

C. WINTER-BASED ACTIVITIES

General Considerations for Winter Activities

Prior to reviewing elements of this subsection for the purpose of planning an activity or outing, be able to confirm the following:

- I have at least a basic familiarity with the content in Sections 1 (Introduction) and 2 (Risk Management Primer) of the Level 1 Manual.*
- I have a solid understanding of all the material in Section 3 (General Considerations for Off-site Activities), and any subsections in Sections 4 (Special Considerations) and 5 (Local Outdoor Activities) pertinent to the activity I am planning.*
- I have a solid understanding of the relevant material in Section 6 (General Considerations for Higher Care Activities).*

With this grounding, now review the following:

Known Potential Risks

- Injuries related to vehicle crashes en route to and from activity area;
- Becoming lost or separated from the group or the group becoming split up;
- Injuries related to slips, trips, and/or falls;
- Injuries related to colliding with another person or with a fixed object;
- Injuries related to the physical demands of the activity and/or lack of activity skill;
- Other injuries (e.g., blisters, sprains, strains; acute or overuse injuries/conditions);
- Eye damage resulting from snow reflection, cold and/or wind;
- Weather changes creating adverse conditions (e.g., extreme temperatures, storms);
- Hypothermia, frostbite or other cold injuries due to insufficient clothing, hydration or care;
- Loss of hand dexterity in cold or wet weather;
- Hyperthermia (overheating) due to overdressing, overexertion and/or poor hydration;
- Equipment related injury (e.g., due to poor fit, improper adjustment, improper use, and/or malfunction of equipment, and/or entanglement in equipment);
- Illness related to poor personal hygiene, or failure to purify drinking water;
- Injuries related to encounters with animals in the environment;
- Allergic reactions to natural substances in the environment or food items;
- Psychological injury due to anxiety or embarrassment (e.g., re: lack of skill, body image);
- Complications of an injury or illness due to remoteness and time to emergency services; and
- Other risks normally associated with participation in the activity and environment.

Additional Challenges of Activity in a Cold Environment

- Decreases in body temperature; the colder it is out, the faster the loss.
- Faster cooling of skin wet from sweating or precipitation.
- Magnification of the loss of body heat in the wind, especially if the skin is wet.

- Greater perception of the cold in environments with higher humidity.
- Frostbite of extremities (e.g., nose, ears, toes, fingers) can lead to long term tissue damage.
- Compromise of brain function in severe cold, contributing to increased chance of injury.
- Dehydration in dry cold environments, due to water loss through respiration and sweat.
- Increased injury susceptibility of muscles, ligaments and tendons when they are cold.
- Children get cold faster than adults and suffer frostbite more easily. They may lack of experience in the cold and forget to stay well-dressed; e.g., removing toques, tubes, mitts, and/or getting these items wet while playing so they do not function as well.

Teacher/Leader Readiness

- The teacher/leader must be competent to organize the activity; to demonstrate, instruct and supervise it; and to effect rescue and emergency procedures as necessary. The more remote and/or longer the winter activity is to be, the more competent the teacher/leader must be.
- Before taking students out in remote areas, the teacher/leader must have substantial training and experience in winter survival, navigation and group management in this context.
- The teacher/leader must know how to prevent, recognize signs and symptoms and treat common cold related illnesses and injuries (e.g., hypothermia, frostbite).
- Assistant leaders must be comfortable outdoors in winter and have had sufficient experience in the activity to help support the group.

Equipment/Location

- For any site, students should be made aware of the boundaries for the activity.
- When choosing a site, consider the environmental conditions (e.g., sun, wind, wind chill, snow conditions and suitability of terrain). Try to select areas/routes that are relatively protected from the wind unless students are well-dressed for more exposed conditions.
- When the weather is cold, try to plan activities around mid-day, when temperatures may be warmer.
- Be aware that the temperature tends to drop quickly as soon as the sun sets.
- Appropriate layered clothing should be worn (e.g., synthetic or wool close to skin to wick/hold moisture away, fleece or wool in a second layer for warmth, and a wind/water repellent layer (ideally breathable) on the outside).
- Where possible, avoid cotton clothing (e.g., jeans, hoodies, sweatsocks), especially on extended day trip or longer outings. If students are planning to wear cotton, encourage them to bring one or more changes of the cotton items, depending on the intended duration of the outing. If a student gets very cold some distance from shelter, changing into dry clothing may help.
- Avoid excessively restrictive clothing (e.g., tight boots or gloves); body parts with restricted circulation are more subject to frostbite.
- Headgear and gloves/mitts should be required for anything beyond class instruction on a local site in mild conditions. Over 50% of body heat can be lost through the head and

neck. Ears, noses and cheeks are subject to frostbite, so keep them covered when it is cold.

- Be aware of risks related to skiing (cross-country, alpine, telemark), snowboarding or snowshoeing with bindings that do not automatically release in the event of a fall or other emergency. Participate in control.
- Groups traveling in the backcountry must be self-sufficient. Consider daylight hours, average mean temperatures and snow depth (e.g., for skis, snowshoes, etc), and time to prepare students in deciding when to hold a winter backcountry trip.
- Students must be very well prepared (e.g., knowledge, skills, clothing, equipment, health and fitness) before engaging in overnight and particularly extended winter tours into remote areas.
- Ensure any permits or passes are secured; some parks and areas that do not require them in summer may require them in winter.
- Refer to organization board policy regarding temperature/weather conditions.
- Winter travel generally takes longer than summer, so distances planned should be conservative. Consider the challenges of traveling with a pack in snow, daylight time needed to set camp, and potential for significant temperature drop at dusk.

