-meter danger zone around the bus, so the driver can see you.

**Cross safely** – If you must cross the street, do so in front of the bus, and only after establishing eye contact with the driver.

**Ask for help** – If you drop something under or near the bus, get the drivers' okay before retrieving it.

*Modified from Manitoba Association of School Trustees - Manitoba School Bus Ridership Program*



# Lesson 1. Outdoor Hazards

*Risk is at the heart of all education. – Willi Unsoeld*

## Goal

Students develop an understanding of the presence of hazards in the outdoor living or travel situation and a commitment to remaining vigilant.

## Objectives

Students can identify common inherent environmental hazards.

Students can identify common subjective human hazards related to practices and procedures outdoors.

Students can identify common subjective human hazards related to people functioning alone and in relationships with others when outdoors.

Students can apply their awareness and understanding of the above types of hazards to a trip planning exercise or a scenario provided.

Students demonstrate confidence and commitment to applying what they have learned to decision-making in situations involving potential risk outdoors.

## Overview

The core of this lesson involves student introduction to and application of lists of risks commonly experienced in outdoor living and travel situations to a particular upcoming trip or outing. Teachers/leaders will introduce the topic, share the Outdoor Hazards Table or elements therein, and facilitate small group work (optional) and/or large group discussion. The process may then also be applied to another decision the group must make or problem it must solve. The examples provided or developed can always be used as reference if they forget any of the content.

## Materials

1. Outdoor Hazards Table (e.g., on Smartboard and in student handout).
2. Paper and pencil.

## Lesson Delivery

### Introduction

#### ***Hands-up Questions***

Introduce the idea of hazards through a series of hands-up questions.

1. *When you think of the word “hazard”, what comes to mind?*

Entertain some examples.

*The term typically refers to something that involves danger or risk of harm. A hazard may be foreseeable, but still unavoidable or it may be very subtle and unpredictable. For example, if we choose to go into the mountains to hike in the summer, we know that bears can pose a hazard. We know that*



*bears live in the mountains, so they pose a foreseeable objective (real and measurable) environmental hazard, but one we may choose to accept as unavoidable if we want to do that hike.*

*2. Can you think of some other objective hazards we may encounter in the natural environment?*

Entertain a few examples to ensure they have the concept of inherent hazards related to place.

*Some hazards aren't so obvious, particularly ones that arise from our own human activities. There are hazards associated with many of the practices and procedures we use to live and travel outdoors (i.e., what we do and how we do it). For example, most of us don't do much cooking on little camp stoves or open fires, so there are hazards associated with scalding or burning ourselves or others while cooking.*

*3. Can you think of some other hazards that are related to the way we do things outdoors?*

Entertain a few examples to ensure they have the concept of subjective human hazards related to practices and procedures.

*In a different kind of example: Research shows that people in a group will assume more risk than any of the individuals in the group would if they were alone, even if no one dares anyone or otherwise pushes them to do the activity. This is called the "risk shift", and it is one of many subjective (abstract and largely non-measurable) human hazards that we bring to the outdoors or that emerge while we are living or traveling there. This kind of risk or hazard is related to our natural human tendencies, alone and in relationships, tendencies that can serve us well or get us into trouble in the outdoors. These tendencies are based on our beliefs, attitudes and personalities, and the impact of these on our decision-making.*

*4. Can you think of some other hazards that are related to the way we take care of ourselves and how we act alone and in groups when we are on an outdoor trip?*

Entertain a few examples to ensure they have the concept of subjective human hazards related to people and process.

*The distinction between the last two categories (related to practices/procedures and people/process) is not always clear and some items can fit in either category. Often, items in the last box (people/process) are the root causes of hazards noted in the practices/procedures box above it.*

## Application Activity

### Outdoor Hazards Table

*Let's look at a table that shows some of the three types of hazards we have been discussing.*

*The lists that follow are by no means exhaustive. They do, however, provide a good overview of common risks, and highlight the significance of sources of human errors in judgement and unsafe practices that result in problems and are just as real and relevant as more tangible objective risks in the environment.*

Share a slide of the risks and provide the students with a handout of it.

**Notes to Teacher:** Modify the table as appropriate to the group. For example, recognizing that the lists are rather long, they can be limited to those items most likely to be relevant to the local area or to an upcoming or past class trip. Or, you may show the students partial lists and have them brainstorm some additional items to demonstrate they understand the nature of the different types of hazards represented. To increase readability, each of the three parts of the table can be put on a separate slide, the font size increased, and



shown in landscape vs. portrait layout. Alternatively, to reduce reading/writing time and add more fun, teachers/leaders can select any of a variety of other ways to help students learn the concept of types of hazards. Some examples may include:

- Oral tradition in storytelling
- One-act skits
- Art posters
- Pictionary, etc.

<b>Outdoor Hazards Table</b>		
<b>Place Hazards</b>		
Altitude (high elevation)	Falling trees / snags	Steep terrain
Animals (wild, domestic)	Flash floods	Stoves and appliances
Avalanches	Forest fires	Sweepers / logjams / weirs
Cold water	Illness	Thin ice
Cornices	Insects	Ticks
Currents, tides, waves and surf	Lightning	Uneven terrain underfoot
Darkness	Loose rock / tree	Visibility
Deadfall on ground	Moving water	Weather (temp./wind/precip.)
Deep snow pack	Rock fall	Wet or slippery terrain/roads
Deep water		Remoteness
<b>Practices / Procedures Hazards</b>		
Clothing inadequate	Failing to follow instructions	Poor technique
Cooking/ food preparation	Falls/slips	Spilled hot fluid
Dares / challenges	Games playing	Stove / fire incident
Dehydration	Group too spread out	Supervision inadequate
Error in planning/preparation	Instruction inadequate	Technical system failure
Equipment absent/inadequate	Lost	Transportation inadequate
Exceeding ability	Inappropriate role modeling	Vehicle breakdown
Exhaustion (over-extension)	Poor hygiene	Vehicle restraints not used
Food insufficient	Poor position	Vehicular collision
		Unsafe speed (fast or slow)



## Outdoor Hazards Table

People / Process Hazards		
Abdication (letting someone else decide)	Hunger	Peer pressure
Excessive anxiety/fear	Impatience (with self, leaders, and others)	Poor communication
Assumptions incorrect	Inexperience	Poor conflict resolution
Carelessness	Inflexibility	Poor decision-making process
Excessive competition	Intoxication	Poor risk perception
Complacency	Lack of knowledge	Predisposing health/medical condition
Denial / lack of appreciation of risk	Lack of skill	Resistance to instruction
Distraction / inattentiveness	Macho attitude	Risk shift (group risk)
Erratic behavior under stress	Overconfidence	Rushing - in (summit fever) or out (barn door syndrome)
Fatigue	Over-reliance on limited information	Schedule unrealistic
Goals inappropriate	Over-reliance on technology	Sense of immortality
Group insufficiently formed		Unfit (physically or emotionally)

Walk the class through the inherent environmental hazards (place), providing brief explanations and relevant examples as appropriate. Slides of headlines or news clippings, and/or an anecdote or two or involving related incidents may help bring these hazards to life.

Select out a few of the subjective practices/procedures and people/process factors, explain them and provide examples. Show how they may be related.

To promote better understanding of the two types of subjective human hazards (practices/procedures (what we do) and people/process (who we are and how we interact) and the students' ability to apply each, assign students in small groups a number of each of these two types of hazards (a sufficient number of each of the two types that the relevant ones are covered). For each hazard assigned to a group, have the students:

- a) Write a brief explanation or definition of the hazard (one to two sentences, maximum),
- b) Provide an example in the context of an outdoor trip or activity,
- c) Describe how the hazard may impact on an individual and/or the group's safety and success.

Have some of the students share examples of their work. Discuss, as appropriate, to reinforce the concept of the three types of risk.



## Dukes of Hazards Game

### Goal

Helping students understand the concept of outdoor hazards and increasing their understanding of the nature of these hazards and appropriate responses to them in the field.

### Overview

In this game there are five decks of cards:

- Quick Draw Cards
- Charades Cards
- Word Search Cards
- Spell Check Cards
- Party-on Cards

Each deck has 24 different cards describing a task to perform relating to the hazards on the “Outdoor Hazards Table” (refer to the “Outdoor Hazards Table” for an overview of the hazards which are addressed while playing the game). The purpose of this game is to help students learn about outdoor hazards in a fun way. Decks of cards can be printed onto coloured paper/cardstock; a different colour for each deck. Although it could be very entertaining, it may be hard to do charades in a canoe, so pick a deck of cards that reflects the mobility the group has to do the activities. Refer to Notes to Teachers/Leaders above for additional information on Games Leadership; e.g., who goes first, games atmosphere, and points allocation.

### Materials

- A copy(ies) of the *Outdoor Hazards Table*.
- Paper and pencils.
- The five *Dukes of Hazards* cards. Print the Games Cards (Appendix A). Use still coloured paper/cardstock and cut out. You may want to laminate your set of cards to keep them waterproof. Tip: clear MACtac applied on both sides of each card, including a small margin all around each card, works great and is inexpensive.

### Rules for Dukes of Hazards

#### What’s the Point?

*There are lots of hazards when we go outdoors, place hazards, practice and procedure hazards, and people/process hazards. The word hazard typically refers to something that involves danger or risk of harm. We need to be aware of hazards, learn how to avoid them, and learn some ways to deal with them if they do occur in order to reduce the potential severity of what could happen.*

The “end” of the game is flexible. When there is a lot of time, you may require that teams obtain a card from every deck to win. Teams collect a card from each deck by successfully answering the question and saving the card. This game is intended to be short and snappy, and can be played just about anywhere. If the cards that have been played are removed from the decks, it will be a new game each time.



## How to Play Dukes of Hazards

The game is generally (but not necessarily) played in teams (of anywhere from two-six players on a team). Start the game with one player choosing a card from the deck of their choice. The player reads the card aloud and does what it says. The team that guesses correctly first gets the point. Go on to the next player's turn. Keep the game moving.

At the end of the game (i.e., when the allotted time to play is up) the team with the most points wins and become the "Dukes of Hazards".

**Quick Draw Cards:** A player picks a card and reads the clue to all teams. The player silently draws the hazard that appears on the card. The point goes to the first team of the first person that guesses what the player is drawing.

**Charades Cards:** A player picks a card and reads the clue to all teams. The player silently acts out the hazard that appears on the card. The point goes to the team of the first person to guess what the player is acting out.

**Spell Check Cards:** The player picks a card and spells the hazard on the card. (There are two words that have a similar meaning on each card. For younger players (e.g., 10 years or younger) select the first word, and for older players, use the second word. If the task is too difficult, the teacher/leader can assign a different task to the player to do while they spell the word (e.g., clap your hands, pat your head, etc.).

**Word Search Cards:** The player picks a card and reads it aloud. The point goes to the team of the first person to guess the word.

**Party-On Cards:** The player picks a card, reads the card to their team and the team works together to answer the question. If that team answers incorrectly, another team gets to try for the point.

## Alternative Uses of the Cards

These cards are so versatile, they can be used for many other games and educational purposes. For example, leadership, creative problem solving, decision making, and communications skills can also be explored by simply handing sub-groups of students either a deck of the cards or just a random stack of them and having each group invent a game the other groups will play.

Decks of waterproof cards may be ordered at [YouthSafeOutdoors.ca](http://YouthSafeOutdoors.ca)



## True Accidents are Rare

### Overview

This optional extension exercise can help students understand that most events we term “accidents” are not really accidents. They are predictable and preventable incidents. By focusing on our assessment and management of human oriented practice/procedure and people/process risks, we can greatly reduce the potential for an incident.

### Materials

- Slide of Interacting Hazards illustration.
- Pencil and paper.

### Content

Initiate by asking students the following hands-up question:

*What do we mean when we say something was an “accident”?*

*Accidents are usually characterized by:*

1. *Unpredictability; the event and outcome were not anticipated or expected,*
2. *Unintentionally; no one meant to hurt anyone, and*
3. *An undesirable outcome; someone did get hurt, physically or emotionally.*

**Was it Really an Accident?** Have the students do the following:

1. *Think about an accident you’ve had that led to a personal physical injury. Write down a short phrase to capture what happened and the outcome (e.g., I fell off my bike and broke my arm).*
2. *Now, write down as many things as you can think of that may have caused or contributed to the accident and your injury. For example, bad luck, wet road, rushing, not looking where you were going, someone else’s carelessness... Be specific and focus on relevant factors (e.g., not slowing down for gravel in the alley could be a factor if you skidded out on it, but failing to wear your helmet would not because no head injury was sustained).*
3. *Looking critically at the list you’ve written down, could the accident have been prevented? Yes or No*

*If yes, perhaps it wasn’t really an accident, but a preventable “incident”. If you or others changed their behavior because failing to do so could cause the type of incident and injury that resulted, then your “accident” would not likely have occurred. Typically, incidents occur due to a combination of interacting place, practice and people/process factors.*

**Notes to Teacher/Leader:** With a younger group or if in an environment where it is not easy to write, the activity could be done verbally, with participants taking turns responding to each question.



FIGURE 1 INTERACTING HAZARDS

For example, in this illustration (put *Interacting Hazards Illustration* on a slide), we see a pair of canoeists. The canoeists are facing the natural, objective **place** related hazards associated with cold, swift water. It is more challenging to paddle through a section with converging fast currents and the waves or rapids they create than paddling flat, calm water. Cold water adds to the fear of a dunking, as well as the real risk of immersion hypothermia.

Second, we see examples of poor technique for the situation. Both paddlers are perched up high on their seats rather than kneeling down to improve their stability and the bow paddler isn't gripping the top of his paddle correctly. These are violations of accepted **practices** and **procedures**.

Finally, the third incoming stream represents a **people/process** related hazard. A lack of experience may have influenced the paddlers' choice of where to paddle, the line to take, how to best position themselves in the boat, and how to execute their strokes and maneuvers.

The combination of these three sources of hazard (place, practices/procedures, and people/process) greatly increases the potential for a swim.

Now look back at the contributing factors you listed, but with your table of outdoor hazards at hand. Reviewing those factors that contributed to your incident, write:

- **PI** by those factors that that related to place (objective environmental factors),
- **Pr** by those related to practices or procedures (what we do), and
- **Pe** by those related to people/process factors or interactions (who we are).



Upon completion, have a few students share their incident, factors and categorizations of them to ensure the group has the concept and can apply it. Point out an example that shows two or three categories of factors (place, practice, people).

4. *How many of you had factors of two or more types?*

*In outdoor adventure activities, generally we can't do much about the objective "place" related hazards; they are part of nature and part of what attracts us to the environment and activity in the first place. However, we can do lots about selecting and applying safe "practices and procedures" and about taking care of ourselves and each other to minimize the impact of "people/process" factors.*

*Accidents - completely unpredictable and unavoidable undesirable outcomes, are very rare. We are human, and we will make mistakes sometimes, and those mistakes can lead to unfortunate incidents. But, by applying our knowledge of hazards and working to minimize the effect of those we can impact, these incidents can be just as rare.*

***The responsibility is ours.***

## **Other Applications of the Outdoor Hazards Table**

The lists of outdoor hazards may be used in several other ways, including:

- In trip planning; e.g., safety plan and emergency plan, to deal with the key relevant hazards from the three parts of table
- As cues in the field to increase awareness for risk assessment and management (e.g., teachable moments reaffirming and illustrating the classroom learnings)
- In incident analysis or debriefing exercises; general or incident-specific.



## Lesson 2. Decision Making in the Outdoors

*Safety is understanding, it is an attitude of mind - it is not necessarily a simply following of rules or directions. – Gary Richards*

### Goal

Students develop an understanding of the process involved in complex decision-making and some skill in doing this.

### Objectives

1. Students can state the difference between simple and complex decisions or problem solving.
2. Students can identify the six-step process to making complex decisions.
3. Students can apply this six-step process to a scenario provided.
4. Students demonstrate confidence and commitment to applying what they have learned to decision-making in situations involving potential risk outdoors.

### Overview

The core of this lesson involves student application of a basic decision-making model to an outdoor recreation scenario. Teachers/leaders will introduce the topic, proceed with the worksheet, facilitate small group work (optional) and/or large group discussion. The process may then also be applied to another decision the group must make or problem it must solve.

### Materials

1. A copy of the *Decision-making Model* for each student.
2. Visuals of the *Decision-making Model* and table so all can follow along as it is introduced (Grades 5 - 8 or 9 - 12 version as relevant).
3. *The Bird Lake Dilemma* (Grades 5 - 8) or *The Grouse Lake Dilemma* (Grades 9 - 12).
4. A copy of *The Bird Lake Dilemma* worksheet for each student if group is Grade 5 - 8; a copy of *The Grouse Lake Dilemma* worksheet if group is Grade 9 - 12.
5. A teacher key related to *The Bird Lake Dilemma* or *Grouse Lake Dilemma* as relevant.

**Note:** *The Bird Lake Dilemma* and *The Grouse Lake Dilemma* are very similar. Bird Lake is based on a family outing, and Grouse Lake on a co-adventuring group of young adults. The intent in presenting a co-adventure scenario for senior students is that this may more closely reflect the types of outings they participate in or the types they could see themselves participating in. The senior students are also required to identify and analyze the impacts of more contextual variables.



## Lesson Delivery

### Introduction

#### **Hands-up Questions**

Introduce the idea of simple versus complex decisions by asking a series of hands-up questions:

1. *How did you figure out what socks to wear today?*

Entertain some examples. *This is generally a pretty simple decision. It takes little time and effort; we know what's in our sock drawer, what we feel like wearing, and we generally don't have to accommodate a lot of other people's interests in arriving at a decision.*

2. *What's an example of a decision you recently had to make that was much harder to make?*

Entertain two or three examples. Note similarities. For example, making the decisions may have required rational thought, logic, consideration of other's needs and other contextual elements; there may have been missing or uncertain information. There was more than one possible option or solution considered. These are examples of complex decisions. *A complex decision rarely leads to a "correct" answer; but rather, an option with the greatest probability to succeed.*

**Sound judgement is the glue that binds all other aspects of safety and satisfaction** in outdoor travel and living. *Judgement is the accumulated wisdom gleaned from past experience and applied to new situations. It becomes a lens through which the decision-maker focuses; the better judgement one has, the sharper and clearer the current picture is to deal with. If one can anticipate potential problems or decisions before they must be made, one can plan ahead, generate options and perhaps avoid a problem altogether.*

**Systematic thinking, experience and intuition (gut feelings) are important in good decision-making or problem solving.** *There is rarely, if ever, a perfect decision or solution; by its very nature, making a decision requires a valuation of the costs and benefits of alternatives present and the selection of a preferred option. This decision, in turn, is monitored and evaluated and becomes part of the data used in making the next related decision.*

*Accidents and incidents in outdoor activities can usually be traced to not one, but several questionable decisions. Errors arise due to factors such as:*

- **Incorrect assumptions** (e.g., everyone is equally fit and can maintain a fast pace)
- **Incomplete data collection** (e.g., forgetting to check the parks website re: trail conditions, warnings, closures, etc.)
- **Failure to explore other viable options** (e.g., borrowing or renting missing gear vs. Going without), and/or
- **Poor execution of an otherwise appropriate choice** (e.g., it's late in the day so the group selects the shortest trail home. But people rush, get spread out, and someone takes a wrong turn and gets lost).

### The Decision-making Model

*Solving problems or making complex decisions (i.e., ones characterized by uncertainty of information, alternatives and/or outcomes), is both an art and a science. Awareness of the **basic process**, combined with a willingness and capability to engage in **creative exploration** of other options and **intuition** are all-important. Consider the timeframe and when to make the decision. Making hasty decisions (e.g., acting on the first*



*option that springs to mind without exploring other, potentially better, options) or delaying decisions (e.g., hoping that new information will arise to contribute) can both result in a compounding of the problem.*

*The process involves six steps (see *Decision Making in the Outdoors Model* below).*

Describe the components on the visual and share examples as appropriate, perhaps referring back to one or more of the decision examples the students shared in the previous section.

