Section 7. Adventure Pursuits Activities

Adventure pursuits involves specific activities or categories of activities undertaken that have higher levels of inherent risk related to the activity, environment, and/or group than the activities covered in the Level 1 Manual.

The guidelines in this section are designed to serve leaders involved in providing activities that include one or more of the following criteria:

- **Semi-remote to remote location**: out of the community (e.g., provincial park, wilderness river);
- **Lack of clear boundaries for activity**: an area one could get/stay lost in for more than an hour;
- **Long duration**: from a half-day to many days duration;
- **Far from support services**: not close to accessible buildings and/or vehicles (e.g., for warmth, bathrooms, a landline to get help if needed);
- **Not close to emergency services**: more than 20 minutes from EMS arrival on-site;
- **Specific leadership training required**: these activities are of the sort that an instructor or leader should have some specific technical and instruction/leadership training;
- **Significant preparation time of students**: most students would require more than an hour and potentially several hours to days to properly prepare to participate.

Planning and leadership of such activities requires consideration of the general parameters of higher care activities (see Section 6) as well as application of these principles to the specific activity, as covered in the following pages. Teachers/leaders are directed to review the relevant content of the previous six sections prior to applying the content on any relevant pages in this section. Every effort has been made to minimize redundancy by placing common content in more general sections. It is the reader's responsibility to work from general to specific guidelines.

The activities have been divided into three major subsections:

A. Land-Based (Spring/Summer/Fall) Activities
B. Water-Based Activities (including aquatics)
C. Winter-Based Activities

These guidelines recognize three different scenarios relevant to the organization of activities:

On-site Instruction: Exposures are typically three hours or less in duration and generally occur at a fixed site (e.g., canoeing at a camp waterfront, climbing on an artificial climbing wall).

Day Trip: Exposures are up to a full day and frequently involve moving from point A to point B or in a loop (e.g., hiking a forested loop in a provincial park, downhill skiing/snowboarding at a large mountain resort).

Overnight/Extended Trip: Includes at least one night out and generally involves travel from Point A to Point B or in a loop. (e.g., a two-day backpacking trip, a weeklong canoe trip).

Within each activity category (e.g., paddlesports, climbing activities) and/or specific activity, the content is further organized into considerations related to five elements:

- Known Potential Risks;
- Teacher/Leader Readiness;
- Equipment/Location;
- Instruction; and
- Supervision.

NOTE: If, when reviewing the general considerations for adventure pursuits and/or content for the activity and duration of interest, the reader discovers unfamiliar terms and concepts presented, this is a strong indicator that additional personal preparation (e.g., an instructor/leader training course, readings) or contracting a qualified service provider is indicated.

This document is **not** intended as an instructional guide re: how to teach specific technical activity skills to students. The teacher/leader will need to use other references for this purpose. See Additional Resources and References.

TIP: Known Potential Risks items related to an activity(ies) can be copied, pasted and edited for use on trip proposal forms and acknowledgement of risk and consent forms. See the Procedures and Forms Templates for Off-site Activities for the Word version of these lists.

A. LAND-BASED (SPRING/SUMMER/FALL ACTIVITIES)

Local Camping	Grade 1+
Residential Camping	Grade 1+
Frontcountry/Base Camping	Grade 3+
Remote/Extended Camping	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 V (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:

Local Camping

Local camping groups may pitch tents out in a leader or participant's backyard, a local park or other local, well-supported site. Such camping may be a big culminating adventure for younger participants (e.g., municipal daycamp) or may be part of a shakedown activity for older youth working up to frontcountry/base or remote camping.

Residential Camping

If staying at a camp or outdoor centre, the service provider generally provides dorm/cabin/other permanent or semi-permanent accommodations, toilets, showers and kitchen facilities, so the requirements for students are less than for remote, self-sustained camping. Students still need to bring personal clothing, toiletries, etc., and meet any specific requirements the school or service provider places on them. Personal sun, insect and rain protection are a minimum for spring, summer or fall camps; sun protection and clothing/footwear for cold/snow for winter camps. If selecting a camp to attend, refer to the BC Camping Association for a list of accredited camps (i.e., camps that meet established accreditation standards for facilities, site, fire prevention/protection, water, waste management, etc.).

Frontcountry/Base Camping

Frontcountry camping involves staying in an established public or private campground, typically with vehicle support on-site (e.g., car camping). Facilities often include potable water, toilets, and fire pits or wood burning stoves for cooking.

Base camping involves setting up a temporary or semi-permanent campground, typically without immediate presence of vehicles, from which other activities are run.

Remote Camping

Remote camping typically involves self-sufficient, lightweight, overnight stays in minimal facility backcountry sites (e.g., tenting). A trip may involve a single night out or many nights.

Extended camping (including any other activity such as backpacking, canoe tripping, ski touring that occurs in conjunction with the camping) refers to engagement in the activity for two or more successive nights. Such outings typically involve travel and camping in the wildland/wilderness (i.e., remote context).

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);
- Weather changes creating adverse conditions (e.g., extreme temperatures, storms);
- Hypothermia in cold or wet weather due to insufficient clothing;
- 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);
- Burns or scalds related to use of fires, camp stoves and/or the handling of hot food or liquid;
- Cuts related to the use of knives, axes or saws;
- Illness related to poor personal hygiene, failure to purify drinking water, or failure to sanitize dishes;
- Injuries related to encounters with animals and plants in the environment;
- Allergic reactions to natural substances in the environment (e.g., bee stings) 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.