Instruction

- Encourage students to put on and take off layers of clothing in order to stay warm and dry (e.g., avoid sweating). Add a layer when stopping to rest to avoid getting chilled.
- Include additional warm up for an active session in the cold. It requires more time to get the body ready for higher intensity activities in cold weather than in war
- Instruct students that they are responsible for notifying a supervisor if they feel too cold to continue an activity.
- Keep well hydrated during active outings; hydration helps prevent cold-related injuries and conditions.
- Encourage students and parent/guardians to consider the combined effect of cold and wind when planning what to wear for an outdoor session/trip.
- Discuss frostbite and hypothermia with students and how to prevent, recognize and treat (at a grade/age-appropriate level). Identify and deal similarly with other winter related injuries (e.g., snow blindness) as relevant to the students, activity and environment.

Supervision

- In-the-area supervision.
- Constant visual supervision where a student is crossing a potentially hazardous point on the route.
- Ratio as per calculation.
- A buddy system should be used whenever appropriate, with buddies checking each other for signs of hypothermia, frostnip, etc.

Additional Considerations for Travel in Avalanche Terrain

Avalanche Related Teacher/Leader Readiness

- If traveling in potential avalanche terrain, at least two teachers/leaders must have basic avalanche training/certification from a provider recognized by the Canadian Avalanche Association.
- Parks Canada has specific regulations regarding custodial groups traveling in the four mountain parks. A “custodial group” means a group affiliated with an institution, where at least one person is below the age of majority and that minor is not in the company of his/her parent or legal guardian. Institutional custodial groups include school groups, Scout/Guide groups, church groups, cadet groups and community youth groups. Over 250 trails in the mountain national parks have been rated into one of three categories. School group or youth activity leaders may continue to lead youth on trails rated as Level 1 Simple (minimal avalanche exposure), but are advised by Parks Canada to avoid backcountry travel completely during Backcountry Avalanche Advisories of Poor. They must hire an Associated Canadian Mountain Guide (ACMG) or International Federation of Mountain Guides Associations (IFMGA) certified mountain or ski guide with a valid permit to go on Level 2 (Challenging) routes. Group size must not exceed a total of ten. Travel in avalanche terrain is only permissible when the guide rates the slope-specific snow stability as Good or Very Good. Custodial groups are not permitted in Level 3 (Complex) terrain, even with a guide.

Avalanche Related Equipment/Location

- School students should generally not be taken into avalanche terrain. Only with a strong base of training, skills and experience, may they be taken into terrain with low to moderate avalanche potential (i.e., not where hazard is considered Considerable, High or Extreme). District approval and informed parental/guardian consent is required if proposing travel in an area with identifiable avalanche hazard.
- Check the Canadian Avalanche Centre (CAC) website for information re: the Avalanche Danger Scale and the current ratings for the proposed travel area. Check specifically for warnings and closures. See www.avalanche.ca/cac/bulletins/latest
- Check the weather forecast and avoid heading into potential avalanche terrain if storms are anticipated. Avoid traveling in mountain backcountry the day after a big storm; avalanche hazard will be higher until the snowpack settles.
- Be aware of the terrain, snowpack and weather and select appropriate routes that minimize exposure of the group and individuals. Watch for potential indicators of avalanche (e.g., signs of recent avalanche activity) or other hazards.
- If traveling in potential avalanche terrain, all group members must carry:
 - an avalanche transceiver (457 KHz compatible),
 - an avalanche probe or avalanche probe ski pole, and
 - an appropriate (i.e., very strong) shovel.
- Everyone must be trained and competent at a basic level in the use of these items.

Avalanche Related Instruction

- Often when skiing or snowshoeing, certainly in the mountains, but also potentially in any relatively steep terrain, a group may cross one or more small local features (e.g., open or sparsely treed slopes, gullies, embankments) that could produce a snow slide. Any avalanche may cause injury and even small slides can be dangerous. Instruct students to be aware and treat snow with respect.
- If traveling in potential avalanche terrain, students must be mature enough to appreciate related risks and must be trained in:
 - appropriate route selection,
 - slope assessment,
 - safety procedures for crossing suspect terrain, and
 - emergency procedures, including basic avalanche search and rescue.

Avalanche Related Supervision

- Constant visual supervision where a group member is crossing a potential avalanche slope.
- Group size of 10 maximum is recommended if traveling in avalanche terrain.

Winter Camping

Local	Grade 4+
Frontcountry/Base	Grade 5+
Remote/Extended	Grade 7+

Prior to reviewing elements of this subsection for the purpose of planning an activity or outing, be able to confirm the following:

- I have at least a basic familiarity with the content in Sections 1 (Introduction) and 2 (Risk Management Primer) of the Level 1 Manual.*
- I have a solid understanding of all the material in Section 3 (General Considerations for Off-site Activities), and any subsections in Sections 4 (Special Considerations) and 5 (Local Outdoor Activities) pertinent to the activity I am planning.*
- I have a solid understanding of the relevant material in Section 6 (General Considerations for Higher Care Activities).*
- I have a solid understanding of all the relevant material in the subsections Camping & General Considerations for Winter Activities in Section 7 (Adventure Pursuits Activities).*

With this grounding, now review the following:

Known Potential Risks

Refer to General Considerations for Winter Activities and to Camping.

Teacher/Leader Readiness

- The teacher/leader must be competent to organize the activity; to demonstrate, instruct and supervise it; and to effect rescue and emergency procedures as necessary. This includes having sufficient relevant winter camping experience in recent years for competence and confidence.
- Assistant leaders should have had some winter camping experience and must be comfortable outdoors in winter.

Equipment/Location

- If sleeping in tents, snow shelters or other unheated structures, ensure students and parents/guardians are aware of the need to bring the following items and inspect them prior to departure:
 - four season sleeping bag or equivalent (e.g., two good summer bags, one inside the other).
 - sleeping pad for under sleeping bag.
 - appropriate clothing for weather conditions, including a warm, dry change(s) of clothing and extra insulating layers plus headgear, mitts/gloves and warm boots).
- Recognizing the added challenges related to moving around in the snow, select campsite area with minimal impact in mind. Get off of trail a reasonable distance. Ensure appropriate separation of eating/sleeping areas, latrine or catholes, food hanging areas (if

used) and identifiable watercourses (if deep snow, may need to refer to an appropriate map).