*This model reminds us to be prepared to **STOP** ourselves (show by passing own arm in front of body with palm toward abdomen where our centre of gravity is located), then **THINK** before acting.*



## The Bird Lake Dilemma (Grades 5 – 8)

Don't Just Do It. **THINK!**

<b>STOP</b>	<i>Identify Problem</i>	<ul style="list-style-type: none"> <li>• Take stock of what is happening.</li> <li>• Is there a decision that needs to be made (i.e., a difference between what is and what should be)?</li> </ul>
	<i>Define Desired Results</i>	<ul style="list-style-type: none"> <li>• What does a good result look like?</li> <li>• What are the “need-to-haves” versus the “nice-to-haves”?</li> </ul>
<b>Consider Context</b>	<i>Identify Context Factors and Constraints</i>	<ul style="list-style-type: none"> <li>• What resources do we have to work with? Consider information (including identifying "don't knows"), skills, equipment, time, environment, group dynamics.</li> <li>• What, if any, limitations/constraints do we have in any of the above?</li> </ul>
<b>Consider Options</b>	<i>Formulate and Weigh Options</i>	<ul style="list-style-type: none"> <li>• Identify and explore several ways of acting to get the desired results, including doing nothing.</li> <li>• Brainstorm; milk out options and variations.</li> <li>• Keep an open mind – How you see the problem may limit good solutions.</li> <li>• Narrow down the options and consider the pros and cons of each of the most promising ones.</li> <li>• Look for a simple, effective approach that makes sense.</li> </ul>
<b>Select an Option</b>	<i>Choose and Communicate</i>	<ul style="list-style-type: none"> <li>• Choose an option, using an appropriate method for the group and situation (e.g., who participates in final decision making).</li> <li>• Communicate the decision to those affected by it.</li> </ul>
<b>Implement Plan</b>	<i>Initiate Action and Organize</i>	<ul style="list-style-type: none"> <li>• Clearly explain the roles, actions and equipment each person or group needs to play their part.</li> <li>• Organize who needs to communicate with whom to start and keep the plan on track.</li> </ul>
<b>Monitor and Adapt</b>	<i>Identify Checkpoints</i>	<ul style="list-style-type: none"> <li>• Set checkpoints to see if the plan is working at critical points.</li> <li>• Be as descriptive and measurable as possible about expected results.</li> </ul>
	<i>Adapt Plan to Realities</i>	<ul style="list-style-type: none"> <li>• Decide what, when and why adjustments are needed and who makes the decision.</li> <li>• Communicate with people affected by changes in the plan.</li> <li>• Expect glitches and fix them quickly without blaming.</li> </ul>



1. It would be advantageous to assign reading of *The Bird Lake Dilemma* prior to the class/session so students come with a good understanding of the story.
2. After the group has read the scenario, have them complete the relevant exercise chart following it.
3. Finally, discuss their answers in the group. This may be done in small groups first, time permitting. The students will learn from each other's reflections, gain an understanding of the process of good decision making and develop commitment to it the more they work with the material.
4. The answers noted in the *Responses to Analyzing Decision at Bird* may be of assistance in filling gaps that emerge in the large group discussion.
5. Feel free, as time permits, to note other related leanings (e.g., trip planning process, clothing and equipment selection, external communications technology in remote areas).
6. Summarize the model again briefly and note the systematic method it offers for complex decision-making or problem solving. It is useful, not only in the outdoors (where its use may, in fact, be important to a person or group's survival), but in many situations in everyday life, like the ones shared by students at the beginning of the class.



## The Bird Lake Dilemma

*Read the story below and complete the chart following. Prepare to discuss your responses.*

The Byrd family arrived at the Bird Lake Wilderness Area at noon on September 20th, ready for their first fall weekend backpacking trip. The family, consisting of Jay and Phoebe Byrd, their 13-year old daughter, Robin, and 11-year old son, Martin, had taken up backpacking over the summer and enjoyed the two overnight trips they'd done. They looked forward to the fall colors.

The weather was cool, with expected daytime highs around 12°C, -5°C at night and a 40% probability of precipitation. The family was fairly well dressed, each with synthetic underwear (tops and bottoms), a pair of wool socks, hiking boots, fleece tops and rain jackets. None, however, had fleece or wool pants and all of their extra clothes were made of cotton (shirts, jeans, sweat socks). Only Phoebe and Robin had rain pants. When discussing whether to buy more clothing, they'd decided it wasn't necessary; they'd keep warm hiking and the campfire would keep them toasty in camp till bedtime. All had good quality backpacks, synthetic sleeping bags and sleeping pads. They had a big 3-season tent.

On arrival at the trailhead, they laced on boots, hoisted packs, and headed up the Bird Lake Trail. They planned to camp at the campground and return home Sunday. The terrain was easy, and despite an hour-long lunch stop, they reached camp by 5:00. They set up, made dinner, and, as a light drizzle started falling, crawled into their bags to play cards until they drifted off to sleep.

They awoke to a winter wonderland, as the rain had turned to snow and 5 cm of it now blanketed everything. It was still snowing lightly, but steadily. After a leisurely breakfast, they sat around in the tent talking. They decided to make a hot lunch before heading out, but to their dismay, Jay found that the stove wouldn't light. After a frustrating hour of tinkering with it, he gave up. Phoebe and Robin tried to get a fire going, but the wood they picked was damp and wouldn't catch flame. The family lunched on granola bars and cold water.

They were packed up and on the trail finally by 2:00. It had stopped snowing. Talking excitedly about the beauty of the new-fallen snow, the family headed out in what they thought was the direction they had come. None stopped to read the trail sign in the campground. After about an hour on the trail, Martin noted how different everything looked from the day before. The others agreed, and all felt a bit uneasy. Jay and Phoebe got out the map and compass and tried to figure out where they were. Though the two had read the chapter on navigation in their backpacking book, they were in the trees and could make out no landmarks. Pointing the compass down the trail told them that they were heading east, and they assumed this meant they were going the right way along Bird Lake Trail to the trailhead.

Everyone was relieved when they shared this information, especially Martin, who had started shivering. His upper body was damp from hiking and sweating in his rain jacket. His pant legs were soaked through from brushing against wet bushes, and water had run down into his boots. He'd changed into dry sweat socks, but they too had soaked through and his feet were now getting cold.

The group had plodded on for another half hour when they spotted a trail sign ahead and rushed to it. Arriving at it, they read, "Trailhead via Hawk Pass Trail – 9 km". "Trailhead via Bird Lake Trail – 13.8 km". They realized they had been walking in the wrong direction all afternoon. Now at almost 4:00 on Sunday afternoon, with dusk coming in a couple of hours and the temperature dropping, they faced a decision. Hawk Pass Trail was a shorter route but looking at the topographic map revealed it involved a 350-meter climb (likely in more snow). Returning by the route they had just traveled would perhaps be safer but would mean 4.8 km more distance.



Phoebe pulled out the cell phone she'd brought along for emergencies, planning to call her dad (an avid hiker) for advice, but found it dead; she was out of the phone's range. Jay sheepishly admitted he'd forgotten to call the Sparrows, the friends they usually left word with about their trips, so they could call the authorities if the Byrds were late coming out. They all looked around at each other, tired, chilled, hungry and a little scared; realizing, no one else knew where they were.

What should they do?

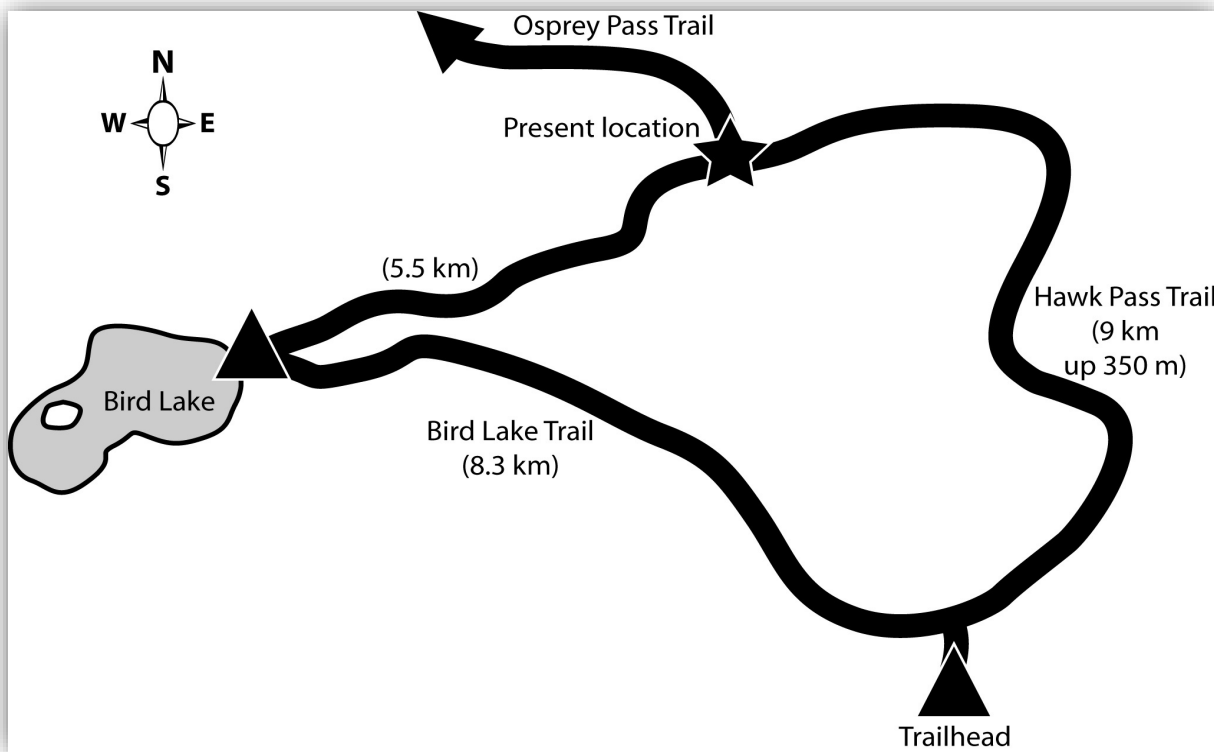


FIGURE 2 BIRD LAKE MAP



FIGURE 3 DECISION MAKING IN THE OUTDOORS

## Analyzing the Bird Lake Dilemma Exercise Chart

Complete the following chart based on your reading of *The Bird Lake Dilemma* and reviewing the map presented. Try to be specific.

<b>1. Frame the Problem</b>	
a) Identify the Problem (the difference between what is versus what is desirable)	
b) Identify the Desired Outcome (the group's goal)	
<b>2. Identify Context Considerations</b>	
a) Identify Resources (e.g., information, skills equipment, time, environment)	



b) Identify Constraints (limitations or gaps)

### 3. Formulate and Weigh Options

Option 1:

Pros:

Cons:

Option 2:

Pros:

Cons:

Option 3:

Pros:

Cons:

Option 4:

Pros:

Cons:

### 4. Select Option – Which would you pick?



<b>5. Implementation Plan</b>	
Outline your plan for implementing your selected option:	
<b>6. Monitor and Adapt</b>	
Identify two checkpoints you would use and what results you would expect to see at each to confirm success:	Checkpoint 1:
	Results Sought:
	Checkpoint 2:
	Results Sought:
Identify two potential adaptations of your plan if success is not evident at the checkpoints you noted:	Adaptation 1:
	Adaptation 2:

## Responses to Analyzing Decision at Bird Lake

Following are some potential responses students may come up with or that the teacher/leader may supplement student responses with to ensure understanding.

<b>1. Framing the Problem</b>	
a) Identification of the Problem (the difference between what is and what is desirable)	The process begins when the group realizes that it has inadvertently gotten lost and is not on the trail that will take them to the trailhead.
b) Desired Outcome (the group's goal)	To get the whole family home, safely, and as soon as possible.
<b>2. Context Considerations</b>	
a) Identifying <b>Resources</b> that can be used to help solve the problem.	<p>Some of the resources the family has at hand are:</p> <ul style="list-style-type: none"> <li>• They are all healthy.</li> <li>• They all have the same objective; getting home safely.</li> <li>• The family members are supportive of each other.</li> <li>• They now know where they are.</li> <li>• They have a tent, sleeping bags, and each other, so they will not freeze.</li> <li>• There are two trail routes out to the car.</li> <li>• They have a map and compass.</li> </ul>



<p>b) Recognizing <b>Constraints</b> (limitations which the present circumstances impose)</p>	<p>Some of the constraints present may be:</p> <ul style="list-style-type: none"> <li>• Experience and expertise of group members is somewhat low (e.g., navigation, fire lighting).</li> <li>• Weather and snow conditions are not favorable.</li> <li>• One individual already has cold, wet feet.</li> <li>• Several members of the group are wet and chilled.</li> <li>• Time of day and pending nightfall.</li> <li>• Availability of food.</li> <li>• Stove not working.</li> <li>• They haven't left emergency information, so no one will know where or when to start looking for them.</li> <li>• Their cell phone won't work.</li> </ul>
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**3. Formulating and Weighing Options**

<p>Option 1: Return to and spend the night at Bird Lake campground</p>	<p>Pros: minimal travel after dark; can follow their own tracks back Cons: will not be home tonight or at work/school tomorrow; hypothermia potential</p>
<p>Option 2: Walk out to trailhead via Bird Lake Trail</p>	<p>Pros: might get home that night; familiar trail; can follow their footprints part way Cons: longest route to travel; wouldn't get out before dark; hypothermia potential</p>
<p>Option 3: Walk out to trailhead via Hawk Pass Trail</p>	<p>Pros: might get home that night Cons: may get lost due to unfamiliarity with trail; may be more exposed to weather up higher; snow may be deeper making for slow going; hypothermia potential</p>
<p>Option 4: Remain in place and set up camp</p>	<p>Pros: minimizes risk of hypothermia or exhaustion Cons: will not get home on time; may get more snow overnight resulting in increased difficulty walking out the next day</p>



## The Grouse Lake Dilemma (Grades 9 – 12)

Don't Just Do It. **THINK!**

<b>STOP</b>	<i>Identify Problem</i>	Take stock of what is happening.  Is there a decision that needs to be made (i.e., a difference between what is and what should be)?
	<i>Define Desired Results</i>	What does a good result look like?  What are the “need-to-haves” versus the “nice-to-haves”?
<b>Consider Context</b>	<i>Identify Context Factors and Constraints</i>	What is the context within which the decision must be made: e.g. facts, assumptions, group dynamics.  What, if any, limitations/constraints do we have in any of the above?
<b>Consider Options</b>	<i>Formulate and Weigh Options</i>	Identify and explore several ways of acting to get the desired results, including doing nothing.  Brainstorm; milk out options and variations.  Keep an open mind – How you see the problem may limit good solutions.  Narrow down the options and consider the pros and cons of each of the most promising ones.  Look for a simple, effective approach that makes sense.
<b>Select an Option</b>	<i>Choose and Communicate</i>	Choose an option, using an appropriate method for the group and situation (e.g., who participates in final decision making).  Communicate the decision to those affected by it.
<b>Implement Plan</b>	<i>Initiate Action and Organize</i>	Clearly explain the roles, actions and equipment each person or group needs to play their part.  Organize who needs to communicate with whom to start and keep the plan on track.
<b>Monitor and Adapt</b>	<i>Identify Checkpoints</i>	Set checkpoints to see if the plan is working at critical points.  Be as descriptive and measurable as possible about expected results.
	<i>Adapt Plan to Realities</i>	Decide what, when and why adjustments are needed and who makes the decision.  Communicate with people affected by changes in the plan.  Expect glitches and fix them quickly without blaming.

1. It would be advantageous to assign reading of *the Grouse Lake Dilemma* prior to the class/session so students come with a good understanding of the story.



2. After the group has read the scenario, have them complete the relevant exercise chart following it.
3. Finally, discuss their answers in the group. This may be done in small groups first, time permitting. The students will learn from each other's reflections, gain an understanding of the process of good decision making and develop commitment to it the more they work with the material.
4. The answers noted in the *Responses to Analyzing Decision at Grouse Lake* may be of assistance in filling gaps that emerge in the large group discussion.
5. Feel free, as time permits, to note other related leanings (e.g., trip planning process, clothing and equipment selection, external communications technology in remote areas).
6. Summarize the model again briefly and note the systematic method it offers for complex decision-making or problem solving. It is useful, not only in the outdoors (where its use may, in fact, be important to a person or group's survival), but in many situations in everyday life, like the ones shared by students at the beginning of the class.



## The Grouse Lake Dilemma

*Read the story below and complete the chart following. Prepare to discuss your responses.*

Phoebe, Robin, Martin and Jay met up at Jay's on the morning of September 20<sup>th</sup>, loaded up his car with their gear and headed for the Grouse Lake Wilderness Area for a weekend backpacking trip. The weather at home was cool and crisp, with daytime highs around 12°C and temperatures dipping to freezing at night.

Phoebe, Robin and Jay were well dressed for the trip, wearing synthetic long underwear, fleece or wool pants and shirts, wool socks and warm, water-proofed hiking boots. All three carried extra clothing layers and good wind and raingear. They were equipped with good quality backpacks, synthetic sleeping bags and sleeping pads. Martin, however, wasn't as well prepared. Although none in the group were highly experienced backpackers, Martin had only been out once before, last summer. He'd enjoyed it but wasn't ready to spend money on good gear. At their pre-trip planning get-together, a week earlier, Phoebe had warned Martin that they would be at higher elevation on the trip and that it could be cold and could even snow. She pleaded with him to borrow or buy the things he needed. But, when they met up on Saturday morning, Martin showed up in cotton from head to toe; cotton thermal long johns, jeans, T-shirts, kangaroo jacket, and sweat socks. He had high-topped runners for footwear. In his Dad's old, ill-fitted backpack, he carried a down sleeping bag and ground sheet to sleep on. Phoebe and Robin would share Robin's tent and Jay and Martin would stay in Jay's.

The four friends were classmates at Golden Eagle College and had to be back there Monday morning. As they made the 3-hour drive to the mountains, the discussion turned to when each was expected home. It came out that none had told their parents or anyone their specific route. Phoebe allayed any concerns by saying she had her mom's cell phone and they could just call if they were going to be late. Jay turned up the radio to catch the weather forecast, which included rain at home. Martin's inadequate clothing became the topic of group discussion again, and a level of group tension emerged that would last the whole trip.

On arrival at the trailhead, the four hiked up the Grouse Lake Trail, planning to camp at the campground and return to the car on Sunday. The terrain was easy, and the group reached the campground by 5:00. They set camp, made dinner, and, as a light drizzle started falling, crawled into their bags to chat until they drifted off to sleep.

They awoke to a winter wonderland, as the rain had turned to snow and 5 cm of it now blanketed everything. It was still snowing lightly, but steadily. No one was in a hurry to move. After a leisurely breakfast, they sat around in the tents talking and playing cards. They decided to make a hot lunch before heading out, but to their dismay, Jay found that his stove wouldn't light. After a frustrating hour of tinkering with it, he gave up. Robin tried to get a fire going, but the wood she selected was damp and wouldn't catch flame. The group lunched on granola bars and cold water.

They were packed up and finally on the trail by 2:00. It had stopped snowing. Talking excitedly about the beauty of the new-fallen snow, the group headed out in what they thought was the direction they had come. None stopped to read the trail sign in the campground. After about an hour on the trail, Phoebe noted how different everything looked from the day before. Not having any tracks or signage to follow, they all watched for some indication of where, exactly, they were.

Robin had the only map and compass in the group and, as they stopped on a snack break, and Jay tried to figure out where they were. Though the two had received some basic training in orienteering, they were in the trees and could make out no landmarks. Pointing the compass down the trail confirmed that they were heading generally east and they assumed this meant they were going the right way along Grouse Lake Trail to



the trailhead. Everyone was relieved when they shared this information, especially Martin, who was shivering and complaining of cold feet. His runners were soaked through. Jay offered him a pair of wool socks, but, embarrassed by his poor preparation, he declined.

The group plodded on for another half hour when they spotted a trail sign ahead and rushed to it. Arriving at it, they read, “Trailhead via Hawk Pass Trail – 9 km”. “Trailhead via Grouse Lake Trail – 13.8 km”. Their hearts sank as they realized they had been walking in the wrong direction all afternoon. Now at almost 4:00 on Sunday afternoon, with dusk coming on and the temperature dropping, they faced a decision. Hawk Pass Trail was a shorter route to the car, but a glance at the topo map revealed it involved a 350-meter climb, likely in more snow. Returning to the trailhead by the route they had just traveled would perhaps be safer but would mean 4.8 km more distance. It would be dusk in two hours.

Phoebe pulled out her cell phone she'd brought along for emergencies, planning to call her dad (an avid hiker) for advice, but found it dead; she was out of the phone's range and it wouldn't work. Jay sheepishly admitted he'd forgotten to call Sparrows, the friends they usually left word about their trips, so they could call the authorities if the group were late coming out. They all looked around at each other, tried, chilled, hungry and a little scared; realizing, no one else knew where they were.

What should they do?