Note: Camping related hazards tend to be subtle and understated when compared to the dramatic confrontation of cliffs or rapids. However, they can be no less significant contributors to injuries or lost participant incidents. People may be arriving in camp after a long day on the trail or water. Fatigue, dehydration, distraction due to socializing rather than focusing on tasks, horseplay precipitated by boredom and/or the sense of euphoria/celebration at being released from burdensome packs, a lack of experience in self-sufficient living by students (e.g., food preparation, cooking), and/or a lack of appreciation of the hazards present in and around camp may all contribute to injuries or incidents. Time and attention need to be devoted to encouraging an ethos of safety in and around camp. It may be time to shift gears, but not priorities.

Teacher/Leader Readiness

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

Equipment/Location

- Collect and check all necessary group, safety, first aid, survival and repair kit equipment before trip, ensuring deficiencies are corrected.
- Have students bring their backpack, sleeping bag, sleeping pad (e.g., ensolite, thermarest), flashlight/headlamp and clothing as well as any group gear they are providing (e.g., tents, stoves, pot sets, water pumps, axe, saw or shovel) to ensure that they are adequate for the demands of the trip and properly packed.
- Ensure group and personal gear is waterproofed as needed (see General Considerations for Higher Care Activities).
- Ensure that all equipment is appropriate and functioning. If applicable, have participants practice setting up tents, fueling and lighting stoves, etc., before departure.
- Water bottles must be clearly distinguishable from fuel bottles.
- Students should have personal first aid and survival kits.
- No heating or cooking devices (stoves, candles, etc.) may be used in tents or shelters with a floor space of less than four meters square/occupant, except in the case of wood stoves used in wall tents with appropriate stove pipes for smoke removal.
- Carry bear deterrent (e.g., spray, bangers) when in bear country. Know use and limitations. Only trained, mature students can carry and deploy bear deterrents and then only in an emergency.
- Rain gear, including good quality tops and bottoms or at least ponchos, is important.
- Comfortable footwear for in camp is recommended; avoid bare feet.
- If students have been active during the day, it is suggested they be advised to change clothes once in camp for the evening to avoid chilling.

- Latrine facilities should be dug an appropriate distance from watercourses and camp; at least 50 meters, and more if porous soil.
- With the exception of winter camping, eating areas, sleeping areas, and watercourses should be separated by at least 50 meters.
- Food hanging areas should be at least 50 meters from eating and sleeping areas. Consider prevailing winds; tenting areas should be upwind of cooking and food hanging areas when wildlife poses a concern.
- Check proposed site for potential hazards (e.g., overhanging, dead trees, rock fall, flash flood, wind, avalanche).
- If open fires are to be used, precautions should include the following:
  - secure a fire permit if one is required,
  - ensure that proposed fire site is safe from overhanging branches, the effects of wind or other hazards,
  - keep size of fire manageable, area around fire clean, and a sufficient quantity of water, soil or sand handy to douse flames or contain the fire,
  - keep flammable objects away from the fire (e.g., packs, tents, sleeping bags) to prevent sparks from damaging items,
  - take care when wearing nylon clothing near open flames,
  - NO HORSEPLAY rules must be shared and enforced,
  - ensure students know what to do if their clothing catches fire (e.g., smother flames with water, dirt, etc.; stop, drop and roll), and
  - ensure the fire is fully extinguished before departing the site.

Cooking/Dishes

If undertaking significant responsibility for providing food/meals to a group, secure and follow the relevant provincial health regulations for the preparation, cooking and storage of foods, adapting as relevant to the trip context.

Establish a safe and well-organized kitchen/cooking area, whether large group or small group cooking is being done. Consider the following, as relevant:

- The cooking area should be established in a safe location (e.g., minimize potential for cooks to trip, slip or otherwise be hindered).
- Whether using a stove or cooking fire, establish a 1 - 2 meter “safe” area around it, with only those directly involved in food preparation and cooking allowed.
- Require hand washing/cleaning prior to preparing food or cooking.
- If students will be involved in food preparation/cooking, review relevant safety precautions (e.g., use of knives, use of camp stoves or other cooking equipment).
- Cooks must be careful of hazards like loose clothing (e.g., roll up long sleeves) or long hair (e.g., tie back).
- If fuel-based appliances are used, it is advisable to ensure directions for refueling, lighting, operation and emergency procedures are on the appliance or container (e.g., typed out in font legible in low light, laminated and taped on).
- Teachers/leaders should keep the fuel with them, having students come for it as needed.

- Teachers/leaders and students should not refuel a hot appliance (e.g., stove, lantern) or refuel near open flame from operating stoves or an open fire. Replace fuel caps securely and remove fuel bottles from the cooking area after refueling.
- If using single-burner camp stoves, use an appropriate number (about one stove per six participants maximum) of appropriate stoves (e.g., white gas, propane).
- Set out and prepare cooking utensils and food as much as practicable before lighting stove to minimize last minute scrambling around a lit stove.
- Require students to take care when handling pots/pans of hot liquids/foods; e.g.:
  - use gloves and/or pot grips when handling hot pots,
  - set small containers down on a stable, flat surface while pouring into from pot/pan, and pour away from the body,
  - remove pots from the stove/fire before stirring or adding food, and
  - pass hot items around rather than over another person.
- Sterilize cooking/eating utensils daily to minimize potential for bacterial growth that can cause or contribute to intestinal illness. See Food Preparation and Cooking in Section 4.

Instruction

- Program and equipment should be planned in detail with contingency plans for inclement weather (e.g., bring a tarp(s), parachute or other group shelter).
- Food items, gum, sunscreens, repellants and cosmetics (including toothpaste and deodorant) should not be taken into tents. Instead, hang them with the foodstuffs and garbage (up out of reach of bears), or store them in bear-proof containers or vehicles located a safe distance away. If clothing gets soiled by food or drink other than water, hang it too.
- Establish and enforce an appropriate system to deal with garbage (especially leftover food stuffs and food packaging) including storage and disposal. Work to minimize odors that may attract insects, rodents or other animals.
- Establish and enforce safety procedures and rules for the use of knives if students have them (e.g., use a hard surface to cut items, rather than using a leg or hands; in general, cut away from the body).
- Establish and enforce safety procedures and rules related to camp tools like saws and axes. Saws are preferable to axes from a safety perspective (i.e., they result in fewer and less serious injuries). Avoid the use of hatchets with inexperienced students (greatest potential for injuries, including head injuries). Only allow students to use axes (full or 3/4 length) if able to devote substantial time to training them regarding the tool, properties of the item(s) to be chopped, and safety procedures (e.g., site selection/preparation, stance, stabilizing item to be chopped).
- Students should be aware of camp boundaries and assembly procedures.