Instruction

- Students should have basic competence in warm-weather camping before being taken winter camping.
- Heat loss principles and clothing systems should be taught/reviewed.
- Encourage the consumption of adequate fluids as dehydration contributes to hypothermia, frostbite, etc. In the winter camping situation, this typically requires boiling sufficient water for consumption, cooking, washing dishes, etc., taken from a watercourse or from melting snow in a pot.
- Students should be instructed regarding the importance of keeping things they are leaving outdoors up off the ground and/or in places where they will be readily located in the event of an overnight snowfall.
- If and as relevant to the group, program and selected environment, students involved in extended winter travel should be instructed in basic outdoor winter survival techniques (e.g., fire lighting, snow shelter construction, signaling for help).
- It is very important that students can get and stay warm at night. If not, they will not sleep well and, particularly on a multi-day tour, become fatigued and more accident prone as the days go on. For example, encourage them to work to keep their sleeping bag dry in their tent or snow shelter, to keep a toque and scarf or tube on through the night to minimize heat loss from the head and neck, to keep well-hydrated and well-fed, and to take whatever other steps are necessary to sleep snug and warm.
- If snow shelters are to be constructed (e.g., quinzees, snow caves, igloos):
 - Ensure snow is sufficiently deep and packed to avoid collapse and ensure that sufficient ventilation is maintained. Ensure no participants will be buried during the construction phase (e.g., use a buddy system where only one of each pair is in the shelter at one time). Collapse snow shelters after use if their presence could pose a hazard to future visitors to the area.
 - Do not allow the use of stoves, lanterns or space heaters fueled by gas, propane or other hazardous substances in tents or snow shelters because of the potential build-up of carbon monoxide.
 - If candles are to be used in snow shelters, instruct students to place them in safe places well away from sleeping bags, ground sheets or other flammable objects. It is best if candles are placed in enclosed candle lanterns. Remind students to extinguish candles before going to sleep or exiting the shelter.

Supervision

- In-the-area supervision.
- Ratio as per calculation.
- Conduct more frequent early night checks in colder weather to ensure students are warm enough, especially with younger ones.

Cross Country Skiing

Day Tripping (> 3 hours)	Grade 5+
Overnight Touring	Grade 7+
Extended Touring	Grade 9+

Prior to reviewing elements of this subsection for the purpose of planning an activity or outing, be able to confirm the following:

I have at least a basic familiarity with the content in Sections 1 (Introduction) and 2 (Risk Management Primer) of the Level 1 Manual.

I have a solid understanding of all the material in Section 3 (General Considerations for Off-site Activities), and any subsections in Sections 4 (Special Considerations) and 5 (Local Outdoor Recreation Activities; e.g., Cross Country Skiing) pertinent to the activity I am planning.

I have a solid understanding of the relevant material in Section 6 (General Considerations for Higher Care Activities).

I have a solid understanding of all the relevant material in the subsection General Considerations for Winter Activities in Section 7 (Adventure Pursuits Activities).

With this grounding, now review the following:

Day Tripping (> 3 hours): all relevant elements of Cross Country Ski Day Tripping in Section 5, plus:

Equipment/Location

- Select a conservative route (e.g., one with escape routes and/or near shelters/cabins for lunch), particularly with novice students on longer outings. Consider time available till dusk, prevailing and forecasted weather and snow conditions.
- Bring a thermos of hot drink for emergency use.
- Students should be encouraged to dress in layers and bring a back-up pair of gloves/mitts.

Instruction

- Discuss appropriate spacing of skiers.
- Have students ski under control at all times to prevent falls or collisions.
- Students should remove pole straps on steeper downhill runs where the trail is narrow and vegetation is close to the sides. Snagging baskets in shrubs/trees can cause shoulder dislocations.
- If skiing off-trail, provide training relevant to the hazards present in the environment (e.g., manoeuvring around deadfall, avoiding tree wells).
- Students with chronic knee, foot or other relevant limitations should not participate in ski tours, particularly in the backcountry and/or with a pack, where an exacerbation of this pre-existing condition could endanger them or the group.

Supervision

- In-the-area supervision; constant visual if dealing with a specific hazard.
- Ratio as per calculation.
- Use a buddy system, as well as a lead/sweep system and/or other appropriate techniques to keep group together.
- Rendezvous at trail junctions, especially if unsigned, to ensure no one goes the wrong way. Do head counts before heading off again.
- Create a system for appropriately spaced regrouping stops if the students are prone to getting too spread out along the trail (e.g., due to widely varying fitness levels and/or objectives) and/or to provide time for clothing adjustments, and water/snack intakes.

Overnight/Extended Ski Touring: *all of Day Tripping above, plus:*

Teacher/Leader Readiness

- If touring overnight or longer, assistant leaders must have strong intermediate or above ski touring and current winter camping knowledge, experience and skills.

Instruction

- Instruct students regarding appropriate packing of their backpacks and adjusting their backpacks for proper fit.
- Instruct students regarding safe procedures for donning and taking off heavy backpacks, especially considering doing this while wearing skis. Encourage buddy assistance.
- Teach students how to fall and rise while wearing a pack and skis (e.g., when and how to remove their packs rather than trying to stand up with them on).
- Provide appropriately detailed explanations of hazards encountered and procedures to follow that students understand the hazard and what they are to do, including contingencies. The potential impact of some hazards can be much more significant when the weight of a loaded pack and skis are added.
- If touring in untracked snow, ensure students have sufficient strength and endurance to break trail without exhausting themselves, or adopt strategies to compensate (e.g., short shifts in front, breaking trail without wearing a pack and going back for it after turn in front).
- On mountain ski tours when descending over a long distance, describe/discuss the potential tendency for the group to get excessively spread out, and ensure all are aware of the need to stay between the lead and sweep and to stop and wait at all regrouping locations en-route. Select regrouping spots with care, recognizing the difficulty students may have stopping with loaded packs on downhill slopes.
- Avoid travel in darkness except for emergencies. Select a camp spot with sufficient daylight left to get camp set before nightfall. Accidents tend to happen at the end of the day when people are tired on the trail and while setting up camp and preparing dinner.