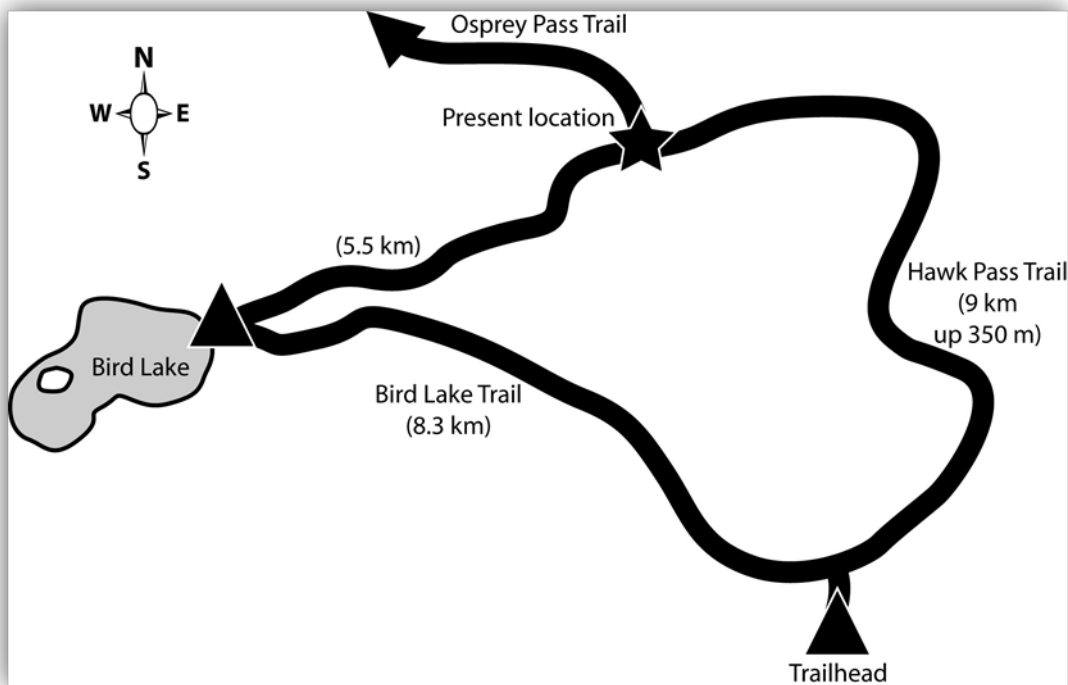


FIGURE 4 BIRD LAKE MAP

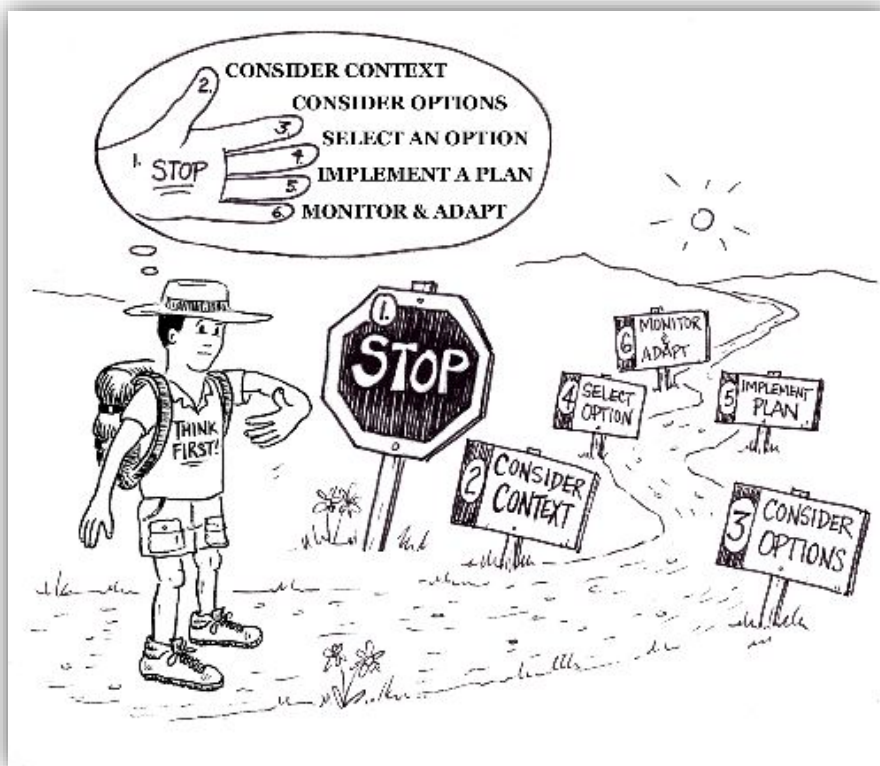


FIGURE 5 DECISION-MAKING IN THE OUTDOORS

## Analyzing the Grouse Lake Dilemma Exercise Chart

Complete the following chart based on your reading of “The Grouse Lake Dilemma” and reviewing the map presented. Try to be specific.

<b>1. Frame the Problem</b>	
a) Identify the Problem (the difference between what is versus what is desirable)	
b) Identify the Desired Outcome (the group’s goal)	
<b>2. Identify Context Considerations</b>	
a) Identify Resources (e.g., information, skills equipment, time, environment)	



b) Identify Constraints (limitations or gaps)	
---	--

**3. Formulate and Weigh Options**

Option 1:	Pros:  Cons:
-----------	--------------------

Option 2:	Pros:  Cons:
-----------	--------------------

Option 3:	Pros:  Cons:
-----------	--------------------

Option 4:	Pros:  Cons:
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**4. Select Option – Which would you pick?**

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**5. Implementation Plan**

Outline your plan for implementing your selected option:
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<b>6. Monitor and Adapt</b>	
Identify two checkpoints you would use and what results you would expect to see at each to confirm success:	Checkpoint 1:
	Results Sought:
	Checkpoint 2:
	Results Sought:
Identify two potential adaptations of your plan if success is not evident at the checkpoints you noted:	Adaptation 1:
	Adaptation 2:



## Responses to Analyzing Decision at Grouse Lake

Following are some potential responses students may come up with or that the teacher/leader may supplement student responses with to ensure understanding.

<b>1. Framing the Problem</b>	
a) Identification of the Problem (the difference between what is and what is desirable)	The process begins when the group realizes that it has inadvertently gotten lost and is not on the trail that will take them to the trailhead.
b) Desired Outcome (the group's goal)	To get the whole group home, safely, and as soon as possible.
<b>2. Context Considerations</b>	
a) Gathering the Facts (information that can be confirmed by an independent observer; objective truths)	<p>Some of the facts are:</p> <ul style="list-style-type: none"> <li>• There are two trail routes out to the car.</li> <li>• One individual is dressed in cotton and running shoes.</li> <li>• Their equipment includes two tents, sleeping bags, a map and compass, a dysfunctional stove, and a cell phone that is out of range.</li> <li>• They have to be at school on Monday.</li> <li>• They have left vague emergency information.</li> </ul>
b) Reviewing Assumptions (information and/or beliefs of the decision makers that cannot be immediately proven or verified)	<p>Some of the assumptions might include:</p> <ul style="list-style-type: none"> <li>• The weather will remain seasonably unpredictable.</li> <li>• It will be a while before anyone starts looking for them.</li> <li>• Their parents will worry if they don't come home on time.</li> </ul>
c) Understanding Values (the influence of those ideas, beliefs and goals that the group considers most important to success or survival)	<p>Some of the values of this group might be:</p> <ul style="list-style-type: none"> <li>• Commitment to the survival of all group members.</li> <li>• Concern for families' feelings and emotions.</li> <li>• Sense of responsibility to school and teachers.</li> </ul>
d) Recognizing Constraints (limitations which the present circumstances impose)	<p>Some of the constraints present may be:</p> <ul style="list-style-type: none"> <li>• Weather and snow conditions.</li> <li>• Time of day and pending nightfall</li> <li>• Availability of food.</li> <li>• Experience and expertise of group members.</li> </ul>
e) Noting Group Dynamics (the impact of the circumstances on individual morale and the ability of the group to function as a unit)	<p>Some factors involving group dynamics might be:</p> <ul style="list-style-type: none"> <li>• The least prepared member ignored the advice of more experienced members.</li> </ul>



	<ul style="list-style-type: none"> <li>• One member has cold, wet feet but is reluctant to accept help.</li> <li>• There has been tension in the group due to the individual arriving unprepared.</li> </ul>
<b>3. Formulating and Weighing Options</b>	
<p>Option 1:</p> <p>Return to and spend the night at Grouse Lake campground</p>	<p>Pros: minimal travel after dark; can follow their own tracks back</p> <p>Cons: will not be home tonight or at school tomorrow; hypothermia potential</p>
<p>Option 2:</p> <p>Walk out to trailhead via Grouse Lake Trail</p>	<p>Pros: might get home that night; familiar trail; can follow their footprints part way</p> <p>Cons: longest route to travel; wouldn't get out before dark; hypothermia potential</p>
<p>Option 3:</p> <p>Walk out to trailhead via Hawk Pass Trail</p>	<p>Pros: might get home that night</p> <p>Cons: may get lost due to unfamiliarity with trail; may be more exposed to weather up higher; snow may be deeper making for slow going; hypothermia potential</p>
<p>Option 4:</p> <p>Remain in place and set up camp</p>	<p>Pros: minimizes risk of hypothermia or exhaustion</p> <p>Cons: will not get home on time and family will worry; may get more snow overnight resulting in increased difficulty walking out the next day</p>



## Lesson 3. Outdoor Risk-taking

### Goal

To help students recognize and understand some of their own risk-taking propensities outdoors and become motivated to modify hazardous attitudes or behaviours.

### Objectives

1. Students can explain the ways that human subjective hazards contribute to incidents in the outdoors.
2. Students can identify what, if any, potential tendencies they have that may affect their safety and that of their peers when they are engaged in outdoor activities.
3. Students can identify specific steps they will take to reduce their exposure to any unnecessary risks.

### Overview

The lesson revolves around a survey questionnaire that the students fill out. Completing it, analyzing and discussing the results will help students appreciate that not all people perceive risk in the same way. Some are attracted to the very risks that others are terrified of. This may be due to differences in the levels and types of past experience with the risk and/or similar risks, the sense of control the individual has in managing the risk, and level of appreciation of the real consequences of failing to manage the risk appropriately (likelihood and severity of injuries anticipatable). Risk assessment, it appears, is often much more an emotional than a rational process.

This lesson focuses on the subjective risks that people bring to the outdoor activity situation. The knowledge, beliefs, values, and attitudes people have about outdoor risks helps determine the risks they will choose to accept and those they will reject. Young people are also barraged with media messages, peer pressure and other social influences that encourage them to take recreational risks, including some risks they are not adequately trained or equipped to handle safely. The more a student is able to recognize and assess these personal and social influences, the more likely they are to act appropriately in situations that include real risk.

### Materials

The teacher/leader may choose to use any or all of the activities provided in this section to reinforce the concepts presented.

- The *Forced Choice Game* (Grades 5 - 8).
- The Outdoor Risk-taking Profile (Grade 9+).
- Score sheets (Grades 5 -8 or Grade 9+ version).
- Human Hazards: A Primer of Some of the Real Risks Outdoors (Grades 5 - 8 version or Grade 9+ version).
- Initiating Smart Risks Games
- Follow-up exercises.



## Lesson Delivery

### Introduction

Initiate the lesson by asking the students these hands-up questions.

1. *Why do we take risks?*

Taking risks is an essential part of living, learning new skills, improving old ones, growing as a person, becoming part of a social group, and having fun.

2. *What are some of the risks you have you taken today?*

We all take risks, every day, often without even thinking about it because we do it so often we simply accept the risk as necessary to living our lives. Sometimes, the **real risk** is different than the **perceived risk**. For example, while we perceive that riding in cars, a very common activity, is very safe because we do it so often, in actuality, the real risk is quite high compared to most other things we do. In 2012 in Canada, 2077 people were killed in road crashes. In 2013, 269 people died in car crashes in BC and about 54,000 more were injured.

Sometimes the real risk in a sport or outdoor pursuit activity that seems very dangerous to those of us who have never done it, is actually quite low for people who have trained in it and who carefully prepare themselves. The injury and fatality rates of most outdoor activities, even when accounting for participant hours, is typically lower than time spent in vehicles on our roads.

In our recreation, we all seek out or avoid risks based on our personal understandings of the risks present and our comfort level with these risks. The following activity may help you find out a bit more about your own risk taking outdoors.

Play the *Forced Choice Game* (Grades 5 - 8) or do the *Outdoor Risk Taking Profile Exercise* (Grades 9 to 12). *The Initiating Smart Risks Game* (Grades 3+) is also an option.



## Forced Choice Game (Grades 5 - 8)

### Game set-up

1. Establish the playing area. A field where they run to one side or the other is great or a gym or even classroom with desks moved will do. Of course, normal modes of transportation (e.g., hopping, skipping, etc.) may be introduced for variety as the environment and instructor's imagination permits. Walk or use another SLOW mode if in the classroom or other confined space.
2. Identify the two "side zones" with pylons, ropes, ribbons, etc.
3. Start the group in the middle.
4. Read *Introduction* paragraph.
5. Read *Play the Game* section and play on.
6. After each item, have the students score one point (first column items) or no points (second column items) and add up their points as they go along. To avoid responder bias, mix up which response goes which direction and which response is read first.
7. After playing the game, hand out the score sheet and follow-up exercises.

### Play the Game

#### Introduction

*Taking smart risks and being aware of and honest about our natural tendencies is an important part of our growth and enjoyment of many life experiences outdoors and elsewhere. This game may help you understand some of your related tendencies. You will not be graded on this exercise; it is for your own use. The questions below can be applied to any outdoor pursuit activity or natural environment you participate in. It may be easiest to select a single activity you like doing and respond with that in mind. This may involve something you have done with school, a club or organization, your family, your friends, and/or on your own. Answer the questions as honestly as you can. Have fun with it!*

**Note to Teacher/Leader:** Go to *Forced Choice Game* and then go to *Interpret the Results of the Game*.

#### Interpret the Results of the Game

*Hand out interpretation sheet.*

**Tell Students:** *First, total your score out of 10. Now looking at the chart determine which category of risk taker your score falls in, based on your Grand Total Score. Are you a mole, otter, coyote or wolverine? Pause to allow students to read and determine animal.*

*Let's look at each item in relation to the ten most common risk-taking tendencies of youth.*

Review each item from the *Human Hazards: A Primer of Some of the Real Risks Outdoors* and then the matching descriptive paragraphs. Item one in the game relates to hazard one on the list, item two to hazard two, etc., so relate each item from the game as you go along so the students can see what specific risks they were more inclined to accept.



## Forced Choice Game

I will read out several sets of statements. After I read each set of statements, circle the score for the one that best describes how you see yourself at this point in time.





I often wing it outdoors. <b>Score: 1</b>	I always prepare carefully. <b>Score: 0</b>
Outdoor risks are easy to manage. <b>Score: 1</b>	Outdoor risks are hard to manage. <b>Score: 0</b>
I like being "on the edge" outdoors, unsure if I'll succeed. <b>Score: 1</b>	I only do things outdoors I know I will succeed at. <b>Score: 0</b>
I stick to the agenda. <b>Score: 1</b>	I never rush to meet time goals. <b>Score: 0</b>
I like being challenged by my friends outdoors. <b>Score: 1</b>	I am very comfortable saying "No". <b>Score: 0</b>
I take greater risks in the outdoors with other than when I am alone. <b>Score: 1</b>	I carefully choose the risks I take, whether alone or not. <b>Score: 0</b>
I like to compete when on trips. <b>Score: 1</b>	I never compete on outdoor trips <b>Score: 0</b>
I can handle any situation outdoors. <b>Score: 1</b>	I need a lot more training to be safe outdoors. <b>Score: 0</b>
My mind often wanders when I'm traveling outdoors. <b>Score: 1</b>	I am always totally focused outdoors. <b>Score: 0</b>
The teachers/leaders are responsible for my safety outdoors. <b>Score: 1</b>	I am responsible for my own safety outdoors. <b>Score: 0</b>

Add up your points to get a total out of 10.

My Grand Total



## Interpreting My Score

Score		Remarks
0 - 2		<b>Mole</b> – quiet, unadventurous. You tend to be very highly safety-oriented. You may miss out on some opportunities for outdoor adventure but are highly unlikely to become a statistic. Find well-structured opportunities to PARTICIPATE, LEARN AND GROW OUTDOORS.
3 - 5		<b>Otter</b> – active and playful, but usually quite safe. You generally make good choices regarding risks. You appreciate subjective risks outdoors and tend to act safely and responsibly. Get training in new activities and environments as these interest you. Continue to learn and to TAKE SMART RISKS.
6 - 8		<b>Coyote</b> – prone to wandering outside your safe “range”. Your score suggests that you may not have a full appreciation of risks outdoors and/or to overestimate your abilities in relation to these risks. Look at the particular subjective risks you are predisposed to, create plans to reduce these, and most importantly, GET MORE TRAINING.
9 - 10		<b>Wolverine</b> – completely fearless; you’ll take on anything, regardless of the real risks. You tend to pay very little attention to the potential for harm to yourself and/or others. LOOK carefully at the sources of risks you take. ACT TO CHANGE YOUR APPROACH. Either that, or, buy A LOT of insurance!

Based on my score, I tend to be a (circle one): **Mole** **Otter** **Coyote** **Wolverine**

The game is meant to be a fun activity that helps us learn about some of the ways we may contribute to our own safety in the outdoors. It is based on social science research about how and why young people take the risks they do.



## Human Hazards: A Primer of Some of the *Real* Risks Outdoors (Grades 5 – 8)

Following is a brief listing and description of the ten most common subjective hazards young people bring to outdoor activities/environments. Let's look at where you got your points today.

1. **Overconfidence/Complacency.** Acting with an inaccurate image of the match between one's skills and the real demands of the situation. This is a common problem whenever skills fast outdistance training and experience. Complacency is a product of boredom, distraction, lack of awareness and/or failure to reassess old habits. It can result in even very competent people making errors on simple, routine tasks.
2. **Poor Risk Perception/Risk Appreciation.** The more familiar, controllable, routine, pleasant, predictable and avoidable a risk is, the less risk one may perceive. Conversely, if the risk cannot be managed or controlled, or if the risk and/or its consequences are particularly horrific, the individual tends to perceive more risk.
3. **Inappropriate Goal-setting.** Sometimes, people overestimate the individual's or group's ability to complete a given route (e.g., incorrectly assuming sufficient skills and/or fitness), failing to clarify conflicting goals, and show an inability/unwillingness to revisit goals as the circumstances change. Objectives such as routes, summits or timelines need to remain flexible, while goals such as safety, learning and staying together as a group are timeless.
4. **Impatience and Schedules.** The time limits we have at home are often inappropriate and even dangerous in the outdoors. Having tunnel vision or summit fever (let's get to the top at all costs), or "barn door syndrome" (rushing to get off the trail near the end of a trip) can all lead to incidents.
5. **Peer Pressure.** Peer pressure is related to the powerful desire to gain approval by living up to others' expectations. People fear loss of face, and/or ridicule; often as much as the objective risks present in the activity and environment. Resistance requires brutal honesty in self-evaluation and the courage to respect one's limits.
6. **Risk Shift.** The risk shift phenomenon occurs when people operating in a group take risks that individuals in the group would not otherwise take. Taking risks indicates courage and forcefulness and is generally more highly valued than hanging back. People believe themselves to be more willing to take risks than others around them. In the group, when this belief is dispelled, the whole group shifts, as a group, to riskier, more socially desirable behavior. This occurs without any overt pressuring of individuals.
7. **Inappropriate Competition.** Challenge is an essential ingredient of growth and learning, except when competition itself becomes the goal, and the importance of the process is lost. It is also not uncommon for some people in a group to act competitively in outdoor travel (e.g., always having to be first in line) and living situations rather than cooperatively; the more appropriate strategy for group success.
8. **Immortality.** It is not uncommon for young people to fail to draw a direct causal link between risk-taking and injuries/fatalities, particularly to themselves. They see themselves as invincible; rather than as human and mortal, capable of error and susceptible to illness and injury.
9. **Distraction.** May be the result of short-term issues that develop over a trip or longer-term ones that individuals bring from home. They may also result from inattentiveness due to socializing rather than attending to the activity and/or environment, or other causes.
10. **Abdication.** Some people who feel that others in the group (teachers/leaders/peers) have more knowledge, skill and/or experience in the activity and/or environment may simply defer decisions regarding their safety to these others. They assume that if they make a mistake, someone will save them before anyone gets hurt.



## Human Hazards: A Primer of Some of the *Real* Risks Outdoor (Grades 9 – 12)

Following is a brief listing and description of the ten most common subjective hazards young people bring to outdoor activities/environments. Let's look at where you got your points today.