Supervision

- On-site supervision (up to grade 3) or in-the-area (grade 4+) with night checks by male and female supervisors, as appropriate.
- Students filling and lighting camp stoves, lanterns or other appliances or using open fires should be under constant visual supervision, unless and until teacher/leader is confident they have mastered these skills.
- Students should only use axes, saws or knives under supervision, until skills are mastered.
- Ratio as per calculation.
- A process for regular accounting of the students should be in place.
- A buddy system should be used.
- See Overnight Supervision in Section 4 Special Considerations.

Day Hiking (> 3 hours)	Grade 3+
Overnight Backpacking	Grade 6+
Extended Backpacking	Grade 7+

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

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- ❑ *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:

Day Hiking: refers to walking with light daypacks, without the expectation of camping overnight. See Day Hiking in Section 5 if the hiking activity is a local, low risk outing less than three hours duration. The section below will build on rather than repeat this information.

Backpacking: refers to carrying the clothing, equipment and provisions the group needs to camp out one or more nights on the trail.

Day Hiking (> 3 hours): *all of Day Hiking in Section 5 plus*:

Known Potential Risks

- Complications of an injury or illness due to remoteness and time to emergency services.

Teacher/Leader Readiness

- The teacher/leader must be competent to organize the day hiking or backpacking activity; to demonstrate, instruct and supervise it; and to effect rescue and emergency procedures as necessary. The more remote and/or longer the day hike or backpack is to be, the more knowledge, skill, fitness and experience the leader must have.
- Assistant leaders should have adequate knowledge, skill, fitness and related experience to support the group.

Equipment/Location

- Have a map of the route (e.g., park or trail map of local area, topographic map if in more remote setting), compass (if relevant – not needed for a hike in a local park), and GPS, as appropriate, with thorough knowledge of their use. Have a tide table if on coastal hike where relevant. Copy of map (and/or itinerary card) should be on file at sponsoring organization. If day hike originates from base camp, a map and itinerary card should be left with the supervisor at base camp.

- Have a tide table if on coastal hike where relevant.
- Stay on designated trails unless there is a program goal, which requires going off-trail (e.g., exploring a meadow, cross-country navigation practice).
- Stay below 2,500 meters (8,000 feet) to avoid potential mountain sickness or pulmonary edema, unless a very mature group and sufficiently acclimatized.
- Each student should carry their own pack, complete with water, food, extra clothes, raingear, survival kit, and/or other items as appropriate to the hike.

Instruction

- Consider any potentially disabling chronic knee, foot or other relevant limitations that could be exacerbated. Discuss with parent(s)/guardian(s) to determine if a pre-existing condition could endanger the student and/or the group.

Supervision

- As per Day Hiking in Section 5, considering increased risks related to remoteness and time to emergency services.

Backpacking – Overnight/Extended: *all of Day Hiking plus:*

Additional Known Potential Risks

- Injuries related to lifting, carrying, walking with, or putting down the pack;
- Burns or scalds related to use of fires, camp stoves and/or the handling of hot food or liquid;
- Cuts related to the use of knives, axes or saws;
- Illness related to poor personal hygiene, failure to purify drinking water, or failure to sanitize dishes;
- 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.

Instruction

- Students, particularly children under 16, should not carry more than 20-25% of their body weight. This will necessarily limit the duration of backpacking trips that younger or smaller students can participate in unless there is another means of carrying their gear (e.g., a parent/guardian attending with them and carrying their own as well as some of the child's gear and a share of the group's gear as appropriate).
- 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. Encourage buddy assistance.
- Provide appropriately detailed explanations of hazards encountered (e.g., river crossing, scree slope, etc.) and procedures to follow so 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 loaded backpacks are added.

- Avoid travel in darkness except for emergencies. Try to select a camp spot with sufficient daylight left for everyone 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 before dinner.

Supervision

- In-the-area supervision.
- Ratio as per calculation.

See Base/Remote Camping.

Day Tripping (> 3 hours)	Grade 5+
Overnight Tripping	Grade 6+
Extended Tripping	Grade 7+

Cycling: refers to riding on roads or hard surface trails. A road bike, mountain bike or hybrid may be used for this purpose.

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- ❏ *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:

See Cycling in Section 5 for local, low risk half-day or less cycling context guidelines (e.g., cycling on-site instruction, half day or less cycle trips in the community). The guidelines below build on the Section 5 material.

Known Potential Risks: see Cycling in Section 5 plus:

- Complications of an injury or illness due to remoteness and time to emergency services.

Cycling Day Trip (> 3 hours): all of Cycling in Section 5, plus:

Equipment/Location

- If planning a long ride and/or one in a remote area, check bikes out more thoroughly, (e.g., wheel trueness, bottom brackets, pedals, headset/gears and visible bolts).

Instruction

- As per Cycling Day Trip in Section 5.

Supervision

- As per Cycling Day Trip in Section 5.