Supervision

- In-the-area supervision.
- Ratio determined by calculation.

See [Winter Camping](#) for other considerations.

Biathlon

Air rifle	Grade 6+
.22 Biathlon Rifle	Grade 7+

Prior to reviewing elements of this subsection for the purpose of planning an activity or outing, be able to confirm the following:

- I have at least a basic familiarity with the content in Sections 1 (Introduction) and 2 (Risk Management Primer) of this document.*
- I have a solid understanding of all the material in Section 3 (General Considerations for Off-site Activities), and any subsections in Sections 4 (Special Considerations) and 5 (Local Outdoor Activities) pertinent to the activity or outing I am planning.*
- I have a solid understanding of all the relevant material in the subsection General Considerations for Winter Activities and Cross Country Skiing in Section 7 (Adventure Pursuits Activities).*

With this grounding, now review the following:

Known Potential Risks

- Injuries related to vehicle crashes en route to and from activity area;
- Becoming lost or separated from the group or the group becoming split up;
- Suffering an injury while alone on a route/trail;
- Injuries related to slips, trips, and falls in the program area or en-route to/from it;
- Injuries related to the physical demands of the activity and/or lack of activity skill;
- Weather changes creating adverse conditions;
- Loss of manual dexterity in hands during cold and wet weather;
- Injury or delay related to equipment malfunction, failure to use the equipment properly or becoming tangled in apparatus;
- Hypothermia frostbite or other cold injuries due to insufficient clothing;
- Hyperthermia (e.g., heat exhaustion, heat stroke) due to insufficient hydration, overdressing and/or overexertion;
- Illness related to poor hygiene;
- Injuries related to poorly fitting or improperly adjusted equipment;
- Acute or overuse injuries/conditions;
- Injuries related to colliding with another person or with a fixed object;
- Injuries related to use of firearms; and
- Psychological injury due to anxiety or embarrassment (e.g., re: body size or shape);
- Other risks normally associated with participation in the activity and environment.

Teacher/Leader Readiness

- The teacher/leader must be competent to organize the activity; to demonstrate, instruct and supervise it; and to effect rescue and emergency procedures as necessary.
- The Activity Leader must know how to prevent, recognize signs and symptoms and treat common cold related illnesses and injuries (e.g., hypothermia, frostbite).
- Assistant leaders must be comfortable outdoors in winter and have had sufficient experience in the activity to help support the group.
- A leader must have knowledge, training and experience with the air rifles or biathlon firearms in use for the activity.
- Training and certification must be secured through Biathlon Canada, BC or other appropriate sources. Because of the presence of firearms, a certified instructor must direct this activity.
- Anyone transporting firearms must have an appropriate firearms license.

Equipment/Facilities

- This activity should be introduced through the use of air rifles first. Only students twelve years of age or older and experienced in the use of air rifles at a biathlon range should be permitted to use 22s.
- Only ammunition authorized by the Biathlon Canada or BiathlonBC should be used. Higher caliber ammunition can damage targets and target paddles.
- Only coach/leader approved targets are to be fired at.
- Beginners and students younger than 12 will not carry rifles while skiing.
- Unless otherwise specified, the coaches/leaders will provide ammunition on the firing point. Students under age 12 are not to carry ammunition while they ski.
- In practice and races, a misfired round will be ejected and must be properly disposed of. The student will ask for a new round by raising his or her hand. A new round will be passed to the student by the coach or through an official if at a competition.
- Safety glasses or shatterproof eye glasses should be worn when firing .22s.
- Students should wear hearing protection when using .22s or close to others firing .22s, particularly at baffled ranges where sound attenuation structures keep the sound from dispersing.
- Encourage students to dress appropriately, including consideration of how warm they will get while skiing and how cool it may be laying on ground mats while shooting.
- An appropriate site must be selected that eliminates potential for any student or other to be injured by pellets or bullets that miss the target or ricochet. An established, properly secured and signed biathlon range must be used if .22s are to be used.
- The range rules must be posted in a prominent location.
- Firearms and ammunition are not to be left unsupervised and .22s must be placed on a rack or carried with the bolt visibly open.

Instruction

- Teach and enforce ACTS:

Assume every firearm is loaded

Control the muzzle

Trigger finger must be kept off the trigger and out of the trigger guard

See that the firearm is unloaded - PROVE it safe.

PROVE

Point the firearm in the safest available direction

Remove all ammunition

Observe the chamber

Verify the feeding path.

Examine the bore

- A rifle (air rifle or .22) must always be treated as if it is loaded.
- A rifle must never be pointed at anyone under any circumstances.
- An uncased rifle must be held in the vertical position with the muzzle pointing up when transporting it to and from the firing line and/or range.
- When in the firing position, a rifle must always point down range toward the targets.
- Fingers must be kept outside of the trigger guard until the person is ready to fire.
- Any student committing a safety violation causing imminent danger to him or herself or others will be removed from the activity. There is zero tolerance for horseplay with rifles, whether loaded or not.
- A set of verbal commands and flags (red flag means the area between the firing line and targets is closed so no one can be there and green means this area is open so no one can be holding a firearm at the firing line). This system must be used on the range at all times to identify when the range is open and when it is closed. No one may go past the firing line when the range is open for shooting.
- For novices and students under 12 years of age, all firing is done in the prone position.
- All participants carrying rifles must do so with them unloaded with the barrel pointing up.
- Students must be taught how to raise the snow flap each time they come to use the rifle and that this must be done prior to inserting a clip or bullet in the rifle.
- Rifles must be transported in hard or soft shell cases.