1. **Overconfidence/Complacency.** Acting with an inaccurate image of the match between one's skills and the real demands of the situation; a failure to recognize where the outside of the envelope is. This is a common problem whenever skills fast outdistance training and experience. Complacency is a product of boredom, distraction, lack of awareness and/or failure to reassess old habits. It can result in even very competent people making errors on simple, routine tasks.
2. **Poor Risk Perception/Risk Appreciation.** The more familiar, controllable, routine, pleasant, predictable and avoidable a risk is, the less risk perceived. Conversely, if the risk cannot be managed or controlled, or if the risk and/or its consequences are particularly horrific, one tends to perceive more risk.
3. **Inappropriate Goal-setting.** Sometimes, people overestimate the individual's or group's ability to complete a given route (e.g., incorrectly assuming sufficient skills and/or fitness), failing to clarify conflicting goals, and show an inability/unwillingness to revisit goals as the circumstances change. Objectives such as routes, summits or timelines need to remain flexible, while goals such as safety, learning and staying together as a group are timeless.
4. **Impatience and Schedules.** The time limits we have at home are often inappropriate and even dangerous in the backcountry. Having tunnel vision or summit fever (let's get to the top at all costs), or "barn door syndrome" (rushing to get off the trail near the end of a trip) can all lead to incidents.
5. **Peer Pressure.** Peer pressure is related to the powerful desire to gain approval by living up to others' expectations. People fear loss of face, social isolation, and/or ridicule; often as much as the objective risks present in the activity and environment. Resistance requires brutal honesty in self-evaluation and the courage to respect one's limits.
6. **Risk Shift.** The risk shift phenomenon occurs when people operating in a group take risks that individuals in the group would not otherwise take. Taking risks indicates courage and forcefulness and is generally more highly valued than conservatism in our society. People believe themselves to be more willing to take risks than others around them. In the group, when this belief is dispelled, individuals then shift, en masse, to riskier, more socially desirable behavior. This occurs without any overt pressure.
7. **Inappropriate Competition.** Challenge is an essential ingredient of growth and learning, except when competition itself becomes the goal, and the importance of the process is lost. It is also not uncommon for some people in a group to act competitively in outdoor travel (e.g., always having to be first in line) and living situations rather than cooperatively; the more appropriate strategy for group success.
8. **Immortality.** It is not uncommon for outdoor recreationists, particularly adolescents, to fail to draw a direct causal link between risk-taking and injuries/fatalities, particularly to themselves. They see themselves as pillars of vitality and competence; invincible rather than as human and mortal, capable of error and susceptible to illness and injury.
9. **Distraction.** May be the result short-term issues that develop over a trip or longer-term ones that individuals bring from home. They may also result from inattentiveness due to socializing rather than attending to the activity and/or environment, or other causes.
10. **Abdication.** Some individuals who feel that others in the group (teachers/leaders/peers) have more knowledge, skill and/or experience in the activity and/or environment may simply defer decisions regarding their safety to these others. They assume that if they make a mistake, someone will save them before anyone gets hurt. This error may extend to over-reliance on map/guidebook/other people's words rather than cross-referencing information.



## Human Hazards Outdoors Related Activities

*The art of life is not to reduce the risk to zero, but to take the right amount of risk. – Gerald Wilde*

### Goal

The goal of these activities is to help students learn more about how they and others take risks in a group and how this affects their and the group's safety and success.

### Materials

- *Outdoor Risk-Taking Lesson* (see above)
- List of *Initiative Tasks*
- List of *Human Hazards: A Primer of Some of the Real Risks Outdoors* from above (relevant to age group involved)
- Contract(s) if and as desired (from this lesson or from Lesson 6)

### Initiative Tasks/Games

Initiative games or tasks can be used to focus learning on any number of objectives. The purpose of the following activities or games is to have a group use their own initiative to discover solutions to problems posed. The clearly defined tasks are challenging both physically and mentally, requiring interaction and cooperation among students. Various group and leadership functions will become apparent within and among the tasks. Debriefing the group interactions after a group of tasks is completed will help the group and individuals discover many of their own leadership qualities, and risk tolerances. Because our focus is risk, the questions posed in the facilitating and debriefing will relate to risk. Just as in life, individuals will learn as much from failure as from success. The tasks described here have been chosen because they require very few or no props, are relatively low in physical risk, and may be adjusted to the amount of time available. Successful games and activities are led by enthusiastic, attentive and imaginative teachers/leaders. Prepare to explain the task and step back to watch the group without interference, offering encouragement throughout the process. (Refer to *Initiative Tasks / Trust Activities* in *Safety First! Guidelines for BC School Off-site Experiences* for guidelines related to running initiative tasks.)

### Directions

Initiate the games lesson by asking the students the hands-up questions from the beginning of the *Outdoor Risk Taking Lesson* (e.g., *Why do we take risks?*)...

### Introduce Human Hazards

If you have not already done so, introduce a few of the human hazards on the age-relevant version of the *Human Hazards: A Primer of Some of the Real Risks Outdoors*. With younger students, you may only want to introduce a couple or three elements in one session, while with older groups, you may be able to successfully introduce more elements and have the students keep them in mind as they play and then debrief the initiative tasks they will do. You can come back at a later date and introduce a few more elements, until all have been covered, as you wish.

To introduce human hazard elements, you may provide the students a handout and/or put each element to



be covered on a slide, flipchart, or poster so all can see it. For each element, use the text provided (or your own wording) to describe it, and provide an example or have the students share an example.

For an older group, you may have each of a number of human hazards and their respecting descriptions included on slips of paper (just print the ones you want to use and cut them out so one slip has one hazard and its description). Then each student can draw one human hazard and its description out of a hat and explain to the group the one they drew, paraphrasing what they read in their own words.

### **Instructions to the students:**

*You are going to play some games that involve risk taking. These games are called initiative tasks. Initiative tasks involve problems you will have to solve as a group. I will explain each problem in turn. Your job is to try to accomplish the task. No disrespectful behavior (put-downs) allowed, and each task must be accomplished without anyone getting hurt “NO LEAKS!” – bleeding).*

Provide additional directions, rules and/or more spotting where students are performing tasks up off the ground.

### **Facilitating and Debriefing Smart Risks Activities**

#### **Contracts**

We may enhance the learning process by having the group acknowledge a Contract. Individuals who extend themselves out of their “comfort zone” by taking a risk are able to grow both mentally and physically. By starting our games with a “Contract” we build on trust, encouraging students to step out of their comfort zone, and enabling them to identify and take some risks. In order for students to buy in to the games, there can be two contracts, one for the students, and another for the leaders.

Sample contracts may sound like this:

**Students’ Contract:** Students to read out loud together:

*“We agree to have trust in one another, consider all suggestions, and fully participate in all challenges in a spirit of fun and cooperation. We agree to initiate smart risks.”*

**Leaders’ Contract:** Teachers/leaders read out loud:

*“We agree to make the games as fun and challenging as possible, listen to your concerns and adapt tasks if necessary. We agree not to make it too easy!”*

Throughout the games, continue to remind students of the “Contract” to ensure they are honoring the intent of the contract. Learning about risk may be enhanced by having students verbally identify some aspects of risk periodically during the games (e.g., is a particular option being considered safe or not and why or why not).

(Refer to Lesson 6 *Student Rights and Responsibilities Contract* for more on contracts.)

Following a few warm-up exercises, pose this question to the group, “*How might human hazards contribute to an incident while doing these tasks?*”



Students can each select one hazard from the “Human Hazards” list appropriate for their age. This could be accomplished by drawing one from a hat or some other fun method. The hazards included should be ones the students have been introduced to.

After a few Initiative tasks are completed, pose this question to the group.

*“How could my hazard (the one previously discussed) affect the outcome of this task (or a situation if this were a field-trip instead of a game)?”*

1. After a few more tasks, pose this question to the group.

*“How could my hazard be avoided?”*

2. In a final Debriefing exercise, have students address one or more of the following:

- a) *One tendency I have which may affect the safety of myself or my peers while taking part in outdoor activities is...*
- b) *Two steps I will take to reduce the likelihood of an incident, include \_\_\_\_\_ and \_\_\_\_\_.*
- c) *One strength I have because of the way I handle risk is \_\_\_\_\_.*
- d) *Something I like, admire, or appreciate about \_\_\_\_\_ (another person the group) in relation to the way they manage risk is \_\_\_\_\_.*

## Initiative Tasks/Games

### Warm –up Tasks

As with any physical activity it is best to start off with some simple warm-up activities.

### Spotting Practice

Explain the basic principles of spotting. Describe and demonstrate the Spotters Stance; i.e., stay close to the person you are spotting, concentrate on what the person is doing, place your feet shoulder width apart with one forward and one back, and keep your knees bent to absorb the shock of a falling person. The spotter does not “catch” the person’s full weight, only works to help the person from hitting his or her head or landing on the ground in an awkward position.

### Trust Lean

This is good spotting practice. In groups of three, identify two people as the spotters and one as the leaner, The leaner stands in the middle with one spotter in front and one behind. The leaner stands very stiff with arms crossing the chest, and tips back and forth while the spotters practice “spotting”. The spotters gently pass the leaner back and forth.

### Trust Circle

Similar to the Trust Lean with 8-10 spotters who form a tight circle facing inward. Each student takes a turn in the centre. Remaining rigid with arms crossed, the student closes his/her eyes and leans backward. The catchers gently pass the student around the circle with their hands while the person in the centre pivots on his/her feet.

### Blind Walk

One partner leads another who has eyes closed, on a walk over, under and around obstacles. After five minutes switch so the partner has a turn at being blind. Emphasize going slow and being very mindful of the



'blind' person's safety. Blind walks may be done using oral communication from the guide to the blind person, or with no verbal communication allowed.

### **Blind Geometry**

With eyes closed, have the group form a perfect square, triangle, rectangle, etc. all the while holding a long loop of rope.

### **Happy Landings**

In pairs, one partner is the pilot, the other the blind sailor. The pilot guides the blind sailor through a "channel" of obstacles by voice only.

### **Yurt Circle**

The group stands in a circle holding hands and numbers off in 1's and 2's. The teacher/leader announces when the 1's lean in and the 2's lean out trying to balance each other. Once accomplished, alternate so the 2's lean in and the 1's lean out.

### **Balance Broom**

The student holds a broom or stick vertically, the handle over his/her head, and looks up. He/she spins around 10 times then puts the broom down and steps over it. This can involve extreme dizziness and requires spotters on either side of the student.

### **Sardine Walk**

Tie the group together around the outside loosely using a length of rope. The group must move over and under obstacles to a destination. (To make it more challenging, have students close their eyes).

### **Data Processing**

The group is to arrange themselves in a line from shortest to tallest, or youngest to oldest, or by birthday within a year, without talking, and with their eyes closed.

### **Knots**

The group forms a circle facing inward while standing. Members close their eyes, raise their right arm, and reach out in front to grab the hand across from them. Repeat the same with the left. The task is to untangle the knots without letting go, until a full circle has been formed once again.

### **On the Box (or) On the Board**

The group (of no more than 10 students) must arrange themselves "on" a small (very sturdy plastic) box or on a piece of wood roughly 30 cm (1 foot) square by 2–4 cm (1–2") thick, with no body parts touching the ground or any other prop. The team must sing a short song while on the box or board! Good joke potential using a board; everyone wants to be on a 'Board', don't they? You can make up a name for the 'Board' based on the class or group.

### **Bears Claw**

The group is given a piece of tape or chalk. The object is to get a mark as high up on a tree or wall as possible. The whole team must be involved.

### **Trust Fall (from a height)**

Spotters stand in spotter's stance close together, shoulder-to-shoulder, arms outstretched with palms up and alternating (zippering) with partner across in line; keep heads and torsos back. The "faller" stands on a



strong table or other platform, holds arms tight to his/her sides or across the chest, closes eyes and keeps body stiff while falling backwards into the waiting arms.

### **Cookie Machine**

From the Trust fall, with the “faller” still lying on their arms, the “catchers” move their arms in a circular motion moving the body along like on a conveyor-belt. They can chant the name of that person’s favorite cookie, for example, “chocolate chip, chocolate chip, chocolate chip” until the “cookie” comes to the end of the conveyor and is helped down by the teacher/leader who stands at the head end to ensure the person’s feet touch ground and the person is steady on their feet, before letting them go.

### **Trust Dive (forward from table).**

Having first mastered the Trust Circle and Trust Fall from a height, the “diver” does a two-footed dive from a solid table into the hands of the “catchers”. It is very important that the diver does not swing his/her arms in any way, but just holds them above the head. The “catchers” must move a short distance away from the jumping platform.

### **Electric Fence**

The group is given a pole of 8-10 cm in diameter to assist their transportation across an electric fence (a rope tied between two trees). There is no “jumping” or “throwing people” over the fence. The electric fence, of course, continues for millions of miles in both directions and a force field extends below. The pole may not touch the fence, nor may they use the trees in any way. The teacher/leader and other members must be diligent to spot each person on their way across the fence. Any person electrocuted must start again.



## Outdoor Risk-taking Profile (Grades 9 – 12)

### Take the Survey

Have each student work through the individual *Outdoor Risk-Taking Profile* survey. When the survey is complete, have each student calculate his or her Grand Total score.

### Interpret the Results of the Survey Exercise

Hand out interpretation sheet for the Survey Exercise.

*The survey is meant to be a fun activity that helps us understand some of the ways we may contribute to our own safety or potential harm in the outdoors. It is based on a lot of social science research about how and why young people take risks in their recreation.*

*First, determine which category of risk taker your score falls in, based on your Grand Total Score. Are you a mole, otter, coyote or wolverine?*

*Second, put an (\*) beside specific survey items you scored a 1 or 2 on. To analyze these items, consider your potential exposure to the following people/process risks. While there are always other explanations possible, each subjective people/process related risk is associated with the survey item of the same number.*

Review the *Human Hazards: A Primer of Some of the Real Risks Outdoors*. A slide could be made of each of the ten points, and/or a handout for the students. Keep the numbers on the paragraphs as these relate specifically back to the Outdoor Recreation Risk Profile activity. Relate back to each item as you go through them.

### Follow-up Exercises

A page of follow-up exercises has been provided to help students form specific intentions and action plans for addressing any higher risk behaviour tendencies they identify over the Game or Profile activities.

If you have an outdoor trip coming up, as an alternative to having students write down three things they'll do to move from where they are to where they'd like to be, you could have them identify their specific plans for dealing with each item they scored a 1 or 2 on, to ensure they avoid possible incidents caused by those particular risks. Sample strategies may include identifying cues to self-assess; self-reminders (e.g., mantra); enlisting a buddy to provide support and/or feedback and/or teacher/leader to provide support/feedback.



## Outdoor Risk-Taking Profile

Taking smart risks and being aware of and honest about our natural tendencies is an important part of our growth and enjoyment of many life experiences outdoors and elsewhere. This exercise may help you understand some of your related tendencies. You will not be graded on this survey; it is for your own use.





The questions below can be applied to any outdoor pursuit activity or natural environment you participate in. It may be easiest to select a single activity you like doing and respond with that in mind. This may involve something you have done with school, a club or organization, your family, your friends, and/or on your own. Answer the questions as honestly as you can. Have fun with it.

1.	I like to “wing it” in the outdoors; to take minimal gear and figure things out myself as I go along.	1	2	3	4	5	I like to be very well prepared for outdoor pursuits activities; I follow instructions carefully.
2.	Hazards in the outdoors are really obvious so they can always be managed.	1	2	3	4	5	Hazards in the outdoors are only knowable with careful study and attention; they are hard to manage.
3.	I take on big challenges outdoors where I am not sure I will succeed; I like being “on the edge”.	1	2	3	4	5	I only take on activities outdoors I am completely sure I will succeed at; I dislike feeling at risk.
4.	I stick to the agenda and always meet time goals on trips outdoors.	1	2	3	4	5	I take my time when I’m outdoors; I never rush to meet time goals.
5.	I like going into the outdoors with friends who push me to take risks I wouldn’t otherwise take.	1	2	3	4	5	I am very comfortable saying “No” to my friends; I never do anything I feel pressured to do by them.
6.	I take greater risks in the outdoors when I’m with friends than I would otherwise.	1	2	3	4	5	I am very careful to choose the risks I take, whether I am alone or with others.
7.	I like to compete with my peers outdoors; e.g., I’m usually at the front so we all know I am the strongest and fastest.	1	2	3	4	5	I never compete when on outdoor trips, e.g., I don’t care where I am in the group at all.
8.	I have the knowledge and skills to handle any situation outdoors. I could plan and do a trip alone or with friends.	1	2	3	4	5	My outdoors knowledge and skills are very limited. I need a lot more training before doing a trip alone or with friends.
9.	I like to let my mind wander when I’m traveling outdoors; to think about other things on the trip or at home.	1	2	3	4	5	I stay completely focused on what I am doing when I’m outdoors; I am always totally in the moment.
10.	When I am on a school outdoor trip, the teachers/leaders are completely responsible for my safety.	1	2	3	4	5	When I am on a school outdoor trip, I am completely responsible for my own safety.
	<b>Column Totals</b>						
	<b>Grand Total</b>						

See the *Interpreting my Score* sheet to determine your risk-taking tendencies.



## Interpreting My Score

Score		Remarks
40-50		<b>Mole</b> – quiet, unadventurous. You tend to be very highly safety-oriented. You may miss out on some opportunities for outdoor adventure, but are highly unlikely to become a statistic. Find well-structured opportunities to PARTICIPATE, LEARN AND GROW OUTDOORS.
30-39		<b>Otter</b> – active and playful, but usually quite safe. You generally make good choices regarding risks. You appreciate subjective risks outdoors and tend to act safely and responsibly. Get training in new activities and environments as these interest you. Continue to learn and to TAKE SMART RISKS.
20-29		<b>Coyote</b> – prone to wandering outside your safe “range”. Your score suggests that you may not have a full appreciation of risks outdoors and/or to overestimate your abilities in relation to these risks. Look at the particular subjective risks you are predisposed to, create plans to reduce these, and most importantly, GET MORE TRAINING.
10-19		<b>Wolverine</b> – completely fearless; you’ll take on anything, regardless of the real risks. You tend to pay very little attention to the potential for harm to yourself and/or others. LOOK carefully at the sources of risks you take. ACT TO CHANGE YOUR APPROACH. Either that, or, buy A LOT of insurance!

Based on my score, I tend to be a (circle one): **Mole** **Otter** **Coyote** **Wolverine**



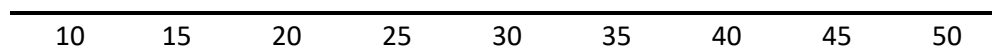
## Survey Exercise Follow-up

Put an (\*) beside specific survey items you scored a 4 or 5 on. To analyze these individual items, consider your potential exposure to the list of subjective risks below. While other explanations are possible, each subjective risk is associated with the survey item of the same number.

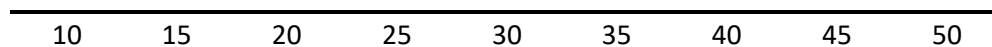
Sources of Subjective Risk	
1.	Overconfidence
2.	Poor risk perception/appreciation
3.	Inappropriate goals
4.	Impatience with schedules / Tunnel vision
5.	Peer pressure
6.	Risk Shift
7.	Inappropriate competition
8.	Sense of immortality
9.	Distraction / Inattentiveness
10.	Over-reliance on others / Abdication of personal responsibility

## Action Planning

1. Draw a vertical line through the horizontal line below at a point that corresponds to your Grand Total Score:



2. Draw a vertical line through the horizontal line at a point that corresponds with where you would like to be overall.



3. Write down three things you will do to move from where you are to where you'd like to be?

1.	
2.	
3.	



## Lesson 4. Taking Smart Risks

*There is no security on this earth. Only opportunity. – Douglas MacArthur*

### Goal

To help students recognize, understand and be able to apply the key considerations involved in being prepared and being aware when engaging in outdoor pursuits activities.

### Objectives

1. Students can state four key messages for risk assessment and management.
2. Students can apply the messages to a particular activity of interest.

### Overview

The lesson revolves around the four key messages (based on SMARTRISK) and their application to a class/group activity of choice or an activity of the student's choosing.