Cycling Overnight/Extended Trip: *all of Day Trip, plus:*

Equipment/Location

- Encourage the use of stiff soled shoes and ensure that if toe straps are used, they are sufficiently loose and the buckles are positioned in a manner that they do not cut into the side of the feet or they may cause plantar nerve palsy (numb toes).
- For long rides, cycling or other padded gloves should be worn and/or extra padding/tape put on the handlebars to avoid ulnar nerve palsy, which causes numbness of the hands.
- Consider whether to use a sag wagon(s); support vehicle(s) carrying the gear while cyclists ride with just a few essentials vs. packing and carrying the gear on the bikes. The group will be able to travel farther with time saved fussing over packing everything on the bike each day and the bikes will be lighter so easier to manouever, but the students may not get the same level of personal satisfaction as through being completely self-sufficient. Consider the trip objectives.
- Alternatively, even if cycling with gear on the bikes, if appropriate, a support vehicle traveling behind the group can offer a back-up in the event a bike needs major repairs or replacement or a rider cannot continue.
- If carrying gear on the bike, ensure that panniers are appropriately packed and balanced on each bike, with loads distributed low and roughly evenly around the bike (both front to rear and left to right). Place heavy items close to the bike.
- Encourage packing light for extended trips, including consideration of appropriate food (e.g., dehydrated, freeze dried).
- Pack gear in waterproof containers or plastic bags inserted into panniers.
- Heavy packs should not be worn on the back because of resulting reduced riding stability and potential for back injury and/or arm fatigue. Use panniers or tow carts for heavy loads.

Instruction

- Encourage students to vary their riding position and hand position on the handlebars frequently to avoid overuse stress.
- Avoid travel in darkness except for emergencies. Try to select a camp spot with sufficient daylight left for everyone to get camp set before nightfall.
- Try to plan overnight and especially extended cycle tours for mid-April - June, when the weather and road or trail conditions tend to be most favorable and the students will have had the maximum amount of time to plan and develop their skills and fitness.
- Attend to planning and preparation of students re: content knowledge, skill and fitness development. While most youth can ride a bike, a long ride and/or one involving carrying gear is significantly more challenging.
- Consider doing a shakedown daytrip or overnight with loaded bikes prior to an extended tour to check out gear and group capacity.

- Warn students that acceleration is sluggish and that it is harder to stop in control with a loaded bike, so adjust their pace accordingly. It is also sometimes a bit challenging mounting and/or dismounting a bike loaded with gear because it's less stable when stationary than when it has momentum, so exercise care. But, if the loaded bike is heavy enough that a student can't manage it alone, then the activity is inappropriate; reconsider using a sag wagon for the gear.

Supervision

- As above.

Refer to Base/Remote Camping sections for other relevant considerations.

On-site Instruction	Grade 3+
Day Tripping (< 3 hours)	Grade 4+
Day Tripping (> 3 hours)	Grade 5+
Overnight Tripping	Grade 6+
Extended Tripping	Grade 7+

Mountain biking: refers to the use of mountain bikes for riding or touring on less developed trails that typically require some degree of maneuvering through and around obstacles such as narrowly spaced trees, rocks, roots, mud, streams, steep hills, etc.

BMX biking: refers to riding small-wheeled bicycles, with use similar to that done on mountain bikes or in BMX (typically short course of dirt hills) or skateboard facilities. BMX does not involve overnight or longer outings.

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

- As per *Cycling* above and in Section 5, considering the selected terrain.

Mountain Biking/BMX On-site Instruction

Teacher/Leader Readiness

- The teacher/leader must be competent to organize the mountain biking activity; to demonstrate, instruct and supervise it; and to effect rescue and emergency procedures as necessary.
- Training may be secured through the Cycling Canada, Sprockids or other appropriate sources.
- All teachers/leaders should be competent, experienced cyclists.
- If going off-site, at least one teacher/leader should be competent in basic bicycle repair and maintenance, with more skill required in this area for longer, more remote trips.

Equipment/Location

- An appropriate trail must be selected for the grade/age and ability of the group. Assess hazards en-route and determine an appropriate strategy.
- Ensure that mountain biking is permitted on any trails selected in parks and protected areas.
- Protective eyewear should be worn at night or on trails where branches protrude.
- Participants should wear brightly colored clothing when riding on trails or dirt roads, particularly if it is hunting season in the area.
- For BMX riding, leg and arm protective pads are recommended.

Instruction

- Instruct students about natural hazards present on or along the trail (e.g., rocks, tree roots, streams) and how to safely negotiate these. Attention should be given regarding when to ride and when to walk the bike.
- Students should be taught and practice falling and rolling from their bikes on soft ground before they are taken riding on highly uneven surfaces.
- Students should be competent at selecting and shifting gears effectively in response to changes in incline before venturing onto hilly trails.
- If sharing the trail with other recreational users such as hikers and horse riders, ensure that riders are familiar with protocols for safety and courtesy (e.g., ride under control and at reasonable speed; make verbal/bell contact, especially if coming up behind someone; get off bikes, move off to side and stand still while horse groups pass).
- If riding in bear country, particularly where heavily wooded, avoid group spreading out along the trail excessively.
- Inappropriate use of mountain bikes can destroy an area, especially during wet conditions, rendering the area dangerous for future riding. Avoid such impacts (e.g., walk across muddy areas, avoid locking up brakes and skidding the rear wheel, which can create erosion ruts).

Mountain Bike Tripping (Day/Overnight/Extended): *all of On-site Instruction, plus:*

- Instruct the students regarding the presence of any visible hazards and their appropriate management (e.g., getting over or around logs across or large rocks on the trail, crossing streams).
- Recognize the potential complications of biking with loaded panniers on uneven terrain; be more conservative and prepared to get off the bike to walk more often to protect rider safety and the bikes.
- Because trail cyclists move significantly faster than hikers, be particularly cautious in bear country. Encourage riders to attach noisemakers to their bikes or persons and/or to talk or sing when in closed woods.
- Be particularly cognizant of how much farther biking can take a group than hiking. The group that ventures far into the backcountry must be very well-prepared and self-sufficient.

Review Base/Remote Camping considerations.