Supervision

- On-site supervision. Close visual supervision of individuals new to shooting and/or in early attempts with .22s.
- An instructor or coach will generally not supervise more than six students at a time. If the students are under 12, a maximum 1:4 ratio is recommended.

Snowshoeing

Day Tripping (> 3 hours)	Grade 5+
Overnight Tripping	Grade 7+
Extended Tripping	Grade 9+

Prior to reviewing elements of this subsection for the purpose of planning an activity or outing, be able to confirm the following:

- I have at least a basic familiarity with the content in Sections 1 (Introduction) and 2 (Risk Management Primer) of the Level 1 Manual.*
- I have a solid understanding of all the material in Section 3 (General Considerations for Off-site Activities), and any subsections in Sections 4 (Special Considerations) and 5 (Local Outdoor Recreation Activities; e.g., Snowshoeing) pertinent to the activity I am planning.*
- I have a solid understanding of the relevant material in Section 6 (General Considerations for Higher Care Activities).*
- I have a solid understanding of all the relevant material in the subsection General Considerations for Winter Activities in Section 7 (Adventure Pursuits Activities).*

With this grounding, now review the following:

Known Potential Risks

Refer to General Considerations for Winter Activities.

Snowshoe Day Tripping (> 3 hours)

All relevant elements of Snowshoeing in Section 5, plus:

Equipment/Location

- While snowshoeing, groups will tend to venture off the beaten track more. The leader must be very aware of route selected, conscious of avalanche hazard on micro-slopes, etc.
- Select a conservative route (e.g., one that parallels a road, near shelters/cabins for lunch), especially with novice groups.
- Have a thermos of hot drink for emergency use or a means to heat water.
- Students should be encouraged to dress in layers and bring a second pair of gloves/mitts in case their first pair gets wet.

Instruction

- Instruct students regarding hazards encountered and how to manage these.
- Students with chronic knee, foot or other relevant limitations should not participate in snowshoe hikes or, particularly, backpacking or snowshoe–toboggan expeditions where an exacerbation of this pre-existing condition could endanger them or the group.
- Inform students about potential overuse injuries caused by inappropriate snowshoeing technique (e.g., groin, knee and ankle injuries caused by walking with feet too far apart for extended distances). Teach them to walk efficiently. Be prepared to modify the activity if one or more students suffer an overuse injury.

Supervision

- Ratio as per calculation.
- Use a buddy system, as well as a lead/sweep system to keep group together.
- Rendezvous at trail junctions, especially if unsigned, to ensure no one goes the wrong way. Do head counts before starting out again.

See [Cross Country Skiing](#) and [Winter Camping](#) for other considerations.

Prior to reviewing elements of this subsection for the purpose of planning an activity or outing, be able to confirm the following:

- I have at least a basic familiarity with the content in Sections 1 (Introduction) and 2 (Risk Management Primer) of the Level 1 Manual.*
- I have a solid understanding of all the material in Section 3 (General Considerations for Off-site Activities), and any subsections in Sections 4 (Special Considerations) and 5 (Local Outdoor Activities) pertinent to the activity I am planning.*
- I have a solid understanding of the relevant material in Section 6 (General Considerations for Higher Care Activities).*
- I have a solid understanding of all the relevant material in the subsection General Considerations for Winter Activities in Section 7 (Adventure Pursuits Activities).*

With this grounding, now review the following:

Known Potential Risks (refer to General Considerations for Winter Activities), plus:

- Injuries related to colliding with another person or with a fixed object (e.g., tree, lift tower); and
- Injuries related to being caught in an avalanche if in mountainous terrain (especially if breaking rules and going out of resort area).

Teacher/Leader Readiness

- The teacher/leader must be competent to organize the skiing or snowboarding activity; to demonstrate, instruct and supervise it; and to effect rescue and emergency procedures as necessary.
- Frequently, a school will employ service provider instructors at an established ski area.
- Before contracting with a ski area service provider, ensure that they/their staff are members of their respective national certifying body (e.g., Canadian Ski Instructors Alliance, Canadian West Ski Areas Association or Canadian Association of Snowboard Instructors).
- Training, certification and/or resources may be secured through the Canadian Ski Instructors' Alliance (CSIA), Alpine Canada, BC Alpine Ski Association, BC Freestyle Skiing Association, Canadian Freestyle Ski Association, Canadian Ski Council, Canadian Ski Coaches Federation, Canadian Ski and Snowboard Professionals, Canadian Association of Snowboard Instructors, Canadian Snowboard Federation, BC Snowboarding Association or other appropriate sources.
- The instructor/leader must be comfortable on skis and able to demonstrate falling and rising, braking and turning in control on the terrain used.
- Assistant leaders must also be comfortable on skis in the terrain they will be skiing and being outdoors in winter.