### Lesson Delivery (set up as above)

#### Introduction

Initiate the lesson by asking the students these hands-up questions:

1. *What are "smart risks"?*

*Smart risks are risks that are appropriately challenging for you. To improve in an activity means that you have to take some calculated risks; starting with easy skills and slowly moving on to harder ones. The trick lies in picking risks that are fun and exciting, but not so big you can't handle them and you or someone else gets hurt. In the outdoor activity context, taking big risks you aren't prepared for can have truly disastrous outcomes, including severe injury or even death.*

*Before taking on a risk, you should ask yourself, "Is this a smart risk?" Consider the likelihood that you or someone else might get hurt, and how badly? If the chance of injury is high, and/or if the injury is likely to be serious, you should reconsider taking that risk. This is the process of drawing the line between what is a smart risk in this situation and what is not.*

*As you gain experience, you'll get more and more practice choosing which risks to take and which to avoid. You'll get better and faster at making good decisions and drawing your "smart risk line" in a variety of situations. You'll make your own choices, based on your knowledge, skills, experience and intuition. You'll be able to say "No" to others who encourage you to cross the line. You'll be able to choose appropriate means to getting to where you want to go, like taking more training, getting the right gear, and checking the conditions.*

*You will be learning good judgement, an essential element of being competent in the outdoors where situational variables (like the environment, activity and group) are constantly changing. Good judgement involves considering available information and weighing the costs and benefits on the scale of your past experience and intuition to arrive at a positive outcome.*



## Risk Homeostasis

*Humans appear to have a built-in "thermostat" regarding risk taking, called risk homeostasis. We each, it appears, seek to maintain a level of risk that balances out the benefits (e.g., fun) and costs (e.g., injury) of risky behavior as well as the benefits (e.g., enhanced reputation) and costs (e.g., time loss) of safe behavior. At any moment in time, we are not trying to minimize risk, but to optimize it. We each compare the amount of risk we sense with our perceived optimal level of risk and adjust our behavior in an attempt to eliminate discrepancies that arise between the two. For example, mandatory seatbelt legislation, anti-lock brakes, air-bags, and driver training; all innovations designed to reduce traffic fatalities, have failed because drivers have simply adjusted their driving behaviors (e.g., driving faster, following closer behind other vehicles, driving more carelessly) to maintain the perceived ideal balance between safety and risk.*

*The only activities likely to reduce inappropriate risk-taking are incentive programs that increase the perceived benefits of safe behavior choices. What are some ways we can reward safe behaviors in our school field trips? (Students raise hands and share examples they think of; e.g., verbal praise, free time, treats, good marks.)*

2. *What are your favorite outdoor pursuit activities? (Students raise hands, teacher selects several to share their answers.)*
3. *Which of these activities do you consider risky? (Select one mentioned by a student, or focus in on an activity the class is involved in)*
4. *What are the risks involved in (name of activity) \_\_\_\_\_?*
5. *What are some of the things we do to reduce the risks involved in \_\_\_\_\_ when we're doing it?*



## SMARTRISK Messages

In Canada, we have a foundation called **SMARTRISK** (see [www.smartrisk.ca](http://www.smartrisk.ca)) that develops programs to help people learn to take good risks, including in their recreation activities. SMARTRISK surveyed youth and developed a program that includes four key messages for those participating in skiing, snowboarding and snowmobiling (see the **SNOWSMART** program; at [www.snowsmart.ca](http://www.snowsmart.ca)).

YouthSafe Outdoors adaptation of these messages can be applied to any outdoor pursuit activity, summer or winter, to reduce the chances of getting hurt. The key messages are:

KEY MESSAGES	
<b>Get Trained</b>	Take a course to learn how to do the activity safely; then, do the activity only up to the level you've been trained for
<b>Wear the Gear</b>	Wear appropriate clothing and equipment, including helmets and other safety gear; buckle up for the drive
<b>Look First</b>	Check weather and conditions before going; assess risks over the activity and work to minimize them
<b>Stay Sober</b>	Avoid alcohol and drugs when involved in the activity and when traveling to and from it

**Note:** Teacher may choose to omit Stay Sober message for students up to and including Grade 7.

*The most important thing to remember is to listen to your “inner voice” when making choices in your recreation. Your safety comes down to you being able to make intelligent decisions regarding your own safety, as well as that of your companions. Having the confidence to use all your knowledge, experience and intuition to assess a situation and make a good choice is what it is all about!*

### **Application of Key Messages to Taking Smart Risks Exercise**

Distribute the Application Exercise (see the *Student Resource*) sheet to the students for them to complete. You may identify a single activity for the group to focus on or allow students, alone or in small groups, to select an activity they are interested in and respond appropriately.

**Clarifications:** *“Wear the gear” does not mean writing out a long, detailed list of items to take on the trip. Focus on key items necessary for safety and on proper use (e.g., if PFDs or helmets are suggested, note that they need to fit properly and to be properly done up). Similarly, “Look First” does not mean writing out all the potential hazards involved, but a few key examples that are common to everyone participating in the activity (e.g., if canoeing, checking the weather and water level before going, and looking downstream to avoid hazards like rocks and sweepers).*

Upon completion, have the students share some examples from their work to ensure they have the concept of each message and have understood how to apply it.

Review the key messages again:

**Get Trained, Wear the Gear, Look First and (for Grade 8+) Stay Sober.**



## Taking Smart Risks

Name of outdoor pursuit activity:

Three risks involved are:

1.

2.

3.

In this activity, I manage these three risks as follows:

I Get Trained:

I Wear the Gear:

I Look First:



## Lesson 5. Gearing Up for Outdoor Adventure

*I love to go a-wandering*

*Along the happy track.*

*And as I go, I love to sing*

*My knapsack on my back. "The Happy Wanderer" by Bill Staines*

### Goal

To enhance students' safety and enjoyment of outdoor pursuits by imparting their knowledge, attitudes and skills related to selecting, using and taking care of clothing, equipment and supplies relevant to outdoor pursuits participation.

### Objectives

1. Students can distinguish between clothing equipment and supplies.
2. Students can identify, explain and provide examples of the five ways humans lose heat.
3. Students can define hypothermia and identify factors that contribute to it.
4. Students can define and explain the layering system of clothing and provide examples of clothing items that fit in each layer.
5. Students can locate, select and bring appropriate clothing, equipment and supplies for a school field trip (as per a checklist provided.).
6. Students can explain and demonstrate appropriate care, maintenance and cleaning of gear used over a field trip.

### Materials

- Gearing up for Outdoor Adventure handout.
- Gear list for upcoming class trip.
- Samples of selected gear items for illustration and/or demonstration.
- Students' gear for upcoming class trip.



## Cool Dude Concepts

### Some Basic Cool Dude Definitions

**Gear:** Clothing, equipment and supplies to support safe, enjoyable participation over an outing or activity.

**Clothing:** Items worn on the person (or carried for later potential wearing) warmth, protection and comfort over the outing or activity.

**Equipment:** Non-clothing items used or carried that may be used repeatedly over a trip and from trip to trip without being consumed (e.g., sunglasses, tent, paddle).

**Supplies:** Items that are consumed/used up and need to be replaced on relatively frequent basis (e.g., sunscreen, hand soap/sanitizer, insect repellent).

### Managing the Cool Dude Micro-climate

**Hypothermia** occurs when the body loses more heat than it can generate or preserve. Hypothermia is the most common cause of unintentional death in the outdoors.

**Hyperthermia** occurs when the body is subjected to and/or creates more heat than it can get rid of.

**Thermoregulation:** Several factors affect your body's ability to regulate the temperature of its core (e.g., internal organs, especially the heart, lungs, and brain.), and periphery (e.g., skin, skeletal muscles and appendages). Of these, the overall metabolic fine-tuning of the body is most affected by the core temperature.

### Cool Dude Heat Loss

Put up slide or, if in the field, hold up picture on the page *Gearing Up for Outdoor Adventure* (just the picture). You can give the students a copy of the whole page as a take-home handout later.

Hands-up Question:

1. *Looking at the picture of this cool dude (he does look chilly in his skivvies) puzzling over what to take, what are five ways his body could be losing heat?*

Some possible answers might include:

1. Standing on cold ground
2. Touching cold ski
3. Wind or air conditioning blowing air past body
4. Radiating heat through exposed skin
5. Sweating, if it's warm and/or he is anxious
6. Breathing in cold air and/or out warm air



## Gearing up for Outdoor Adventure

**Gear is a constant:** Regardless of where a group goes, what activity it is doing and how long it will be out, there will be a need for appropriate clothing, equipment, and supplies including emergency tools and supplies (e.g., first aid, survival and repair kits). You are responsible for choosing what you will and will not carry. The lists provided identify optimal gear, considering safety, weight and bulk. Take time to consider each of the items suggested. What could happen if you don't have a particular item? Inadequate clothing, equipment, supplies, or safety items could seriously affect your health and safety, or that of your friends, while carrying too much 'stuff' can negatively affect your experience. Learning to maintain and repair your own equipment is an important part of outdoor experiences and can bring you a sense of mastery and independence related to the activity you won't have otherwise. And, approached in the right spirit, it can be fun too.

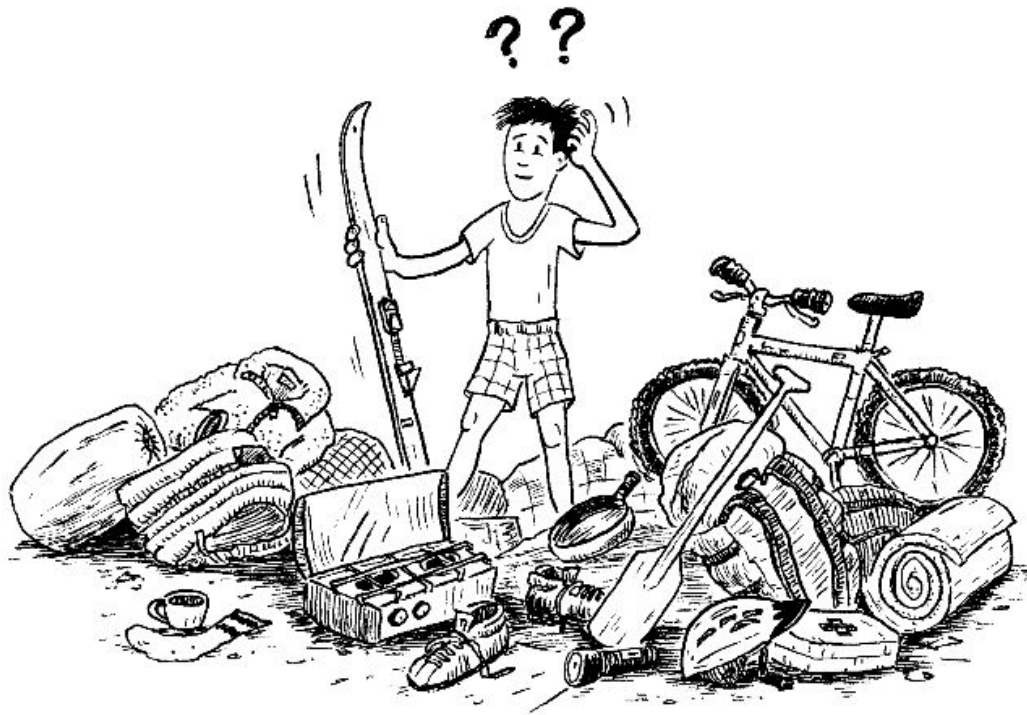


FIGURE 6 GEARING UP FOR OUTDOOR ADVENTURE

**Before the Trip:** Identify and select appropriate types and quantities of gear. Lie out your clothing, equipment and supplies, and check off the items on your list to ensure you have everything you need. Check that items are in good, working condition before packing them. Repair or replace items as appropriate before the trip.

**On the Trip:** Take care of your gear. Avoid breaking or losing items. Monitor use of supplies so they last the duration of the outing.

**After the Trip:** Clean (as appropriate) and dry out all clothing and equipment to avoid mold and mildew. Replace expended supplies (e.g., first-aid kit items used). Store away for your next adventure.



## Heat Loss Mechanisms:

- Conduction
- Convection
- Radiation
- Evaporation
- Respiration

**Conduction** is the transfer of heat through direct contact.

- Sitting in snow results in body heat being transferred to the snow.
- Water conducts heat way 25 times faster than air, so avoid sweating up your clothing.

**Convection** is the transfer of heat through the movement of air across the body; e.g., wind-chill.

- Wear a layer that is wind resistant or wind proof if air temperature is cool or cold and/or if you are moving quickly through the air (e.g., cycling).
- Water convection occurs more rapidly than air convection; something to consider if cold water immersion is a possibility.

**Radiation** involves the movement of heat from the body to the environment due to the presence of a temperature gradient (warm body to cooler environment).

- Hats or toques and scarves/tube scarves help reduce radiant heat loss from blood vessels close to the skin.

**Evaporation** involves heat loss when perspiration sitting on the skin converts from liquid to vapor. Sweating helps us lose excess heat on a hot day, which is a good thing, but becomes a problem if it results from overdressing while active on a cooler day. The sweat becomes trapped in the clothing and contributes to additional heat loss through conduction.

**Respiration** involves the body heating air that is breathed in (which requires more energy on a cold day) and breathing out warm, moist air on exhalation, further removing heat from the body.

- Wearing a facemask on a cold day can facilitate some pre-warming of cold air before inhalation.
- Monitoring exertion level to reduce respiration rate and depth can help reduce energy expenditure.

## Managing the Microclimate

Humans must maintain a suitable artificial environment close to the skin that allows for the retention of generated body heat. This is our microclimate.

A body regulates its microclimate through five **mechanisms**:

- **Behavioral response** - e.g., putting on/or taking off clothes.
- **Activity modification** - e.g., moving faster/slower.



- **Shivering** - a short-term means of generating heat through chemical reactions required for muscle contraction.
- **Respiration** - evaporative cooling.
- **Vasodilatation/Vasoconstriction** - increase or decrease in peripheral blood flow (e.g., vasodilatation results in cooling the body while vasoconstriction results in reduced heat loss).

## Factors That Affect Body Temperature Regulation

- Cold air or water temperature
- Inadequate quantity/quality of clothing and equipment used
- Wetness
- Dehydration
- Fatigue
- Inadequate caloric intake
- Alcohol/drugs (vasodilators)
- Ignorance of temperature regulation

## Dress for Success

### Layering

Since humans lack the coats of fur of most of our warm-blooded animal brethren, the key to effectively dressing for safety and comfort in outdoor activities lies in application of **layering**. Layering simply means wearing a number of items of clothing, one over the other, adding or subtracting items as desired. The key advantage of layering is that protection can be added or subtracted incrementally to balance heat generation and heat loss. Also, dead air (the next best insulator to a vacuum) is trapped within and between layers for additional insulation, with no added weight to carry.



## The Three Cool Dude Layers

**Ventilation** - next to the skin, thin, porous material serves to hold in heat while wicking, perspiration away (e.g., polypropylene underwear).

**Insulation** - thicker layers that trap more air yet are able to dissipate moisture further away from the body (e.g., fleece pullover).

**Protection** - a layer of material that is sufficiently wind and/or water resistant to protect the body from the elements; ideally porous enough to allow water vapor (perspiration) to escape (e.g., wind shell, rain gear).

## Master Layering Through the Rule of Befores!

Add a layer(s) *before* you get cold and remove a layer(s) *before* you start sweating. Bring sufficient extra clothing layers, as well as adequate head, hand and footwear to manage your microclimate.

### Extensions

Some ways to help students learn what types and quantities of clothing are suitable in general or for a pending excursion include:

- Show'n Tell different clothing items, sharing the pros and cons of each;
- Doing a fashion show;
- Bringing in a pile of possible clothing items and having the students work in groups to dress up a model in their group for a different activity and season (this can be made into a fun relay activity);
- Having students bring in the clothing they plan to bring on a pending trip and discuss the strengths and weaknesses of their wardrobe.
- Teacher can check each student's gear in relation to checklist. Identify items that are needed for satisfactory preparation and check back that these are secured before the trip.
- In pairs, students could develop their understanding further by critiquing each other's clothing according to the criteria shared in class and doing a check sheet or writing out what they'll improve and how before the class trip.

### Equipment and Supplies

Similarly, cover, as appropriate, the items on a trip gear list. Show samples, explain operation, care, maintenance and cleaning as relevant. Check student owned items at least several days prior to the trip to ensure they are adequate for class use.



## The Smarty Pants Game

### Goal

The goal of the game is to help students learn and reinforce their understanding of concepts, principles and definitions related to bringing the right gear and staying warm and dry outdoors.

### Materials

Set of “Smarty-Pants” cards. Print the deck of cards from the linked file. Use stiff coloured paper/cardstock and cut out. You may want to laminate your set of cards to keep them waterproof. Tip: clear MACTac applied on both sides of each card, including a small margin all around each card, works great and is inexpensive.

### Overview

This game may be played after introducing and discussing the key concepts, principles and definitions provided above, or, with older groups, the students may be simply provided a handout of this content and given ten minutes to read it over and ask any questions for clarification. They may use the handout as reference as needed during the game.

In this game there is one deck of cards: The Smarty-Pants Cards. The deck has 24 different cards with a question relating to the “Cool Dude” concept information provided above. (Refer to Notes to Teachers/Leaders for information on Games Leadership; who goes first, games atmosphere and points allocation).

### Rules for the Smarty–Pants Game

#### What’s the Point?

Maintaining a comfortable body temperature (or being a “Cool Dude”) is an important part of being at ease in the outdoor environment. This game is a fun way to learn how humans lose heat, and how to dress appropriately for various weather conditions. The game is intended to be short and lively, and can be played just about anywhere, so Ham it up; the more absurd, the more fun.

#### How to Play the Smarty Pants Game

The game can be played as teams or as individuals. Each player or team makes up a unique a buzzer sound to use when ready to answer a question. You can start the questions with “Fingers on your buzzers . . . The question is . . .” and then pick the player who buzzed first to guess. If that player answers incorrectly, go on to another player from another team, until the question is answered correctly. The player who answers the question first and correctly gets a point for his or her team. Incentives like a “Smarty” for the fastest buzzer can encourage participation. The person/team with the most points at the “end” wins. The game can end whenever you run out of time to ask more questions. The winning team becomes the “Cool Dudes”, “Cool Dudettes” or “Cool Dudes ‘n Dudettes” if a mixed-gender team.



## Lesson 6. Student Rights and Responsibilities Contract

*Leave nothing but footprints, take nothing but photographs, change no one but yourself.* – Unknown

### Goal

To have students perform consistently with a code of conduct they agree to.

### Objectives

- Students can define what their “rights” and “responsibilities” are in the outdoor context.
- Students participate in the development of an appropriate Student Rights and Responsibilities Contract.
- Students can define what being “on contract” means.
- Students can explain how functioning “on contract” contributes to the safety of themselves and the group and to the success of the trip.
- Students can distinguish when they are functioning “on contract” and when they are not.

### Materials

- Visual medium so students can develop or review draft contract items (e.g., Smartboard, whiteboard, computer and monitor, flipchart).
- Student Rights and Responsibilities Contract form.
- Student Rights and Responsibilities Contract Items.

### Content

#### Introduction

Appropriate conduct on a trip is as important to its safety and success as thorough trip planning, good outdoor skills and/or quality leadership. A leader cannot lead if the followers will not follow. A Student Rights and Responsibilities Contract helps establish the group’s operating norms. These norms need to be fair to all, consistently applied, and subject to change when they no longer serve the group. If students are to be committed to adhering to the contract, they should be active participants in its development.

**Note to Teacher:** Having students develop and agree to adhere to a Student Rights and Responsibilities Contract does not negate the duty of care the teacher/leader has to exercise appropriate leadership, supervision and group management over an off-site experience.

#### Definitions

Provide definitions or have the students assist with defining the terms Rights, Responsibilities and Contract.

**Rights** - *privileges or benefits one has just claim to express.*

**Responsibilities** - *obligations or duties one is answerable for meeting.*

**Contract** - *a formal agreement among individuals.*



## Setting the Tone

As the Teacher-in-charge, you will set the tone for students to act “on contract”.

Things you may do to help set the tone include:

- Communicate, communicate, communicate! Ensure understanding, if not consensus, on the objectives of the trip.
- Plan, prepare and lead “on contract”; perform duties in a caring, respectful manner. Be considerate of the physical needs of participants (e.g., adequate fluids, food, rest, shelter, warmth) and their emotional needs (e.g., love, support, encouragement, reaffirmation).

## Review the Elements of the Student Rights and Responsibilities Contract

Go through the parts of the contract (see *Student Resource* for sample form) on a slide and note how the sample provided is much like the contract one would use to buy a car or a house or engage someone to do some work for them. Note that a big part of the contract is still missing. This is the part where the student(s) will decide what it is they are prepared to agree to; what their rights and responsibilities will be to ensure the group stays safe and has a positive, successful experience.

## Instructional Strategies and Materials

**Timing:** Do the *Student Rights and Responsibilities Contract* before leaving on the trip (travel time counts too). Bring it along and have students carry their copies. You may want to photocopy reduced copies of it for the students and laminate them or have the students tape them into their notebooks for ready reference. Revisit the contracts over the trip and during final debriefing as relevant.