Ropes Courses • Challenge Courses

Grade 3+

Low and High Ropes/Challenge Courses

The use of low and high ropes courses, bouldering/team walls, zip lines and structures made of combinations of ropes and cables other materials (e.g., wood, trees, tires) for personal and/or group development is well-established in BC and many camps and outdoor centres have these courses on site.

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, including falling from a height;
- 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;
- Injuries related to objects falling from above;
- Other injuries (e.g., blisters, sprains, strains; acute or overuse injuries/conditions);
- Weather changes creating adverse conditions (e.g., extreme temperatures, storms);
- Hypothermia in cold or wet weather due to insufficient clothing;
- 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 and plants in the environment;
- Allergic reactions to natural substances in the environment (e.g., bee stings) 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.

Teacher/Leader Readiness

- The teacher/leader must be competent to organize the ropes/challenge course activity; to demonstrate, instruct and supervise it, and to effect rescue and emergency procedures as necessary.
- Training will include general content, but will be somewhat site-specific, as different ropes courses will have different elements.
- Assistant leaders should have adequate knowledge, skill, fitness and related experience to support the group.

Equipment/Location

- Generally, the service provider or owner/manager of the course is responsible for:
  - design and construction of the course (may be contracted out);
  - regular inspection;
  - maintenance and repair of the structure and logging of such;
  - selection, purchase, logging, and retirement of ropes and hardware;
  - securing the structure when it is not in use;
  - providing instruction and supervision of school groups using the structure; and
  - providing rescue to any student who gets 'stuck' on the structure.
- If a camp or outdoor centre accredited by the BC Camping Association is used, that camp/centre will have been required to meet the standards of construction, operation and inspection set by either the The Association for Challenge Course Technologies (ACCT) or Climbing Wall Association.. Teachers/leaders retain the right and responsibility to ask questions about any of the above if they have a concern.
- The service provider or course constructor/manager is also responsible for considering that the strength and integrity of a ropes/challenge course element and anchoring associated with it may be affected by environmental conditions (e.g., trees with diseases not visible or obvious, high winds, ultraviolet light, lightning, damage to root systems, erosion, and rot). Again, client group teachers/leaders retain the right and responsibility to ask questions or share concerns with site managers.
- It is also to be understood that any permanent or temporary set-up used reduces the strength of the individual materials involved. Knots in ropes or bends in cables; clamps on cables; angles, twists and turns; and the contact of one kind of material with another all affect the structure negatively. These must be considered in design and use of the course.
- Use locking carabiners (ensure locked) or two carabiners with offset gates (ensure offset) where carabiners are used on all high elements.
- All personal protective equipment used must meet ACCT, UIAA, manufacturer or other industry standards.

- Use appropriately sized and fitted helmets on all high elements and when belaying or standing below the course.
- Helmets,ropes, harnesses, webbing, hardware and associated equipment must be designed to meet the requirements of the activity. Pre-use inspections of personal protective equipment and belay devices must be done by trained personnel.
- Zip line riders must always be outfitted with a safety harness.
- There must be a system in place to prevent participants from launching before they are properly attached to the zip line and the zip line route is clear of obstructions. There should be direct line-of-sight from the launching pad to the unloading area; if not, a two-way voice communication system must be used.
- Sit or body harnesses may be used. All harnesses must be checked by a qualified instructor/leader to ensure they fit and are worn in accordance with the manufacturers' instructions.
- Only full weight single ropes designed for climbing may be used for belaying. Ropes must be regularly inspected (checking for flat spots, sheathing separations, cleanliness, etc.), and be found in safe condition. Ropes must be retired at 4 years or 100 days or 800 hours of use or after a major fall (whichever comes first) or less. Equipment purchase and maintenance logs must be kept.
- Only UAII or CE approved belay devices may be used. • The instructor/leader must know and be capable of carrying out emergency procedures related to a student stalled or injured at any point on the course and have whatever supplementary equipment may be necessary for this task.
- Participants must always be secure/on belay on high elements.
- Instructor/leader should be familiar with the ropes/challenge course facility, including potential hazards to be monitored and/or warned of (e.g., a loose bolt).
- The routes selected or set up must be within the physical and psychological capabilities of the students. The ideal site will have a progressive series of increasingly challenging elements.
- Adjust course obstacle selection/use, as appropriate, based on weather conditions, e.g., wet obstacles may be slippery and cold or gloved hands may not perform well.
- Participants should remove all rings, necklaces, watches and other jewelry that may become snagged in apparatus, climbing ropes or hardware.
- Appropriate clothing must be worn (e.g., nothing too loose that may catch in equipment; tuck in oversized t-shirts). Recommend snug-fitting footwear (no open-toed shoes or sandals). Long hair should be tied back.
- Safety rules related to use of the site must be prominently posted.• The ropes course, especially any high elements, should be designed and signed to deter unauthorized access when it is not in program use.

Instruction – As appropriate to the particular course and elements, the technical instructor will be responsible for the above plus:

- Because moving on ropes/challenge courses requires use of one's body in ways often new and different from everyday movement, a warm-up is advised to minimize the potential for injury and post-activity soreness.
- Students should be instructed to stand clear from the ropes course if they are observing (i.e., not below any elements of it).
- Match partners for paired tasks so they are relatively equal in height and weight.
- For low ropes course elements where students are to spot each other, instruct them regarding appropriate spotting technique, including the importance of constant visual observation of the person on the element by the spotter, self-protection of the spotter and the difference between "spotting" and "catching". Having each student do a low-level practice jump off of the element while their spotter(s) demonstrate the technique may increase the confidence and safety of both.• Warn students about hazards in the area, particularly when not obvious, and brief them regarding procedures prior to their participation.
- Define how many people can be on the element at a time, direction of travel around courses, and what appropriate spacing looks like if congestion could pose safety problems.
- Students should be taught the essentials of the equipment (e.g., what it is, what it is for), and basic care of it (e.g., not to step on ropes or drop hardware).
- Students should be warned to stay off the ropes course when they are not supervised.
- High ropes course related safety procedures should be outlined to students, such as:
  - attention to falling objects or climbers,
  - putting on harnesses and harness tie-in or clip-in (if students are doing this),
  - rope and belay systems to be used, and
  - two-way communications system.
- Students should be taught how to clip and unclip from one part of an interrupted course to another, using a double belay rope set up that prevents them ever exposing themselves to an unprotected fall. If they must perform their own disconnection/connection, there should be a ground or low-level training area set up and used to train them and facilitate practicse of this skill.
- Students are not allowed to belay until they have been trained and demonstrated proper technique in clipping into anchors, belaying, "catching" falls and lowering.
- A back-up belayer may be used, wherever appropriate and/or to help train participants in belaying.
- Instruct students not to move faster than their belayers can take up rope.
- Encourage challenge by choice, as long as students do not exceed their own limits. Encourage extra care be taken when pushing challenges (e.g., wearing blindfolds).

Supervision

- On-site supervision by technically trained instructor/supervisor.
- Constant visual of equipment of student prior to going up onto high element, and his or her belayer and back-up belayer just prior to ascent, and of the student on the course who

is clipping and reclipping to move from one element to another at height. Belayers can be trained to supervise the re-clipping procedure, using a specific two-way communication system to reduce the potential for errors.

- Supervision ratio calculated should consider the layout of the ropes/challenge course area.

General Considerations for Climbing Activities

Bouldering: involves free climbing (without belay) no higher than a height from which the climber is prepared to fall and land safely. Instead of using ropes to protect against falls, the climber uses a spotter, a more effective system with the short distances involved.

Artificial Climbing Walls: are structures made of wood, stone or manufactured holds attached to a wall to simulate the types of climbing problems one would encounter when climbing on a real rock wall. They bring climbing to people rather than making them travel long distances to the mountains, and offer greater control than that often offered in the natural environment. Artificial climbing walls can be used for bouldering or belayed climbing.

Rock Climbing: involves climbing up cliffs using the holds and cracks found on the surface of the rock. Ropes are employed as a safety backup, with a person belaying the climber and "catching" any falls using a mechanical friction system.

Rappelling and abseiling: are means of descending. Rappelling involves maintaining some contact with the feet on the wall and abseiling involves a free descent on the rope only.

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, including falling from a height;
- Injuries related to collisions with movable (e.g., other students) or immovable (e.g., wall) objects;
- Injuries related to a piece of the wall or cliff being climbed fracturing off, causing an injury or a fall;
- Injuries related to objects falling from above;

- 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);
- Weather changes creating adverse conditions (e.g., extreme temperatures, storms);
- Hypothermia in cold or wet weather due to insufficient clothing;
- 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 and plants in the environment;
- Allergic reactions to natural substances in the environment (e.g., bee stings) 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.

Note: Some of these risks will not or may not be present in indoor sites (e.g., hypothermia).

Teacher/Leader Readiness

- The teacher/leader must be competent to organize the climbing activity; to demonstrate, instruct and supervise it; and to effect rescue and emergency procedures as necessary.
- Training may be secured through the Association of Canadian Mountain Guides (ACMG), Canadian Mountain School or one of the many climbing sites or camps that offer comparable instructor training courses, or other appropriate sources.

Bouldering

Grade 3+

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 material in the subsection General Considerations for Climbing Activities in Section 7.*

With this grounding, now review the following:

Known Potential Risks

Refer to General Considerations for Climbing Activities.

Equipment/Location

- Select a site that limits the height climbers can go, ideally by using a facility with an appropriate natural upper limit on the bouldering surface or by marking one on the wall (e.g., using tape or chalk) so the climbers knows immediately when their hands have reached the upper limit and they must begin to traverse or descend, as appropriate. An appropriate height is one where the climbers' feet go no higher than their spotters' shoulders. For example, if the average spotter's shoulders are at about 1.5 m (3.5'), and the average climber in the group could reach up about 2 .5 m (6.5') from that height, the upper limit established for that group should be about 3.5 m (9') from the ground/floor. That is the height at which the wall should be marked for these climbers (i.e., not allowed to reach above that height).
- Two spotters may be assigned per bouldering climber if the landing area is particularly rough and uneven, affecting the ability of a single spotter to maintain good position.
- Use an established bouldering area rather than opening a new one, where possible, and encourage students to avoid modifying the boulder (e.g., removing moss, plants).
- Inspect the climbing site to determine the current conditions. Considerations include, but are not limited to: loose holds if an artificial climbing facility; and if a natural facility outdoors, new rock fall, loose or wet/slippery rocks, blown-down trees, nesting birds or stinging insects.
- Ensure the landing area is reasonably safe (e.g., relatively even, free from obstacles) and/or that students climb more conservatively at a site with a less ideal landing area..
- Indoor climbing gyms generally offer extensive padded mat floors. Portable landing mats may be brought to some accessible outdoor bouldering venues.