Equipment/Location

- Parents/guardians/students (gear brought from home) or service providers (providing rental gear) are responsible for ensuring all bindings meet with current approved guidelines and that boots and bindings are compatible.
- All bindings must be in working order and set to the proper tension by a qualified technician. For equipment brought from home, if on-site technicians will not do this on arrival, direct parents/guardians/students to get it done prior to the class/event. School teachers/leaders are not responsible for checking that this has been done or for otherwise inspecting or testing students' equipment.
- Parents/guardians or service providers are responsible for ensuring that appropriate devices (e.g., ski brakes, snowboard leashes) are used to help prevent runaway equipment.
- If bringing ski/snowboard equipment from home or school to an off-site area, be aware that some buses (e.g., school buses) may not permit skis and poles or snowboards in the bus; order a bus with under bus storage or arrange an alternative method of getting gear to the site.
- Use of helmets is strongly encouraged and is generally required by the resort for any skier entering a terrain park. Parents/guardians should be advised to provide or rent a helmet for their child/ward (most resorts rent them). A single impact helmet will suffice as long as it fits (an insulated helmet or system that allows proper helmet fit over a toque or earband to keep the head warm needs to be considered).
- Ski boots are stiff and usually have slippery bottom surfaces; they are hard to walk in and they can be very slippery on ice.
- Where working with a service provider ski area, confirm the on-site procedure with area contact. Generally, resort area staff:
 - meet and greet the students (on or just off the bus);
 - explain the area procedures, rules, lifts operating, snow conditions and trails open;
 - instruct students about the trail rating system (green circle, blue square, black diamond) and provide or point out locations of trail maps to students;
 - organize where the group can store its things;
 - organize students for rental equipment;
 - organize groups for skier/rider skill assessment and group students for lessons;
 - provide lifts, lessons, ski patrol and concession services;
 - tell the students where to go if they lose their group; and
 - provide equipment return and departure instructions.
- Lift tickets should be attached to a pocket zipper or other suitable spot visible by lift attendants. They should not be able to flap up in the skier's face/eyes.
- Have an adult supervisor observe students who are to use a lift for the first time. Where appropriate, consider asking the lift attendant to reduce the speed of a lift for younger students, physically awkward students, and/or those using the lift for the first time.
- Only commercially operated ski/snowboards facilities with suitable teaching areas (i.e., including one or more gentle slopes) should be used. The area should be patrolled by facility staff or members of a recognized ski patrol group.

- Define specific boundaries for the activity, whether at a commercial or non-commercial site.
- If skiing/boarding at a large resort (e.g., in the mountains), encourage or require (as appropriate) students to carry a trail map or at least consult trail map signs available on-site.
- At least two-three school teachers/leaders should have communications devices to be able to communicate between/among them (e.g., cellular phones if in range, FRS, walkie talkies).
- Ensure students know where to go for help; e.g., how or where they may contact a teacher/leader over the ski day.
- Students should be divided by ability level (through ski-off assessment and/or parent/guardian's written classification) and then allowed on hills/trails commensurate with their skills and experience. Parent/guardians' written descriptions of the students' levels help the ski area determine roughly how many classes at each level they need to be prepared to provide.
- NON-SKIERS (never skied/boarded before) and NOVICES (minimal experience and control on skis/boards) should receive a lesson prior to any access to any lifts and runs (i.e., free skiing/boarding). BEGINNERS (good control on novice hills), INTERMEDIATE (good control on a variety of hills) and ADVANCED (experienced and competent skier/boarder) students may be allowed some free-ski/board time prior to their lessons, but only on hills within their capacity.
- Any skier/boarder except an ADVANCED participant may be re-assessed and upgraded over the day as they improve. Some resorts will mark the upper limit of lifts or runs a participant may use on his or her ticket. ADVANCED participants may be provided a special marking (e.g., a piece of surveyor's flagging tape as an advanced lesson) to denote their access to more challenging terrain and/or an advanced lesson.
- When choosing a site for group lessons, consider sun, wind and snow conditions as well as suitability of terrain.

Instructional Considerations

- Students should be led through a warm-up to reduce the potential for injury or residual muscle soreness.
- Remind students of the dangers of skiing/snowboarding out of bounds.
- Students should not engage in hot-dogging or jumping activities they are not well-trained to undertake.
- Familiarize skiers/riders with the **Skier's Responsibility Code** (before going and/or on-site) and require them to follow it:
 - Ski/ride in control; be able to stop or avoid other skiers/riders or objects at all times.
 - People ahead of you have the right of way; avoid them.
 - Do not stop where you obstruct a trail or are not visible from above.
 - Look up before merging onto a trail.
 - Observe all posted signs and warnings. Keep off closed trails and out of closed areas.
 - Learn how to load, ride and unload from lifts safely prior to using them.

- Familiarize skiers/riders with the **Lift Use Guidelines** (before going and/or on-site) and require them to follow these guidelines:
 - Only use lifts you are approved to ride.
 - Observe signage at lift loading and unloading area and along tow path.
 - Refrain from horseplay while waiting in line or when on lifts.
 - Follow instructions of lift operator.

When Using Surface Lifts:

- Remain in the tow path; avoid zigzagging.
- Unload only at designated area unless lift stops and ski patrol directs you to unload.
- If you fall, clear the path immediately, removing skis if necessary.

When Using Chair Lifts:

- Always use the restraining bar, if chair is so equipped.
- Remain seated with skis pointed forward and do not rock the chair.
- Never jump from a chair.
- If a chairlift stops, remain calm and wait till it restarts. Follow ski patroller directions in the event of an evacuation.
- Do not lift the restraining bar until signs or lift operator direct you to do so, take all of your belongings when dismounting the chair, and clear unloading area promptly.
- Prior to the activity day(s) discuss proper clothing, including headgear, mitts/gloves, tubes, insulating and protective layers (e.g., have students visualize being stuck on a chairlift for an hour or more in the worst weather they can anticipate for the day).
- All students should receive a ski or snowboard lesson, appropriate to their current ability.
- Students should be aware of the option of taking off their skis/board and walking down the hill if conditions become unsafe.
- Students should know that if they are involved in or witness a collision, they are to remain at the scene and identify themselves to the ski patrol.
- Students should know that violation of ski area rules, the Skier/Rider's Responsibility Code or Lift Use Guidelines might result in loss of their ski privileges.

Supervision

- In-the-area supervision.
- Ratio as per calculation.
- A buddy system should be used, pairing skiers/riders of relatively equal skill and fitness.
- Leader should establish check-in times during the day for all group members.
- Duties of the supervisors should be clearly outlined, including circulating to all hills that students are using for skiing/boarding and the ski lodge. One teacher/leader from the school should be in a designated location/area that students know and can go to if they have a problem.