## Strategies

After presenting information for students to understand what rights and responsibilities and contracts are, have them brainstorm or otherwise generate their own *Student Rights and Responsibilities Contract* items as a group. The list of sample items provided in the *Support Resource* may be used in several ways. For example, from most to least time consuming:

- To provide you, the teacher, with sparks where needed and/or with wording as students brainstorm their own list,
- The entire list or a appropriate subset of it (you’ve selected) may be provided as a model for the students to react to in generating their own list, or
- In a formal prioritization exercise; e.g., the list to be considered is posted (the full list or a subset you’ve selected) and briefly discussed. Each student comes up and assigns 5 points to the item they most want to see included, 4 for the next most, etc. Down to 1 point, to provide support for the 5 items most important to him or her. Once all have voted, the numbers are totaled for each item and the top picks (perhaps a number equal to the students' grade up to ten; avoid too many to remember) are highlighted with an (\*) as selected. If the group may be inclined to come up with more rights than responsibilities, you may set up the exercise with two separate lists (rights and responsibilities) and have them vote separately on each to ensure a balance.



Enter these items (cut and paste electronically from the *Support Resource*) into the contract form in the *Student Resource*. Rights and responsibilities can be separated or lumped as desired. Prepare the copies and distribute them for students to fill in their particulars, sign and witness. Formality increases commitment.

## Being “On Contract”

Define the term:

**Being “On Contract”** means having an awareness of the interrelationships of all participants and a sincere intent and sufficient character to act in the best interests of the self and others.

Discuss what being “on contract” is and what it looks like in the context of the particular group, activity and environment involved. *It means that each individual is actively fulfilling all of the elements identified on the contract form; recognizing that by doing so, he or she will meet the general goal of being “on contract” defined above. Being “off contract” means acting in a manner inconsistent with the wording, spirit and/or intent of the contract and its elements.*

Discuss what being “off contract” is and what it might look like in the context of the specific group, activity, and environment involved.

Ensure understanding and an ability to apply the contract items to the particular trip context it was designed for. To do this, ask the students to come up with an example of what someone might be doing or not doing to be “on contract” for several or all items.

## Contract Follow-up Strategies

- **Journal-writing** offers students the opportunity to reflect daily on situations where they were “on contract” and those where they were “off contract”. They may be tasked with noting specific plans for addressing areas where they find themselves “off contract” frequently and then reflecting on their success in following through.
- **Debriefing**, either summary (e.g., a daily occurrence in camp or on the trail) or terminal (end of trip) offers a good opportunity to revisit the contract itself. Students can be asked questions like:

What did you like about having a contract?

What didn’t you like about having a contract?

Did you find it easy or difficult to adhere to and why?

Would you write it differently now, based on your experience in the field?



## Student Rights and Responsibilities Contract

It is my intention to participate in the: *(Name of class or group)*

trip to/on: *(Name of location/route)*

Date Departing: *(Month/Day/Year)*

Date Returning: *(Month/day/Year)*

In relation to this trip (i.e., preparation for, during, and follow-up from), I agree to assume the following rights and responsibilities:

Date Signed: *(Month/day/Year)*

Signed at: *(City, Province, Country)*

Student Signature *(first and last name)*

Witness Signature *(first and last name)*



## Sample Student Rights and Responsibility Contract Items

- I will speak only for myself and not for others.
- I will treat other group members and others encountered with respect even when I don't agree with their behaviors or viewpoints.
- I have the right to be treated as a respected individual and to express my opinions, thoughts and feelings without being judged for them.
- I will not talk about others or what was discussed or disclosed by other group members, except where the safety of one or more group members is at risk.
- I have the right to choose whether or not I participate in specific activities that threaten my personal sense of physical or psychological safety.
- I have the right to "pass" during group discussions.
- I have the right to request and receive physical/emotional support from the group.
- I have the right not to be exposed to undue pressure from other group members.
- I have the responsibility to provide other group members with physical/emotional support I have the capacity to give.
- I have the responsibility not to pressure others into doing things they don't want to do.
- I have the right to make mistakes.
- I will ask for what I need and want.
- I will strive to take appropriate risks that support my personal growth and learning.
- I will strive to avoid taking unnecessary and dangerous risks that threaten my safety and/or that of the group.
- I will be accountable for my words and actions.
- I will wear clothing and equipment that contribute to my safety.
- I will take care of my clothing and other gear.
- I will do my share of the work that needs to be done to achieve the program objectives.
- I will maintain good personal hygiene practices (for my own and others' health and comfort).
- I will be organized and on time for activities.
- I will be conscious of offensive or annoying habits and work to minimize their impact on others.
- I will try hard not to sweat the small stuff.
- I will do the things I need to do to make this a positive experience for me and for everyone else.



## Lesson 7. Simulations

*You'll always miss 100% of the shots you don't take. – Wayne Gretzky*

### Goal

To provide students an opportunity to problem-solve in a realistic outdoor scenario.

### Objectives

- Students demonstrate knowledge, skills and attitudes to solve problems in the field.
- Students respond appropriately even when confronted with the feelings and sense of urgency that a simulated accident or incident evokes.
- Students can explain and illustrate the need for leadership, pre-trip planning and preparation, risk reduction and emergency response capacity.
- Students demonstrate the capacity to organize themselves and to mobilize resources available (e.g., people, equipment, supplies) to handle a problem effectively and efficiently.
- Students demonstrate creative thinking and improvisation.
- Students demonstrate a sense of mastery and confidence in solving problems on their feet.
- Students can explain and illustrate the need for them to seek additional training to improve their capacity to handle incidents and accidents.

### Materials

- Sample Simulation or What If? Problems.
- Equipment and supplies needed as props to support the creation and/or response to the simulation(s).

### Definition

A simulation is an “arranged incident” designed as a training and/or assessment tool. The staged event may involve any of a wide variety of “problems” to resolve; e.g., an injury accident, infliction of a purposeful injury (e.g., a staged fight), or another incident, including almost any problem one could reasonably encounter in the outdoor group travel context (e.g., equipment failure, lost participant, a personal problem (e.g., pack too heavy), an interpersonal conflict). See list of *Sample Simulation or What if? Problems*.

### Lesson Delivery

Simulations must be carefully planned to be successful and impactful. A simulation can be assigned to the whole group, a sub-group, or an individual (e.g., student Leader-for-the-Day). It may involve risk assessment, risk reduction and/or emergency procedures.

### Safety Considerations

- Students should be forewarned prior to the outing that a simulation(s) will be given and told again at the time they are confronted with one. Consider the potential for passers-by encountering the group;



especially any “casualties”. Also, students providing emergency response need to know it is only an exercise so they stop short of soliciting external help from search and rescue agencies or passers-by.

- Engaging students in simulated rescues/emergency responses may expose them to some real risk of injury, especially when inexperience combines with panic or an excessive sense of urgency interferes with the exercise of good decision-making. Poor judgement or carelessness can result in real injury of the “rescuer” and/or individuals acting as casualties. Think through the potential responses of the rescuers and either design the scenario to minimize real risk or warn students of risks, which may not be obvious to them. Constant visual supervision of the simulation is appropriate, and teacher intervention, if necessary for safety.

### **Type of Incident**

- Consider the group, the program/activities and the environment in selecting an appropriate problem(s). Making the simulation relevant to the real group, activity and environment ensures the greatest potential for impact on the students; the sense that, “This could really happen.” Also, the problem should be sufficiently complex to challenge them; to require some time, critical thinking and utilization of resources to arrive at resolution.

### **Setting up the Simulation**

- Consider the level of preparation and training of the students in designing the simulation. Give novices relatively simple problems/scenarios; e.g., first aid simulations with only one or two “casualties”, each with relatively minor injuries.
- Select a problem that is manageable in a relatively short period of time (e.g., 10-15 minutes); sufficient time to get well immersed, but not so long that the exercise drags or students start doing things beyond their training.
- A “plant” in the group can be used to increase the complexity; e.g., becoming hysterical, giving bad suggestions, or otherwise interfering with or distracting the leader/group.
- If setting up a search and rescue simulation, remember that these can take a long time to resolve, particularly if errors are made. It may also be difficult to supervise all of the participants adequately over such an exercise. Ensure students are adequately trained and select appropriate terrain for this type of simulation.
- Ensure that those playing “casualties” understand their role and can/will act seriously and convincingly. Discuss “what ifs” with them and alternative responses (e.g., if they raise your legs, cover you and provide reassurance, you start talking with them).
- If there is any chance that the casualty may actually become endangered (e.g., actually becoming hypothermic laying on snow), give them a signal to use periodically to confirm they are okay (e.g., a code word or hand signal) versus waiting till they are in trouble to indicate such (they may not be able to by that point).
- The carrying of a casualty (e.g., on an improvised stretcher) is generally extremely difficult and time-consuming, particularly if over rough or steep terrain; students can rarely appreciate how hard this task is until they’ve tried it over a hundred meters or more. Such a problem highlights the need for conservative risk-taking outdoors.



- Plan a realistic way of getting the other leaders and supervisors “out of the way” (e.g., having them be casualties or tied up dealing with a different incident) or specify their roles (e.g., silent observers), so the student(s) must handle the problem.
- Observe the simulation from beginning to end, for safety and to facilitate debriefing later. Keep quiet unless it becomes necessary to intervene on a safety issue.

### **Debriefing the Simulation**

The debriefing of a simulation is at least as important as the exercise itself, so avoid doing a simulation unless it can be adequately debriefed. The process may vary, but some suggested components include the following:

- Air feelings

“I felt happy/hopeful/confident when...”

“I felt frustrated/angry/inadequate when...”

- Identify Factual Chronology

who did what when

what happened (avoid analysis)

- Analysis

stay positive

use a framework (e.g., see Accident/Incident Debriefing)

- Learnings

What insights do you have about yourself, the group and incident response?

What would you do differently for a better/faster resolution?

What additional training would you most like to have?

What gear is missing or inadequate if the situation had been real?



## Lesson 8. The What If? Game

### Goal

To increase awareness of risks and problem-solving capacity in the field.

### Objectives

- Students demonstrate awareness, appreciation and ability to react appropriately to the range of risks present in the group, activity and environment.
- Students demonstrate the knowledge, skills and attitudes to solve problems in the field.
- Students respond appropriately even when confronted with the feelings and sense of urgency that a simulated accident or incident evokes.
- Students demonstrate the capacity to organize themselves and to mobilize resources available (e.g., people, equipment, supplies) to handle a problem effectively and efficiently.
- Students demonstrate a sense of mastery and confidence earned through solving problems.
- Students can explain and illustrate the need for leadership, pre-trip planning and preparation, risk reduction and emergency response capacity.
- Students demonstrate creative thinking and improvisation.
- Students can explain and illustrate the need for them to seek additional training to improve their capacity to handle incidents and accidents.

### Materials

- Sample Simulation or What If? Problems.

### Content

#### Description

The *What if?* Game is a way of cognitively working through potential problems and their solutions without taking the time to simulate these. While losing some of the potential emotional impact of a realistic simulation and the opportunity to develop or assess the technical and interpersonal skills involved, the game allows several potential problems to be covered in the same amount of time as it would take to organize and run a single simulation. Consider the time available and group and program objectives; perhaps both instructional strategies can be accommodated over the trip.

#### Setting up the Game:

- The game may be played in the classroom before going on the trip, on the road, on the trail (e.g., at a lunch stop) or in camp. A new problem could be presented daily as an assignment for thinking about, writing down and/or discussing later.



- The whole group may be given the same problem to work on, sub-groups may be formed with each group working on a different problem, or each student may be given a unique problem to solve. Arrangements are completely flexible and there is no shortage of potential problems to hand out.
- Students could be partnered, with one responsible for generating a “What if?” problem for their partner to solve and then discussing the solution proposed before switching roles. This reciprocal approach helps expand the range of potential problems students will become aware of, as they work to create a good problem for their partner.
- Encourage students to imagine themselves in the circumstances described. Require them to work through the problem to a thoroughly articulated, adequate resolution, verbally or in writing. Don’t settle for quick, unconsidered answers. Ask questions like:

What are the relevant facts?

What is the undesired outcome?

What is/are the nature of the hazard(s); place, practices/procedures, people/process?

What assumptions are you making?

What knowledge or skills do you have that you would apply?

What constraints (limitations) do you have to contend with?

What equipment or supplies would you need to execute your solution? Do we have those things here? Is anything missing you would need?

What would your first priority be? Why? Your second priority...?

Who, if anyone would you contact for external assistance? How would you reach them?

How would you gauge success in solving the problem? What does the ideal outcome look like?

The above list of questions could be modified into a checklist for the students’ use while addressing the problem presented. Simpler wording could be adopted for younger age groups.

- Only when satisfied that the student(s) have really thought through the problem, demonstrated sufficient understanding and articulated a thorough, appropriate response, should the episode of the game be concluded. Some of the questions used for debriefing simulations may provide useful applications for follow-up here, in combination with the questions posed above.
- As an optional activity, a class could brainstorm a **What To Do – What Not To Do** chart in response to a problem from the list.



## Sample Simulation or What If? Problems

### Potential Simulation Or What If? Problems include:

- Student forgot raingear and it starts to rain.
- Student gets a tick on their neck with its head embedded.
- A grizzly bear is sighted crossing the trail 100 m ahead of the group.
- Student forgets medications and has an asthma attack.
- A tentmate snores loudly and you can't sleep.
- A plane crashes/crash lands near the group's location.
- A student becomes snow-blind.
- A student suffers a serious sunburn.
- Two students are daring a third student to jump from a height.
- A stream marked crossable on the map is in flood and too high to cross.
- A stream marked crossable on the map is in high water, but crossable.
- A student slices open her thigh while carving on a stick with a knife.
- Two tent mates are verbally fighting over messing up the living space.
- Two students are play fighting, one falls in the campfire and his clothes catch fire.
- A student's hands are seriously scalded when a pot of boiling water spills.
- A student is leaning over the stove he is lighting, and it flares up, burning his face.
- One small group's camp stove won't work.
- A tent zipper won't close and it's really buggy out.
- A student went berry picking and hasn't come back for dinner.
- Two students took off ahead of the group and didn't stop at the lunch spot.
- Your tentmates brought a bottle of hard liquor and they are getting drunk in the tent.
- One pair of students can't/won't keep up with the group on a canoe trip.
- A student's backpack belt clasp breaks on day 2 of a 6-day backpack.
- A student is playing on a rolling log, slips and breaks her arm.
- A student drinks untreated creek water and gets very ill; a full day's hike in.
- The water pump you brought to purify water is clogged and won't work.
- A bike breaks down on your mountain bike tour (pick a bike part); two days in.
- A student's bad knee is acting up and she is hobbling along under her pack.
- A vehicle has a mechanical breakdown on a remote road.



- A student rolls his ankle on some loose scree.
- A student wearing only cotton clothing becomes hypothermic.
- A student who is obese and really out of shape is lagging well behind on the ski tour.
- You hit a spot on the trail with avalanche/rockfall potential and no easy way around.
- You are caught in an avalanche.
- A member of your group is caught in an avalanche.
- A canoe upsets in your group
- Your canoe upsets in cold moving water.
- Your canoe upsets and you end up stranded on an island alone with no gear.
- A pair of poorly prepared canoeists floating by tip in front of your camp.
- A student is too scared to cross a log bridge over a river.
- A student insists on keeping her cosmetics in the tent at night vs. up the bear pole.
- Several students leave the group to take a bushwhacking shortcut to the next camp.
- You come to a junction in the trail and no one is there to identify which way to go.
- Other “what ifs” as your group, program, activity, environment and imagination suggest...



## Lesson 9. Survival

*"Men wanted for hazardous journey,  
Small wages, bitter cold, long months  
of complete darkness, constant danger,  
safe return doubtful. Honor and recognition  
in case of success." – Ernest Shackleton*

### Goal

To increase students' survivability by impacting their knowledge, attitude and skills related to wilderness survival.

### Objectives

- Students demonstrate awareness of the potential for survival situations to occur in British Columbia.
- Students can identify and explain the seven enemies of survival.
- Students demonstrate awareness of and commitment to carrying appropriate survival gear whenever they venture into wildland areas and can identify relevant items to carry.
- Students can identify and explain the content of and rationale for carrying a handy tool to help them avoid ending up in a survival situation but improving their chances of successfully surviving if they do end up in one. They demonstrate a willingness to carry this tool when appropriate.

### Materials

- Survival Card (Appendix B).

### Why Worry About Survival?

If available, share a specific, recent survival story involving someone from your area; ideally youth. Examples can be found in the newspapers or on the net.

*People often figure, "I'm only going out for the day. I'll be back for dinner, so I don't need to be thinking about being out overnight or longer." In BC, we have had dozens of simple daytrips turn into overnight or longer survival episodes:*

- A day hiker sprains an ankle badly and is unable to walk out,
- Mountain bikers have an bike break down late in the day a number of kilometers into the backcountry; assuming a daytrip only, they are carrying no overnight equipment or supplies,
- Canoeists tip and lose their boat and gear (imagine standing on the side of the river, soaking wet, with only the stuff you have in your pockets to survive),
- A snowboarder goes out of bounds at a ski resort and ends up lost some kilometers away from the ski area, in deep snow with night coming on fast,



- A camper wanders out of the campground for a short evening stroll and gets lost (this simple scenario has led to searches that have taken several days to several weeks. Sometimes the lost person is found, eventually, many kilometers from the campground because they kept walking hoping to find their own way back. Sometimes the lost person has literally hid themselves from searchers because they were embarrassed, or they were a kid and were afraid they'd be in trouble).

*Every one of the scenarios above has led to very uncomfortable nights out for the under-prepared people involved and several of the poor souls involved did not survive.*

*Every winter in Canada, some skiers and snowboarders go for a backcountry daytrip or for a run out of bounds at a mountain ski area and get themselves lost. The story is almost always the same. Imagine yourself in it:*

- You and your buddy are dressed for skiing or boarding, not for sitting around in the snow, and you're both sweaty from plodding through deep snow trying to find your way to a road or the ski area;
- It's getting dark and the temperature is dropping fast;
- It's unlikely that searchers will be able to locate you until daylight – helicopters don't fly at night in the mountains;
- You only have what is in your pockets and daypack (assuming you're even carrying one).

*How would you feel?*

*How would your family feel?*

*Most of the people who go through this experience do survive, due in no small part to the excellent search and rescue systems we enjoy in Canada. They are found within a day or so with no more than a harrowing tale to tell. However, the above situation has led to multi-day searches, typically when no one knew exactly where to start searching because the lost people had not left word of where they were going with anyone. Sadly, some of the victims died, and others were lucky to only suffer amputations of their frozen limbs.*

## The Seven Enemies of Survival

*Survival is simply **staying warm and dry, while waiting to be found.***

*It's harder than it sounds though. What are some of the factors you think may make it difficult to survive in the wilderness?*

*Research has shown that the seven key enemies of survival (the factors that most often lead to poor outcomes) are:*

1. *Boredom and loneliness – not used to being alone with nothing to do*
2. *Pain – if injured, it's hard not to focus on the pain*
3. *Thirst – humans can only live four days without water; less if it's hot out*
4. *Fatigue – hard to sleep if cold and scared*
5. *Temperature extremes – especially the cold in Canada*
6. *Hunger – humans can live up to 40 days without food; less if it's cold out*
7. *Fear – of not being found, of animals, etc.*



*Discuss each factor briefly, including strategies for dealing with it. Survival priorities focus on dealing with each of these potential enemies while working to be found (e.g., setting up signals, listening for searchers, etc.).*

### **Survival Traits**

*Research also shows that survivors share five personal traits:*

- A will to **survive**
- Intellectual **flexibility** (ability to improvise)
- **Optimism** (e.g., this is only a temporary problem)
- **Tolerance** of unusual situations; staying calm
- Sense of **humor**

*Think about your own characteristics. Would you be likely to survive?*



## Survival Card

*In a survival situation, which is likely to occur when you least expect it, it's easy to get flustered and forget your priorities. So, I have a little tool to help you.*

*It's a laminated pocket survival card. It holds information on how to avoid getting into a survival situation in the first place, and what to do if you end up in one.*

Provide each of the students with a copy of their survival card (sample below).

**If you're going to go . . .**

**Get Trained** in the activity and environment of interest to you and take a first aid/CPR course. Then, select an appropriate trip for your training, skills and expertise.


**Look first:** Use references (e.g., area officials, guidebooks, area websites) to help you plan the details of your trip (e.g., what you'll be doing, where and when). Check weather forecasts and conditions for the area near departure time. If the trip's a go, leave a copy of your written trip plan with an adult. Assess risk for yourself on-site. Be prepared for anything? Bad weather, darkness, injury, illness or equipment breakdown can turn any outing into an extended crisis. Travel with a friend and stay together.