- If spotting would be an inadequate safety system, considering the site and the students, climbers must be belayed.
- Bouldering is not appropriate in areas being used by top rope climbers; separate these activities.
- Participants should wear appropriate, well-fitted footwear.
- Ensure students remove or tape down all jewelry and remove all objects from their pockets, which might cause injury (to themselves or their spotters) in a fall.
- Participants who wear eyeglasses should tie them on.
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Instruction

- Match bouldering partners so they are relatively equal in height and weight.
- Instruct students not to climb above the line/mark identified as the upper limit for the activity. Spotters may also notify them here.
- Students should be instructed in basic climbing techniques where such instruction will support safe participation in the climbing activity and environment selected. Skills taught may include:
  - climbing with the legs,
  - balancing,
  - weight shifting,
  - using hand and footholds, and
  - encouraging novices to keep 3 points on the rock at a time. (This does not preclude "exploratory climbing" prior to formal instruction, as long as this can be done safely).
- Instruct students regarding appropriate spotting technique, including stationary and moving spotting stance, the importance of constant visual observation of the climber, self-protection of the spotter and the difference between "spotting"(acting to protect the climber's head, neck and back from hitting the ground) and "catching" (not to be attempted). Having each climber do a low-level practice jump off of the wall onto the feet and the spotter demonstrate proper spotting may increase the confidence and safety of each.
- Warn students about hazards in the area (e.g., potential falling objects).
- Define how many climbers can be on the climbing surface at a time and what appropriate spacing looks like if congestion could pose safety problems. For example, a low traverse could accommodate a steady stream of climbers and their spotters moving across, and then walking back to the front end and switching places to go again.
- Warn climbers not to climb above or below another climber.
- Consider both the physical and psychological capabilities of the students and avoid pushing them to try things they aren't ready for.
- Have students scout the route they plan to take so they know how to descend from it safely. Down climbing is harder than going up because the climber can't see the holds as well.

- Encourage students to consider the level of exposure they place themselves in with each move, including height, landing position in a fall, and mindset. They want to err on the side of caution and progress slowly to more exposed moves.

Supervision

- On-site supervision by instructor.
- Constant visual supervision of climber by his or her spotter.
- Ratio as per calculation, with special consideration given to the potential impact of any hazards present, exit route from the top of the route (if appropriate), and layout of the bouldering area.

Artificial Wall Climbing (Indoor or Outdoor)

Grade 2+

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 material in the subsection General Considerations for Climbing Activities in Section 7 (Adventure Pursuits Activities).*

With this grounding, now review the following:

Known Potential Risks

Refer to General Considerations for Climbing Activities.

Teacher/Leader Readiness

- Theteacher/leader knows and adheres to the safety and operations plan of the wall being used. This includes the knowledge, skill and capacity to deal with foreseeable problems such as a jammed belay device, stuck climber (e.g., finger caught in a hold or hanger).
- Instructor or leader can ascend a fixed rope (e.g., using ascending device or prussiks) and rappel or abseil in a controlled manner using a method of self-protection.

Equipment/Location

- This activity is generally undertaken at a venue controlled by a service provider (e.g., a climbing gym, outdoor tower), although numerous municipalities and youth serving organizations are constructing indoor or outdoor walls for their students to climb. Appropriate staff (i.e., Facility Manager) needs to have a working knowledge of the construction of the wall, including the following terminology and accepted usage and standards associated therewith:
  - safe working load,
  - minimum breaking strength,
  - carabiners (kinds, materials, strengths),
  - pulleys (kinds, sizes, strengths),
  - belay devices (kinds, materials, strengths),
  - static and dynamic belay methods,
  - belay anchors and harnesses (kinds, materials, strengths).

  The wall must have been installed, operated and inspected in a manner that meets the Association for Challenge Course Technology (ACCT) or Climbing Wall Association (CWA)

standards. Client teachers/leaders retain the right and responsibility to ask a service provider questions about any of the above if they have a concern.

- Restricted to approved, safety inspected facilities.
- Teacher/leader or capable other to inspect the climbing site to determine the current conditions. If an outdoor wall, considerations include, but are not limited to: loose holds, blown-down trees, nesting birds or stinging insects.
- All personal protective equipment and ropes used must meet ACCT, UIAA, CE, manufacturer or other comparable industry standards. Each item should be labeled with an identification number that allows tracing of date of purchase and any relevant history.
- Pre-use inspections of personal protective equipment and belay devices must be done by trained personnel.
- Use locking carabiners and double check that they are locked when in use or use two non-locking ones with gates offset.
- Either sit or body harnesses may be used. All harnesses must be checked by a qualified instructor to ensure they fit and are worn in accordance with manufacturers' instructions.
- Instructor must be able to tie, teach and evaluate a retraced figure eight and overhand knots for climber role attachment to the climber's harness.
- Only full weight single ropes designed for climbing may be used for belaying. Ropes must be regularly inspected (checking for flat spots, sheathing separations, cleanliness, etc.), and be found in safe condition. Ropes must be retired at 4 years or 100 days or 800 hours of use or after a major fall (whichever comes first) or less. Equipment purchase and maintenance logs must be kept.
- Prior to a climbing session, the instructor should inspect all equipment (i.e., ropes, harnesses and hardware) to ensure there are no signs of breakage or weakness.

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- Any and all hardware dropped onto a hard surface from more than 1 meter (3') must be replaced.
- If belaying from above, two independent anchors must be used for each belayer; one anchor is sufficient if belaying from below the climb.
- Mechanical self-belay stations are increasingly common at artificial walls and provide a safe alternative to facilitate getting more people climbing.
- Only UIAA or CE approved belay systems may be used.
- Belay ropes need to be positioned to minimize potential for excessive rope wear or damage, and/or climber pendulums.
- Instructor/leader should be familiar with the climbing facility, including potential hazards to be monitored and/or warned of (e.g., a known loose hold). The routes selected or set up will be within the physical and psychological capabilities of the students. The ideal site will have a progressive series of increasingly challenging routes or the opportunity for students to choose not to use all holds available.
- Helmet use may be required by the facility or by the program authority. If so, ensure that they are properly fitted and adjusted.
- A first aid kit must be accessible on site or brought by the group leader; clarify with facility operator.