Snowmobiling

Activity Instruction	Grade 5+
Day Tripping (< 3 hours)	Grade 6+
Day Tripping (> 3 hours)	Grade 7+
Overnight Tripping	Grade 9+

Canada is a snowmobiling nation. But, snowmobiling is the second leading cause of recreation and sport related injuries to children and youth between ages 5 and 19, behind only cycling. While highly attracted to driving a motorized apparatus, young people tend to be under-equipped physically and psychologically to operate the machines.

While many schools refrain from participating in motorized activities, in many parts of the province, these activities are common. Recognizing the popularity of these activities, some youth-serving organizations may wish to take the opportunity to help instruct and model safe practise to youth in the community.

Planning for riding is an important factor in making a successful adventure, whether for the afternoon, day or camping overnight. Because the mode of transportation is mechanical and significant distances can be covered, riders should be prepared to stay overnight despite intentions to return before dark.

Prior to reviewing elements of this subsection for the purpose of planning an activity or outing, be able to confirm the following:

- I have at least a basic familiarity with the content in Sections 1 (Introduction) and 2 (Risk Management Primer) of the Level 1 Manual.*
- I have a solid understanding of all the material in Section 3 (General Considerations for Off-site Activities), and any subsections in Sections 4 (Special Considerations) and 5 (Local Outdoor Activities) pertinent to the activity I am planning.*
- I have a solid understanding of the relevant material in Section 6 (General Considerations for Higher Care Activities).*
- I have a solid understanding of all the relevant material in the subsection General Considerations for Winter Activities Section 7 (Adventure Pursuits Activities).*

With this grounding, now review the following:

Known Potential Risks – *all of General Considerations for Winter Activities, plus:*

- Injuries related to colliding with another machine or with a fixed object;
- Injuries related to rollovers, falling off machine, or being thrown from the machine (e.g., due to speed, cornering, rough terrain);
- Injuries resulting from branches or other structures striking the rider;
- Cold injuries or other injuries caused by natural ice coverage breaking and person falling in cold water;
- Injuries related to being caught in an avalanche if in mountainous terrain;
- Complications of an injury or illness due to remoteness and time to emergency services; and
- Other risks normally associated with participation in the activity and environment.

Snowmobiling Activity Instruction

Teacher/Leader Readiness

- The teacher/leader must be competent to organize the snowmobiling riding activity; to demonstrate, instruct and supervise it; and to effect rescue and emergency procedures as necessary. The larger the area and/or longer the riding activity is to be, the more knowledge, skill, fitness and experience the leader must have.
- The teachers/leaders must be aware of and respect snowmobile related legislation in the province, as it relates to the riding activity and environment.
- All leaders should be comfortable on the type of snowmobile and in the environment selected.
- The leaders should be very cognizant of their own riding habits and consciously work to be good role models (e.g., wear helmets, use signals consistently, avoid sensitive terrain).
- If going off-site more than 3 km, at least one leader should have some skill in basic repair and maintenance of the type of machines used.
- Training may be secured through the BC Snowmobile Federation or other appropriate source.

Equipment/Location

- Planning for sledding is an important factor in making a successful adventure, whether for the afternoon, day or camping overnight. Because the mode of transportation is mechanical and significant distances can be covered in a relatively short period of time, always go prepared to stay overnight despite good intentions.
- If personal machine, parents/guardians can be tasked with checking or having a mechanic check the snowmobile prior to student using it in the activity to ensure it is in good working order (e.g., controls, brakes, lights, electronics, fluid levels including fuel).
- Registration and license plate, insurance documents on board,
- Safety equipment checked and aboard,
- Tool kit checked and aboard, and
- First aid kit checked and aboard.

Safety Equipment: flashlight, candles, pea-less whistle, tool kit, pocket knife, first aid kit, strobe, radio or cell phone for communications, high energy food/drinks, tow rope, waterproof matches, flares, extra batteries, extra key, axe and saw, reflective mirror, thermal blanket, florescent tape, spark drive belt and spark plugs, map and compass, extra socks/boot liners and mitts, metal cup or pot, shovel, 20 meters 10 mm nylon rope, emergency shelter, sleeping bag, avalanche transceiver and probe if in avalanche terrain, litter bags, and extra fuel.

Tool Kit: screwdrivers, locking pliers, wrenches, rags, electrical/duct tape, starter cord, spark plugs, spark plug socket, drive belt.

- Parents/guardians are responsible for outfitting their child/ward with correctly fitting Transport Canada approved full face helmets for snowmobiling activities, unless the school or a service provider has assumed this responsibility. Helmets significantly reduce head injuries and are required by law for all minors in BC.
- Teachers/leaders should check that students' helmet straps are properly adjusted and buckled and require group members to keep them on at all times while riding.
- Eye protection is important (providing protection from sun, wind, falling snow, branches along trail, etc.).
- Gloves are important for protection in a fall and from cold and/or wet weather.
- Use solid, stable, warm footwear; e.g., boots.
- Clothing worn should be comfortable and weather appropriate. The arms and legs should be covered. Light or bright coloured or reflective clothing and helmets are more visible.
- No earphones or cell phones while riding.
- Refrain from using after-market pipes that increase noise and annoy others.
- Snowmobiles have improved considerably due to oil injection, sound reduction measures, variable height exhaust valves, direct injection, on-board computers and 4-stroke engines, encourage youth to embrace new technology which is environmentally friendlier.
- Select on-site instruction stations carefully in terms of natural boundaries (or set out pylons or other indicators). Consider ground surface and pedestrian or other traffic.
- Instruction of novices should be at a well-controlled site or route; avoid roads shared with motor vehicle traffic.
- There are government regulations that need to be followed regarding snowmobile registration, and licensing and insurance and a permit is needed if riding on public roads/highways or crossing portions of these rights of way at undesignated crossings.
- Laws governing the operation of snowmobiles differ for private and public property. Ensure that students are aware of and abide by them.
- In BC, youth under 16 years of age may have restrictions on snowmobile size and speed limits. Check regulations before undertaking this activity.
- On private property, where permission has been granted by the owner, there is no license, registration, insurance or age requirement.