**Wear the Gear:** Wear appropriate safety gear, properly fitted and adjusted (e.g., buckle up helmets, harnesses, PFDs). Bring warm clothing, wind/waterproof lighters or matches, pocket knife, whistle, water, metal cup. Large orange garbage bag, space blanket, first aid kit, map and compass, sun/insect protection, signaling device (e.g., mirror, flares), tarp, candle, good footwear, rain gear, flashlight/headlamp and batteries, extra food, essential personal medications. Buckle up in the vehicle.

**Stay Sober:** Alcohol and drugs affect thinking, coordination and reaction time. You need to be able to make good decisions to stay safe or get out of trouble. Be 100% there, all the time.

*. . . returning safely is your responsibility* [www.youthsafeoutdoors.ca](http://www.youthsafeoutdoors.ca)

**If lost or unable to continue . . .**



**Sit, Think, Observe, Plan**

**Remain calm:** Think positively. Getting lost happens: don't be embarrassed or afraid.

**Stay put:** Go to last known point and STAY; don't get more lost. Stay with your boat, even if capsized, unless it is unsafe to do so.

**Assess:** Take stock of equipment, supplies and surroundings; then make a plan.

**Dress up:** Put on all your clothes. Cover head and neck. Stuff leaves, grass, moss, etc. between clothing layers. Put on a garbage bag or wrap up in a space blanket.

**Build shelter:** Protect yourself from weather, sun and cold ground. Find a cozy spot (e.g., under a big tree) near an open area in case of search aircraft. Build shelter. Collect dry tinder, kindling and firewood, and light a fire. Make a mattress (>15 cm of branches, grass, leaves, etc.,) and a >15 cm cover layer.

**Keep busy:** Sing, whistle, tell yourself jokes/stories; boil water and drink often, but don't eat anything wild unless you're sure it's safe.

**Answer noises:** If it's an animal, it will likely run away; if a searcher, you'll be found.

**Remember, SURVIVAL is simply staying warm and dry, while waiting to be found.**

Walk through the content on both sides of the card with them, beginning with the "If you're going..." side. Revisit other lessons or discussions on trip planning and survival you may have done to reinforce key concepts.

*The card does you no good if you don't carry it. Carry the card in a pocket or emergency pack you keep on whenever you are traveling outdoors as part of this class. Take it with you whenever you venture out recreationally. Protect it; it could save your life.*



## Reinforcement Activity

You may introduce a game to reinforce the importance of carrying the card; e.g., whenever out with your students, have surprise requests for individuals to produce theirs and provide an appropriate little prize if they have it on them.

## Material Preparation

Provide students with a pocket-sized, two-sided, laminated survival card. A .pdf file of the survival card can be found on the *YouthSafe Outdoors* Web site on the *Full Resources* Web page. Should you want to change the wording in the cards before printing, you will have to create your own document to meet your specifications. You can copy the words from the Acrobat document, paste them into your new file, and revise as desired.

- Select a heavy weight paper or card stock, if possible, to promote durability of the cards.
- Print the one-sided copies provided in the Acrobat file to two-sided copies (one copy per six students). Ensure that you have not checked “Shrink oversized pages to paper size” or “Enlarge small pages to paper size” before printing.
- Cut out the six cards per sheet prior to laminating. If the white space around the cards is further trimmed down prior to laminating, it is possible to fit eight cards on an 8 1/2 by 11 sheet of laminating paper, with lamination protecting all of the borders of each card.
- Leave enough space around each card when laminating to waterproof it and avoid cutting through the paper when trimming.



## The Strive to Survive Game

### Goal

To help students learn, reinforce and apply knowledge and understanding of basic survival concepts.

### Materials

Set of *Strive to Survive* Game cards. **Print** the deck of cards. Use stiff coloured paper/cardstock and cut out. You may want to laminate your set of cards to keep them waterproof. Tip: clear MACtac applied on both sides of each card, including a small margin all around each card, works great and is inexpensive.

*Today you'll be learning some outdoor survival skills. Why do you think these skills are important to know?*

*We're going to play Strive to Survive – a little different than the Survivor reality TV show, but just as much fun. Your object is to score enough points as a team that you survive, 40 points.*

Split group into teams of (X) to have three teams.

Have teams make-up a team buzzer noise so moderator can tell who is ready to answer first.

*Score 5 points per question, scramble for them. First buzzer wins opportunity to answer – teams can consult. Incorrect responses mean the other teams get a chance to respond.*

*There are 12 questions. If you scored 40 points or more, your group survived. If not ... well, we won't go there. But you'll have the chance to redeem yourself by building the best survival shelters and fires today on our trip. Go for it! Thanks for playing the Strive to Survive Game with me. And remember, survival outdoors starts at home.*

**Note to Teachers/Leaders:** The answers provided will sometimes be more comprehensive than students will come up with. If a respondent gets three or more elements incorporated into an answer, give their team the points. You can offer another 5 points to the team that can add two or more additional parts of the answer. Read out any elements not guessed on a given card so a teachable moment is used.



## Survival Kits

As part of the gear lists provided, personal survival items are noted for every activity. It is important to emphasize to students that having the right stuff with them can increase their capacity to survive almost any situation.

*Imagine sitting in the bush, knowing how much more comfortable you'd be if you had a fire for warmth, light at night, to keep animals away, to keep you busy so you don't get as bored; to boil water to stave off thirst, hypothermia and frostbite, to kill bugs in the water so you don't get sick; and to provide psychological comfort.*

*What would you need to have with you to have that miracle fire?*

- Lighter or matches (preferably windproof and waterproof);
- A candle or fire starter, or sufficient skill to secure dry kindling in the bush (which may require a knife);
- A metal cup or container to boil the water in (one of the few things we can't improvise in nature very easily).

*Would the peace of mind that you could have that miracle fire, almost anywhere, anytime, as long as you had those three things make it worth your while to carry them whenever you go out?*

*A survival kit is a collection of things like that that make it easy to be reasonably comfortable outdoors over an extended period. The items may be stuffed into different pockets of your clothes or into your daypack or a fanny pack, which you always keep on .*

*A good way to ensure things don't get forgotten, trip by trip, is to make up a little survival kit of the key items.*

*Your Survival Card above can be one of the key items in the kit. Other items should include:*

1. *A whistle – better than shouting; it's louder and less tiring to blow to summon help*
2. *Windproof/waterproof lighter or matches*
3. *Small candle or fire starter to help light fires*
4. *Orange garbage bag or space blanket – to wear as raingear, for sleeping in, for signaling, etc.*
5. *Pocketknife or multi-function tool – for getting tinder, building shelter, whittling to keep busy, etc.*
6. *Signaling device (e.g., mirror, flares)*
7. *Small metal container – serves as pot and cup; can hold the items listed above*
8. *Other items, as listed on the Survival Card, should be carried in a pack or in other pockets, as appropriate.*

*While you may not be permitted to carry a cell phone on some school trips, when going out with friends or family, it is always a god idea to have a cell phone or other means of contacting someone if you get lost or hurt or can't continue.*



## Making Survival Kits

A good class/group project or assignment may involve having students make up survival kits that each must keep on their person over all group activities outdoors. It is cheaper to do this as a group, as many items can be purchased in bulk and divided up to fill each kit. If done for the first trip of the season, the students should have the kits for the rest of the year; they are responsible for replacing any items they use. If they are encouraged to duct tape the kit closed, they will be less tempted to use items in it except in an emergency (the tape itself becomes a useful item; e.g., first aid, shelter building, repairing torn items).

## Survival Skills Instruction

Consider teaching the students the key technical skills they would need to survive in the wilderness. This could include demonstrations and practical sessions on:

- Fire building and fire lighting,
- Shelter construction (e.g., lean-to, bough shelter under tree, quinzee/snow cave),
- Basic first aid,
- Signaling for help (e.g., using mirror or flares, building a signal fire, ground to air signals, etc.).

If they practice the skills, they are more likely to be able to rely on them when needed.



## The Survival Game

*Today you'll be learning some outdoor survival skills. Why do you think these skills are important to know?*

*We're going to play a Survivor Game; a little different than the TV show, but just as much fun. Your object is to score enough points as a team that you survive, 20 Pts.*

Split group into teams of X to have three teams.

*Make-up a team buzzer noise so moderator can tell who is ready to answer first.*

*Score 5 points per question, scramble for them. First buzzer wins opportunity to answer - teams can consult. Incorrect responses mean the other teams get a chance to respond.*

1. Friends are going to a skateboard park to play on a major half-pipe. You've only skateboarded on sidewalks before, but you want to go. What do you do?

**ANSWER: get trained, say no or only go to watch.**

2. You and some friends are going cross country skiing for the day. What are two things you should check on before going?

**ANSWER: weather, snow conditions**

3. You are on a bike ride with a dozen other people. Describe how and why you would use a buddy system.

**ANSWER: pair up, stay together, check each other for signs of hypo/hyperthermia, dehydration, etc. so you can take care of each other.**

4. You are going canoeing down a river. What are four things you are required by law to carry in your boat.

**ANSWER: noisemaker, painter, bailer, paddles**

5. You and a friend are going backpacking in the mountains. What is the most important thing you can do to ensure that if something happens, you will be rescued?

**ANSWER: leave word with a responsible adult regarding where you're going and when you'll be back.**

6. You are going on a day hike in a local wild-land park. Name three things you will carry in your personal survival kit. Note to Teacher: Take three answers from the first group. Have other groups add three items for points too.

**ANSWER: clothing, wind/waterproof matches/lighters, pocketknife, whistle, water, metal cup, large orange garbage bag, space blanket, first aid kit, map and compass, signaling device, tarp, candles, flashlight, headlamp, extra food, medication, etc.**

7. The greatest risk in any outdoor trip is the time on the road getting to and from the site. What's the most important thing you can do in a vehicle to ensure your survival?

**ANSWER: buckle up.**



8. Fill in the blanks: \_\_\_\_\_ and \_\_\_\_\_ affect thinking, coordination, and reaction time. You need to be able to make good decisions to stay safe or get out of trouble, so avoid taking these.

**ANSWER: alcohol and drugs**

9. You and a friend are on a mountain biking adventure when you get lost. What should you do?

**ANSWER: STOP, go to last known point and stay put. Work to stay warm and dry.**

10. You and a friend have been out ski touring in the woods, when one of you breaks a leg. How could you signal for help?

**ANSWER: 3 of anything; write out an X, V, SOS; build a signal fire.**

**Note to teacher:** Give bonus points for other ideas

11. You are camping with your family and get lost alone while on a stroll after dinner. It's now dark and you are getting cold. What would you do?

**ANSWER: dress up, stuff leaves and grass between clothing layers, build a shelter, build a fire if you have matches/lighter.**

**Note to teacher:** Give bonus points for other ideas.

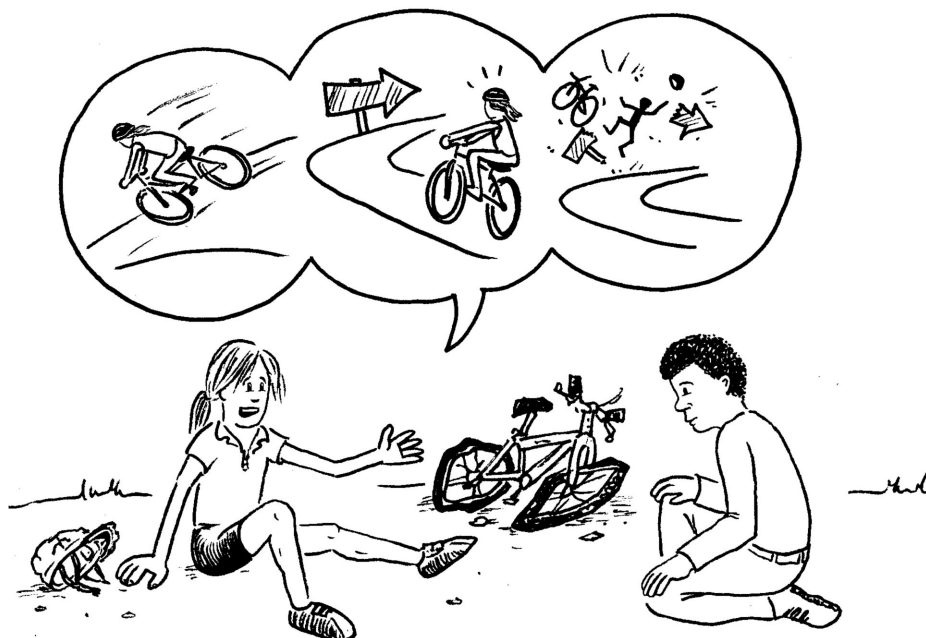
12. One of the biggest enemies of survival is fear and loneliness. Help doesn't arrive all the next day. What can you do to keep yourself from getting too scared to handle the situation?

**ANSWER: sing, whistle, tell jokes, boil water**

There were 12 questions. If you scored 20 points or more, your group survived. If not ... well, we won't go there. But you'll have the chance to redeem yourself by building the best survival shelters and fires today on our trip. Go for it! Thanks for playing the Survival Game with me. And remember, survival outdoors starts at home



## Lesson 10. Risk – Safety Debriefing



*To one who, journeying through night and fog,  
Is mired neck-deep in an unwholesome bog,  
Experience, like the rising of the dawn,  
Reveals the path that he should not have gone. – Joel Fred Bink*

### Goal

To develop students' understanding, appreciation and commitment to good decision-making and judgement in outdoor safety based on reflection, critical thinking, analysis and communication relevant to a field experience(s). This lesson facilitates completion of the full experiential learning model, Do – Look – Learn, where the debriefing process is a key method of choice facilitating the Look and Learn components. The intent is to support learning and generalization for increased safety and effectiveness in future outdoor endeavors.

### Objectives

- Students demonstrate capacity to make sense of their experiences in the field by examining what happened, how and why, and what it meant related to the outcomes obtained.
- Students demonstrate an ability to learn from their own and others' successes and failures in assessing and managing risks outdoors.



- Students demonstrate the knowledge and skills to conduct appropriate risk assessment application to risk management in related situations.

## Content

### Timing and Location:

1. The session may be part of a regularly scheduled series of debriefings conducted daily over the trip, or as part of a terminal debriefing conducted upon return to the school.
2. If part of a daily routine debriefing, it may be advantageous to schedule it in the morning before breaking camp or over an extended break once underway for the day, to ensure the students are fresh and ready to think. If students are journaling as well, this allows them the time to organize and record their own thoughts on the day before sharing these, and may result in more and higher quality inputs from them.
3. Select a meeting site large enough for everyone to sit in a circle (so they can all see each other), preferably sheltered from the elements and away from unnecessary distractions.

### Preparation:

1. Ensure participants are aware of the topic and time of the session and that they come prepared (e.g., appropriate clothing, sitting pad, notebook or journal and pencil).
2. Have an outline of the key question(s) and sub-questions to be posed, and the process for surfacing the students' reflections, analysis and learnings. A sample list of such questions for a debriefing focused on decisions related to risk assessment and safety management is included in this section.

### Conducting the Session:

1. Establish rapport, norms and ground rules. Create an open, respectful process that encourages active and silent listening and constructive participation without sacrificing honest, thorough critique. Visit or revisit relevant aspects of the *Student Rights and Responsibilities Contract*, as necessary.
2. Set an appropriate tone; one that acknowledges the seriousness of the topic, but connects the subject to the past, present and future of the students. Use humor appropriately but retain a professional demeanor.
3. Generally, the teacher/leader should run the sessions, at least initially. Preparing and running a debriefing may become part of the assigned duties of a student *Leader-of-the-Day* (LOD), particularly where leadership development is an objective of the program. Here, the teacher/leader may meet with the student LOD before the session to review the student's proposed outline and process and work with the student to help ensure the session will be effective.
4. Generally, it is advisable to begin with a brief chronological recounting of the time period being considered (e.g., previous day, entire trip). This serves to refresh memories, to identify key decisions or issues that emerged and to facilitate the groups' establishment of a common framework for discussion.



5. Keep the session moving forward with active involvement of all (respecting individual's right to "pass" on particular questions). Encourage participants to be "laser direct"; i.e., to focus their comments while refraining from excessive description, unnecessary rambling or side-talk.
6. The teacher/leader must be, and appear to be, open and candid with respect to critiquing aspects of his or her own decision-making and performance. This is very important if students are to appreciate that self-critical analysis is a positive leadership attribute, and if they are to feel comfortable openly sharing their own errors and admissions.
7. Following the discussion, summarize the conclusions of the group to highlight main points, depersonalize any criticism that was focused on an individual and re-focus the group on their future decision-making opportunities regarding the subject.

### **Sample Questions for Debriefing Risk Assessment and Safety**

*Identify a moment over the day/trip when a significant decision was made that affected the group's safety (positively or negatively).*

Several examples will likely emerge. Select one for the purpose of discussion (e.g., the one that comes up the most often, the one carrying the most "heat", have the group vote for one).

- If the decision has created an "issue" that has resulted in negative energy in the group, begin by allowing a structured venting of feelings. Ask the students to complete the following sentences:  
    *"I felt most anxious/frustrated/angry when..."* and  
    *"I felt most calm/hopeful/optimistic when..."*
- Describe the circumstances that led to the need/perceived need for a decision to be made (e.g., what outcome was envisioned).
- What factors (e.g., assumptions, constraints) influenced the decision-making process? Encourage thorough reflection.
- What options were considered and were other viable alternatives missed?
- Who ultimately made the decision? Was this appropriate in the circumstances? Why or why not?
- Given the vantage point of hindsight, was the decision a good one? Why or why not?
- Also, in hindsight, is there another way(s) the situation may have been successfully handled?
- What did you learn about assessing risks outdoors from this experience and discussion?
- What did you learn about managing outdoor risks from this experience and discussion?



## Lesson 11. Incident Debriefing Process

*One of the reasons people stop learning is that they become less and less willing to risk failure. – John W. Gardiner*

### Goal

To develop students' understanding, appreciation and commitment to good decision-making and judgement in outdoor safety based on reflection, critical thinking, analysis and communication relevant to a field experience(s). This lesson facilitates completion of the full experiential learning model, Do – Look – Learn, where the debriefing process is a key method of choice facilitating the Look and Learn components. The intent is to support learning and generalization for increased safety and effectiveness in future outdoor endeavors.

### Objectives

- Students demonstrate capacity to make sense of their experiences in the field by examining what happened, how and why, and what it meant related to the outcomes obtained.
- Students demonstrate an ability to learn from their own and others' successes and failures in assessing and managing risks outdoors.
- Students demonstrate the knowledge and skills to conduct appropriate risk assessment application to risk management in related situations.

### Materials

- Copies of the *Incident Review Form*.



## Incident Review

*Timing and Location and Conducting the Session: See Risk /Safety Debriefing exercise above.*

*When something unplanned and undesirable occurs in the outdoors, especially if an injury results, we tend to refer to the event as an “accident”. However, when we look carefully at the decisions and actions that led up to the undesired event, we often discover that the outcome was somewhat to very predictable. Knowing this, we can learn from our mistakes and those of others by spending time analyzing these incidents and consciously planning and acting in a way that avoids repetition of errors or omissions.*

*The process below can be referred to as “IAG”, for Identify, Analyze and Generalize. It can be used in cases where a relatively minor injury or incident has transpired.*

**Note to Teachers:** For incidents involving serious injuries (e.g., hospitalization, a fatality), use the *Critical Incident Debriefing Process* provided in the *Emergency Procedures* section of the *Trip Leadership Resource for Schools*.

*The process for minor incidents or near misses involves the following:*

- a) **Identify** the outcome and potential causes,
- b) **Analyze** contributing causes to determine which had the greatest impact, and
- c) **Generalize** to our future activities to avoid a reoccurrence.

### Instructions

Hand out copies of the *Incident Review Form* if it is desirable for students to record their responses for future reference.

- **Identify the undesired outcome** you will focus on as a group. This may be the injury(ies) sustained by a group member or perhaps it was only a near-miss (i.e., no one got hurt, but they could have except for the timely intervention of a person, event or luck. Write this undesired outcome in the box at the right of the diagram.
- **Identify feelings** if people are upset. Invite students to complete the two sentences:

“I felt most anxious/frustrated/angry when...” and then,

“I felt most calm/hopeful/optimistic when...”

There is no need to record the students’ statements, but allowing this release often facilitates clearer thinking and less bleeding of emotion into the rest of the exercise.

- **Identify what happened.** Focus on the key people, chronology and decisions. Avoid analysis here; just get a common set of facts on the table. Record them; then read them through aloud to ensure everyone is comfortable proceeding.
- **Identify causes.** Identify, through brainstorming, the potential contributing causes of the undesired outcome. It helps to record these in the three relevant arrows on the chart:

**Place** - objective environmental hazards

**Practices** – subjective program / procedural hazards



**People** – subjective personal or interpersonal process hazards affecting the quality of decisions made by staff, volunteers or participants

Sample lists of these hazards may be found in the *Outdoor Hazards* lesson plan.