- Be aware of the unique and particular hazards associated with crossing ice (lakes, rivers).
- If traveling in mountainous areas, avalanche equipment and training is essential. See the [Adventure Travel Resource](#) for more information.

Instruction

- The relevant rules of the *Motor Vehicle Act* and *Traffic Safety Act* must be adhered to if going on roadways.
- Instruction may include, if/as relevant to the sledding activity and group:
 - clothing and footwear for riding,
 - familiarizing to the machine,
 - basic machine checks (as described above),
 - how to position oneself on the machine and how to shift one’s weight during basic manoeuvres,
 - rules of the trail; reading and obeying trail signs,
 - staying alert (inattention causes accidents),
 - how to signal (e.g., hand signals) and carry out turns safely,
 - how to maneuver the machine (e.g., accelerating and decelerating, riding up and down hills, cornering)
 - anticipating and responding to terrain features; e.g., slippery sections, slopes, ditches, depressions, blind intersections like corners of buildings or heavily treed bush, wet surfaces, standing water, rocks, ruts etc.),
 - riding single file, leaving enough space to be able to dodge obstacles without endangering others,
 - signaling obstacles and traffic for those behind,
 - riding on designated trails and not on roadways; crossing roads safely,
 - passing others safely,
 - riding in a predictable manner; looking around before swerving, turning or changing lanes and signaling where appropriate,
 - staying alert and focused,
 - handling minor equipment problems,
 - efficient driving technique,
 - basic machine maintenance (e.g., cleaning) and repair (e.g., changing a tire), and
 - how to fall off a trail bike/put the bike down safely.
- Instruct students progressively (e.g., how to stop before how to start, riding slowly but correctly).
- With inexperienced riders, an initial riding pretest (safety emphasized) may be given before leaving the start area (e.g., starts, stops, turns, signals, communications).
- Encourage students to know their abilities and skill level.
- Students should not ride with a passenger, especially another student.
- Exercise common sense, ride with care and caution at safe, reasonable speeds. Riding a snowmobile is not like being in a car; there are no frames, seatbelts or airbags to protect the rider.

- Encourage students to make eye contact with drivers they meet and assume that they have not been seen until acknowledged.
- Be respectful of other riders; e.g., safe following distances, yield as appropriate at intersections, yield to those coming uphill).
- Be respectful of the environment, and of private and public property, and don't litter.
- Be respectful of wild and domestic animals and give them their space.
- Avoid riding in environmentally sensitive or protected areas.
- As with other sports a code of Ethics, Code of Conduct or Riders Pledge should be in use by all students to encourage safe responsible riding practices.
- Racing should generally not be done, except where students have been trained how to race and demonstrated they can race safely and an appropriate site is used.
- Students should be aware that many deaths and permanent disabilities have happened while riding on snowmobiles when someone's judgement has been compromised through sledding while under the influence of alcohol or drugs..

Supervision

- In-the-area supervision.
- Ratio as per calculation if off-site (See [Section 3](#)).
- A designated leader stays at the front of the pack to set an appropriate pace, and the sweep stays at the back of the pack. If there is a change in trail direction, the leader should ensure no one misses the turn.

Snowmobiling Day Trip: *all of Activity Instruction, plus:*

Equipment/Facilities

- If going off-site, choose routes carefully in terms of the length, grade and consider the presence/frequency of traffic, complex intersections, and/or other hazards.
- Prior to initial use of an unfamiliar route, leader or designate pre-travel the route or seek other reliable information to secure an estimate of the time needed, trail conditions, hazards present, and appropriateness for the group.
- Be particularly conservative regarding distance and time estimates when a mechanical breakdown, pending darkness or other problem may affect success and safety. Trips can cover substantial distance, so it is easy to be quite far from home base.
- Avoid riding off-site at night. If riding at dusk, reflective strips on the machine frame, clothing, use of a headlight, a red taillight and/or red reflectors on the rear of the machine increase visibility.
- Riders need a good layer(s) of clothing for wind protection if it is cool out; riders lose heat through convection (air moving past body carries body heat away).
- The first aid kit should include large gauze pads and bandages to cover major road rash.
- If it is necessary to transport snowmobiles (other than parents/guardians bringing them to the site), select an appropriate mode of transport for the machines (e.g., trailers). Check any trailers used for loose bolts and ensure lights are functioning.

Instruction

- If sharing the trail with other recreational users (e.g., walkers/joggers, hikers, horse riders), ensure that riders are familiar with protocols for safety and courtesy (e.g., ride under control and at slow speed; make verbal contact, especially if coming up behind someone; wait for an appropriate acknowledgement and time to pass safely).
- Instruct students to get themselves and all of their gear well off the road or trail when resting, having lunch, or stopping for any other reason.
- Because of convection effects, riders may dehydrate more quickly than hikers or others working at the same intensity. Students should be encouraged to carry water, and to drink often (e.g., give reminders at break stops and model by drinking frequently).

Supervision

- In-the-area supervision generally.
- Constant visual supervision if students are dealing individually with a specific significant hazard encountered on the trail (e.g., crossing a road).
- Ratio as per calculation (See *General Considerations for Off-site Activities* in [Section 3](#)).
- Lead and sweep supervisors should carry communication equipment (e.g., cell phones, FRS, walkie talkies) to facilitate communication between them, or create a relay system to pass messages up and back.