- **Analyze.** Discuss the lists of contributing factors identified to determine which were the most direct root causes of the incident. The incident would not have occurred “**but for**” these factors. Put an \* by these items.
- **Generalize.** What future actions should the program/group take to avoid a reoccurrence of the undesired event? Be as specific as possible regarding who will take the action and in what circumstances. Record and read back to ensure group members are all satisfied the plan is doable.



## Incident Review

What happened (the facts)
---------------------------

Place (Environmental hazards)	Practices (Program or procedure hazards)	People/Process (Personal or interpersonal hazards)	Undesired Event (Incident outcome)

Identify, Analyze, Generalize (IAG)

1. **Identify undesired event** (outcome). Insert in cell at centre right.
2. **Identify what happened** (the facts). Insert in cell at top.
3. **Identify causal factors**. Insert in cells above (place, practices, people/process).
4. **Analyze causes**. Put an \* beside the root causal factors in the cells above.
5. **Generalize**. Complete cell to the right re: Future Actions to help prevent a similar incident

Future actions to promote safety
----------------------------------



## Optional Assignments

### Journal Keeping

Keeping a journal is an excellent way for students to have a chance to reflect, analyze and record their thoughts and feelings related to risk-taking. This type of assignment may help remove some of the potential reticence some students may feel about divulging their mistakes in front of their peers. It may also offer the teacher new insights into how and how well each student processes their experiences and their subsequent likelihood of becoming self-regulating.

These questions, or a subset of them, could be administered on a one-time basis, daily on a multi-day tour, or upon completion of a trip (if of short duration).

### Sample Questions for Personal Reflection and Journaling Regarding Risk Assessment and Safety Related Decisions

1. *Identify a moment over the day/trip when you made a significant decision that affected your safety and/or that of the group (positively or negatively).*
2. *Describe the circumstances that led to the need/perceived need for a decision to be made (e.g., what outcome did you envisioned).*
  - What factors (e.g., assumptions, constraints) influenced the decision-making process you used?
  - What options did you consider? Were other viable alternatives missed?
  - Given the vantage point of hindsight, was the decision a good one? Why or why not?
  - Is there another way(s) you might have successfully handled the situation?
  - What did you learn about assessing risks outdoors from this experience and reflection?
  - What did you learn about managing outdoor risks from this experience and reflection?

### An Alternative List of Questions That Could be Use in a Risk – Safety Related Debriefing, Journaling Exercise or Critical Incident Questionnaire

The following list of questions is based on Critical Incident Questionnaires (CIQ). These questionnaires help a teacher/leader secure information regarding where and how the students are connecting with the curriculum and what their significant experiences and learnings are, from their perspective. Generally, the CIQ is unfocussed, but there is no reason it cannot be adapted to promote reflection and sharing in a particular area. The sample list of questions below illustrates one way of doing this for the purposes of encouraging reflection and securing information significant incidents and learnings regarding risk assessment and management over the period.

These questions, or a subset of them, could be administered on a one-time basis, daily on a multi-day tour, or upon completion of a trip (if of short duration).

- At what moment over the day/trip did you feel most engaged with yourself as a safe outdoor traveler/camper? Why?
- At what moment over the day/trip did you feel most distanced from yourself as a safe outdoor traveler/camper? Why?



- What action that anyone (teacher/leader, student or other) took over the day/trip did you find most affirming or helpful with respect to understanding and managing a risk(s) present?
- What action that anyone (teacher/leader, student or other) took over the day/trip did you find most puzzling, confusing or troubling with respect to understanding and managing a risk(s) present?
- What about the risks present and/or the groups' way of dealing with these most surprised you (e.g., your own reactions to a risk, something that someone else did, or another observation/experience)?



## Sample Safety-related Assessment, Evaluation and Communication Strategies

Category	Strategy	Information Provided	Example
Performance Tasks	Demonstration Presentation Project (individual or group) Display Brochure/Bulletin Electronic Bulletin Board Website Game Simulation Photo Exhibit Slide/Tape Show Drawing Painting Modeling Video Production Skit Role Play	<p>Evidence of content knowledge, understanding, critical thinking, causal and evaluative reasoning, management of equipment, and safety practices.</p> <p>Application of principles and/or skills in new situations.</p>	<p>Student demonstrates proper selection, fitting and adjustment of a cycling helmet.</p> <p>Student does a poster board presentation explaining and comparing backcountry water treatment options.</p> <p>A group develops a board game that teaches outdoor survival principles.</p> <p>Teams of two students use <i>Kahoot!</i> or another online game-builder site to create, share and play a fun game or activity related to minimal impact camping.</p> <p>Student creates a cycle touring repair kit display; items and their uses.</p> <p>Student does a brochure of organizations offering outdoor skills and safety training in the community.</p> <p>Student creates and manages an electronic bulletin board for classmates to work on trip planning together for an upcoming class trip.</p> <p>Student develops a website on mountain bike safety and area routes.</p> <p>A group of students respond to a first aid simulation developed by a second group of students, who serve as the casualties for the simulation.</p> <p>Student does a photo board of class trip, illustrating safe practices.</p> <p>Student does a multi-projector slide show of a class trip, illustrating hazards encountered and safety precautions used, and shows it to classmates and parents.</p> <p>Student draws the key components of a personal survival kit.</p> <p>Student paints a picture of an outdoor hazard.</p> <p>Student builds a 3-D model of a safe, efficient campsite.</p> <p>A group creates and produces a short video that illustrates safety considerations in ski touring.</p> <p>Students do skits illustrating good management of subjective risks outdoors (e.g., overconfidence).</p> <p>Students role-play a scenario where a peer is pressuring them to take a big risk outdoors.</p>



Category	Strategy	Information Provided	Example
Observation	Anecdotal record Peer Evaluation (one-on-one or small group) Checklist Observing students	Feedback (immediate or delayed) of performance focused on general and specific outcomes; e.g., preparation, risk assessment, leadership and followership.	Teacher jots down notes and examples observed regarding each student's personal and group safety-related behavior over a two-day canoe trip and provides each student with a brief written summary.  Students each draw a name and provide that peer with feedback based on his or her adherence to the Student Rights and Responsibilities Contract.  Teacher uses a checklist to note each student's level of achievement of orienteering skills.  Teacher observes the group's level of functioning related to staying together and pacing and shares this feedback in an evening debrief.
Oral Communication; Performance Tasks	Interviews Questions/responses Peer Teaching/ Leading Debate Debriefing	Listening and speaking skills, critical thinking skills, broad and adventurous thinking, ability to present a position on an issue, information gathering, synthesizing concepts/ skills.	Students interview a partner with probing questions regarding safety on his/her past experiences in the outdoors, drawing out good and bad examples and significant learnings.  Teacher uses a guided discovery approach at a river crossing on a hike; students answer questions to arrive at decision regarding whether, where and how to cross safely.  A student functioning as Leader-of-the-Day provides the group with a briefing regarding the objectives and process of the day before departing camp.  Two small groups of students research and debate the concept of forcing people requiring backcountry rescue to pay for this service.  The group discusses and critiques its decisions over the day's snowshoe trip regarding route selection, navigation and safety practices.
Interest Inventory	Checklist Questionnaire	Interests, strengths, learning preferences, planning and strategies thinking.  Plans for engagement outside of school.  Planning future school programs.	Students fill in a goal-setting checklist of outdoor activities and additional training opportunities for each, identifying which they will pursue following the course.  Students are given incomplete sentences or open-ended opportunities to reflect and write, explain and/or illustrate or complete a questionnaire.
Quiz / Test (Paper and Pencil)	Multiple choice True/false Completion Matching Short Answer Essay	Recall, recognition, content mastery, some application of principles.	Paper and pencil test prior to trip (pre-assessment), part way through or at end of unit (summative information).
Written Language	Incident analysis	Critical thinking and reasoning, analysis, writing	Students critique a newspaper article regarding a pair of lost teenage hikers;



Category	Strategy	Information Provided	Example
(Paper and Pencil)	Essay (extended and restricted response) Creative Writing Collection	and organizational skills, research skills and vocabulary. Creativity.	identifying good and bad decisions that were made and how the incident could have been prevented. Students write an essay on the pros or cons of reliance on technology for safety in the backcountry. Student writes a poem on the essence of risk. Class produces a collection of their poems and prose written over a solo experience.
Journaling (Paper and Pencil)	Reflective Journal Dialogue Journal Trip journal	Written record of knowledge, skills and attitudes in relation to outcomes. Personal connections to safety concepts. Record of personal experiences. Meta-cognition (awareness of one's thinking and ability to self-assess and self-regulate). Goal setting. Demonstrates progress over time.	Students reflect on their perceptions and responses to risks encountered over a five-day sea kayaking trip. Students describe a situation where they helped a classmate take an appropriate risk, note how they felt and what impact the interaction had on the other person. Student keeps a technical logbook of his/her class cycling trip that could be used when planning future similar recreational outings for themselves or others.
Other	Additional Training / Certification Extra-curricular Project and Events Parent Evaluation Action Project Autobiographies Experiments		Student takes a wilderness first aid course and gets certified. Student works as an assistant leader taking a group of Brownies camping. Parents complete a checklist assessing their son/daughter's helmet use in recreational cycling (e.g., selection, adjustment, consistency wearing one) Student writes a letter to the Editor of the local paper re: safe cycling. Student writes a personal outdoor recreation/education history and reflective analysis, including significant learnings. A group of students do a pre-post survey of classmates' perceptions of risk related to a class snowshoe trip.



## Samples of Assessment and Evaluation Strategies and Tools

### Comment Card

When a situation unfolds quickly, as in a simulation, a comment card that relies on quick phrasing of observations for later recall and discussion or preparing a written summary is all that is needed. No time need be spent on describing what was done “wrong”; reaffirm things done well and focus the student forward on potential ways to improve. This helps keep the feedback both effective and efficient. The teacher may write a note in either or both spaces next to a criteria item.

A sample of some criteria and opportunities for comments on a first aid simulation could include:

<b>Criteria</b>	<b>Bouquets – What was Good</b>	<b>Suggestions for Improvement</b>
Scene assessment		
Identification of leadership		
Self-protection		
Protection of group		
Protection of casualty(ies)		
Delegation of responsibilities		
Priorities: (Airway, Breathing, Circulation, Dehydration, Exposure, Shock)		
Secondary Survey		
First aid treatment		
Monitoring and reporting		
Care and consideration of casualty		
<i>Appropriate plan for follow-up care</i>		

*Adapted from Alberta Learning (2000). Physical Education Guide to Implementation (K-12); and Manitoba Ministry of Education, Youth and Citizenship (2001). Kindergarten to Grade 4 Physical Education/Health Education: A Foundation for Implementation (2002) Grade 5-8 Physical Education/Health: Foundation for Implementation.*



## Basic Skills Checklist

Basic skills checklists can be applied to any number of activities and focused on demonstration of specific physical skills, cognitive understandings, or other objectives. In this case, the sample of selected skills and understandings are applied to safe participation in the activity of orienteering. Items could be added or deleted as relevant to the teaching situation. The list can also be provided to students as a self-check list, as is, or modified.

Basic Skills Checklist for Safe Orienteering		1 <sup>st</sup> Observation				2 <sup>nd</sup> Observation			
Orienteering Skills	Criteria	Working to Achieve		Has Achieved		Working to Achieve		Has Achieved	
		Yes	No	Yes	No	Yes	No	Yes	No
<b>Preparation</b>	appropriate dress (e.g., long sleeves and pants, comfortable for running)								
	appropriate footwear (e.g., runners, approach shoes)								
	brings warm-up jacket / wind layer								
	brings raingear								
	brings hat								
	brings water bottle								
<b>Signaling</b>	wears whistle								
	knows signal system								
	responds correctly to test signals								
<b>Map Skills</b>	orients map correctly to land								
	locates self on map								
	identifies features on map in landscape								
	identifies potential hazards on land by reading map (e.g., cliffs, watercourses)								
<b>Compass Skills</b>	can identify the safety bearing								
	can follow a bearing from map to land								
	can triangulate to locate self on map								
<b>Distance Judging Skills</b>	understands how distances on the map translate to distances on foot								
	can walk a bearing and pace out a distance given								
<b>Self-care Skills</b>	selects safe, appropriate routes between controls								
	maintains hydration								
	controls personal thermo-regulation by adding or removing layers								
	checks in after event								



## Sample Analytic Rating Assessment Tool

When a student functions as a leader, it is appropriate to provide some feedback on their performance of this demanding task (e.g., Leader for the day) connected with outcomes. Such feedback may be provided verbally (e.g., in a debriefing) or in writing. Following is a sample analytic rating scale that could be used in providing written feedback. The qualifiers could easily have numbers attached to them if there is a need to quantify the assessment.

Criteria	Consistently	Frequently	Occasionally	Rarely, if Ever
<b>Preparation / Organization</b> <ul style="list-style-type: none"> <li>establishes appropriate goals</li> <li>creates effective plan</li> <li>identifies resources needed and mobilizes these</li> </ul>				
<b>Responsibility</b> <ul style="list-style-type: none"> <li>accepts challenge of leadership role</li> <li>persists to see goal achieved</li> <li>keeps agreements</li> <li>is appropriately accountable</li> </ul>				
<b>Decision Making / Problem Solving</b> <ul style="list-style-type: none"> <li>involves appropriate people in making decisions or solving problems</li> <li>selects and uses an appropriate process to make decisions or solve problems</li> <li>remains adaptable and flexible; prepared to modify plan if not working</li> </ul>				
<b>Communication</b> <ul style="list-style-type: none"> <li>is effective and efficient in communicating information</li> <li>accurately interprets verbal and non-verbal messages from group members</li> <li>remains positive in tone and approach</li> <li>uses humor appropriately</li> </ul>				
<b>Personal Skills</b> <ul style="list-style-type: none"> <li>has sufficient health and fitness to handle demands of trip</li> <li>has appropriate level of knowledge and understandings to assess risks and plan accordingly</li> <li>has adequate technical skills to meet demands of activity and environment</li> </ul>				
<b>Cooperation</b> <ul style="list-style-type: none"> <li>works well in group</li> <li>resolves conflicts effectively</li> <li>acknowledges contributions of others</li> </ul>				
<b>Comments</b>				



## Rubric Assessment Tool

A rubric is simply a tool for categorizing the potential range and levels of performance of students on assessment items before conducting the assessment. Its use allows the student and teacher to be clear regarding expectations for minimum performance standards related to each point on the rubric's continuum. The creation of a useful rubric requires that the teacher:

- can articulate clear summary criteria of achievement in each category (e.g., excellent, good, adequate, inadequate) along the continuum of potential performances,
- apply the standards in distinguishing the instances observed involving a given student, and then
- select an appropriate category as the summary assessment of where each student is at on the criteria of interest.

A sample rubric applied to the area of risk assessment and risk management in outdoor pursuits follows. The criteria items may be used as a separate assessment tool, to highlight to students how important these understandings and skills are, or these items may be incorporated into a larger rubric covering other aspects of a trip. The tool may also be provided to students for self-check purposes.

Criteria	<b>4 Excellent</b>	<b>3 Good</b>	<b>2 Adequate</b>	<b>1 Inadequate</b>
Knows Objective Risks	Consistently identifies numerous risks inherent in the environment and activity.	Identifies several risks in the environment and activity.	Identifies a few obvious risks in the environment and/or activity.	Fails to recognize objective risks present without coaching.
Knows Subjective Risks	Consistently identifies and can explain the sources of risks inherent in self and group.	Identifies and explains several risks inherent in the self and group.	Identifies a few obvious subjective risks in the self and/or group.	Fails to recognize subjective risks present without coaching.
Considers Risks in Decision Making	Consistently makes/supports decisions that reflect attention to risk assessment.	Generally makes/supports decisions that reflect attention to risk assessment.	Is inconsistent in making/supporting decisions that reflect conscious risk assessment.	Little evidence presented that risk assessment enters into the equation in decision making.
Implements Safety Procedures	Consistently applies all safety procedures taught.	Generally applies most safety procedures most of the time.	Is inconsistent in the application of safety procedures taught.	Requires supervision / frequent reminders to apply safety procedures.
Knows Emergency Procedures	Demonstrates thorough awareness and understanding of emergency protocols taught.	Identifies most key elements of emergency protocols taught.	Identifies some key elements of emergency protocols taught.	Has limited awareness or understanding of emergency protocols taught.



## Alternative Rubric Assessment

An alternative scale for a rubric, applicable to written work, relates the scale to the quantity and quality of the student's response to different elements of the assignment. This alternative may be more appropriate where there is an upper level of performance on one or more criteria; i.e., where a student cannot really "excel" beyond expectations for the grade, program or unit on that particular item.

A sample marking sheet for student trip logs from an overnight or longer trip is included below. A trip log assignment is valuable in helping students to attend to the small-scale trip details and also to higher order critical thinking and evaluation of aspects of the program, leadership and self. These skills are all essential to the preparation of the student for planning recreational trips in the future and to them becoming self-regulating, life-long learners in this area. A trip log is generally written in a small, lined book that is easy for the student to bring and to write in at his or her convenience. Students should be encouraged to do this rather than waiting till they get home and trying to write or type something up based on recall.

Please note that the example demonstrates that it is not essential that every criteria element be worth the same number of potential points. The teacher should determine the maximum number of points based on the importance of the criteria, the number of subcomponents of the criteria, and/or the amount of time the students will likely spend addressing the criteria element.

Criteria	No		Partial		Yes	
1. Is logbook entry titled, dated, and date and location of entry noted?	0	1	2	3	4	
2. Is there an accurate record of all leaders and participants? Are leaders' roles distinguished?	0	1	2	3	4	
3. Are personal objectives noted (e.g., outdoor skills, personal and group, environmental understandings and skills)?	0	1	2	3	4	
4. Is there an accurate daily record of the weather (e.g., temperature estimate, wind strength and direction, cloud cover, precipitation)?	0	1	2	3	4	
5. Is there an accurate record of vehicle travel (e.g., route, distance, road conditions)?	0	1	2		3	
6. Is there an accurate record of trail/water travel (e.g., name of route, distance, conditions)?	0	1	2	3	4	
7. Is there an accurate record of educational and social activities?	0	1	2	3	4	
8. Is the equipment used recorded and evaluated?	0	1	2	3	4	
9. Is the menu and food (e.g., amount, type, storage) recorded and evaluated?	0	1	2	3	4	
10. Are significant incidents accurately reported?	0	1	2	3	4	
11. Is the overall trip and leadership evaluated?	0	1	2	3	4	
12. Are personal learning and performance self-assessed, in relation to the objectives set out above in 3)?	0	1	2	3	4	
13. Is the logbook legible and well written (e.g., organization, spelling, grammar, punctuation)?	0	1	2	3	4	
Comments	Total = / 50					



## Sample Interest Inventory

An interest inventory is valuable when it is important to identify a goal(s), have a strategy or plan, and proceed step by step to successful achievement. It emphasizes planning and strategic thinking, a crucial form of critical thinking.

- Sample interest inventory questions related to safe involvement in an outdoor activity could include:
- What is one outdoor activity you intend to pursue following this course?
- What is one of your goals related to safe involvement in this activity in the future?
- What are your criteria for successful achievement of this goal?
- What plan or strategy will help you achieve your goal?
- What obstacles do you anticipate?
- How will you deal with these obstacles?
- What resources will you use for support?
- What tricks or techniques will you use to ensure your plan works?
- When will you have the goal achieved by?
- How will you monitor your progress toward achievement of the goal?

## Written Test Application Questions

A long answer or essay type question is of benefit when it is important to establish whether students have learned enough of the content of a unit to be able to apply it to a related, life-like situation. Following is a sample question that could help a teacher assess the trip planning understandings and capability of students in a class. This or a similar question could also be given as a take-home assignment, which would add the benefit of the student being able to dialogue with other family members on the various elements, thereby increasing learning (of the student, and maybe also of his or her family).

*You and your family are going on a local-area day trip this summer. Detail your plans for the six-hour outing using one of the following modes of travel: day hiking, cycling or canoeing. Your trip plan should include the following components:*

Pts.	Item	
(2)	1.	<i>Itinerary (start, finish, stopovers, distance, type of environment) (make this up)</i>
(2)	2.	<i>Group and personal equipment needed</i>
(1)	3.	<i>Water and food considerations (not the actual menu)</i>
(1)	4.	<i>Minimal impact plan</i>
(2)	5.	<i>Preparation of family members before the trip (e.g., knowledge, skills, fitness)</i>
(3)	6.	<i>Hazards anticipated (at least three) and safety plan to address these</i>
(2)	7.	<i>Emergency plan (in case someone gets lost, hurt or ill)</i>
(2)	8.	<i>Trip evaluation (how you and your family will evaluate its success)</i>