- Appropriate clothing must be worn (e.g., nothing too loose that may catch in equipment; tuck in oversized t-shirts). Recommend snug-fitting footwear (no open-toed shoes or sandals). Long hair should be tied back.
- Participants should remove or tape down all rings, watches, necklaces and other jewelry that may become snagged in climbing ropes or hardware and remove any items from their pockets that may cause injury to them or others below while hanging from the harness or in a fall.
- Keep the base of the climb free of obstacles.
- When not in use, the climbing wall should be inaccessible to unauthorized users and/or signed and students warned to stay off it when not supervised. Climbing equipment should be removed or secured when not in use or the facility locked.
- Climbing outdoors should not be undertaken after dusk unless the site is lit.

Instruction

- No lead climbing by students, unless part of an extensive training program and following securing informed consent from the students' parents/guardians.
- Placement of protection by students is allowed only if simultaneously top-roped.
- Relevant safety procedures must be clearly outlined to students, such as:
  - attention to falling objects or climbers,
  - proper harness fitting and use,
  - harness tie-in or clip-in (if they are doing this), and
  - rope and belay systems to be used.
- Because climbing requires use of one's body in ways often new and different from everyday movement, some warm-up exercises should be conducted to minimize the potential for injury and residual soreness.
- Students should be taught the essentials of the equipment (e.g., what it is, what it is for), and how to take care of it (e.g., don't step on ropes or drop hardware).
- Students should be instructed in basic climbing techniques where such instruction will support safe participation in the climbing activity and environment selected. Skills taught may include:
  - climbing with the legs,
  - balancing,
  - weight shifting,
  - using hand and footholds,
  - encouraging novices to keep 3 points on rock at a time. (This does not preclude "exploratory climbing" prior to formal instruction, as long as this can be done safely), and
  - keeping the belay rope between the arms at all times while climbing.
- Participants are not allowed to belay until they have been trained and demonstrated proper technique in belaying, "catching" falls and lowering at an appropriate speed.
- A back-up belayer is not typically necessary, but may be used to help train belaying.
- Participants should be instructed not to climb faster than their belayer(s) can take up rope.

- Students should be taught climbing communications as appropriate to their climbs and encouraged to use these terms to minimize conversation and confusion between teams working on different routes.
- Students should be encouraged to notify the instructor of any hazards (e.g., a loose hold).
- Encourage challenge by choice, as long as students do not exceed their own limits.

Supervision

- Careful visual check of equipment setup and harnesses is essential.
- Constant visual supervision of belay set-up and belaying until the instructor is satisfied that the student has sufficiently mastered the technique.
- On-site supervision for climbing and belaying once belayers are competent.
- Constant visual supervision for all lowerings.
- Determination of an appropriate supervision ratio includes consideration of the instructor's competence, group maturity, and characteristics of the climbing site. If the students are mature and all ropes are on the same wall and in close proximity to each other, then a capable, experienced instructor who can maintain a disciplined instructional environment with redundant safety systems built in may be able to safely manage multiple stations. Most established climbing gyms/camp walls will have identified rules re: supervision ratios, who may belay, etc. and a visiting school group must follow these rules.

Rock Climbing (Outdoor: top rope, fixed face)

Grade 4+

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 material in the subsection General Considerations for Climbing Activities in Section 7 and additional subsections re: Bouldering and Artificial Wall Climbing.*

With this grounding, now review the following:

Known Potential Risks

Refer to General Considerations for Climbing Activities.

Teacher/Leader Readiness

- If the teacher/leader is to be working with students at a natural site, they must have sufficient training and experience to understand and appreciate the risks present in the environment and manage these safely with the students.
- The teacher/leader knows and adheres to the safety and operations plan of the site being used. This includes the knowledge, skill and capacity to deal with foreseeable problems such as a jammed belay device, stuck climber.
- One teacher/leader or other can ascend a fixed rope (e.g., using ascending device or prussiks) and rappel or abseil in a controlled manner using a method of self-protection.
- Training may be secured from the Association of Canadian Mountain Guides (ACMG), Canadian Mountain School, or other appropriate sources.

Equipment/Location

- Inspect current conditions at site. Considerations include, but are not limited to: new rock fall, loose rocks, blown-down trees, nesting birds, or stinging insects.
- Approved, appropriately sized/fitted rock climbing helmets must be worn by climbers, belayers, and others when in the climbing area or where there is rockfall potential.
- Be familiar with the facility, including potential hazards to monitor and/or warn of.
- The routes selected or set up will be within the physical and psychological capabilities of the students. The ideal site will have a progressive series of increasingly challenging routes or the opportunity for students to choose not to use all holds available.
- Avoid climbing on excessively wet and/or slippery rocks.

- **Anchors should be independently established for belays and tie-offs.**

Instruction

- No lead climbing by students, unless part of an extensive training program and following securing informed consent from the students' parents/guardians.
- Simultaneous top-roping if practicing placing of protection.
- The instructor should inspect and test the anchor system.
- Participants must be tied/clipped in to an instructor/leader inspected anchor system when at the top of the rock face.

Supervision

- Same as considerations as for Artificial Wall Climbing, with appreciation for the potential increases in risk of a less "managed" site.
- The absence of natural "supervision ideal" sites will necessitate the setting of a smaller number of climbing stations per instructor than a climbing gym environment may allow. It would be exceptional to find a site where one instructor could adequately supervise more than three to four stations at the same time.

Age 10+

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 material in the subsection General Considerations for Climbing Activities in Section 7 (Adventure Pursuits Activities).*

With this grounding, now review the following:

Known Potential Risks

Refer to General Considerations for Climbing Activities.

Teacher/Leader Readiness

- If the teacher/leader is to be working with students at a natural site, they must have sufficient training and experience to understand and appreciate the risks present in the environment and manage these safely with the students.
- The teacher/leader knows and adheres to the safety and operations plan of the site being used. This includes the knowledge, skill and capacity to deal with foreseeable problems such as a jammed belay device, stuck climber (e.g., finger caught in a hold or hanger).
- The teacher/leader can ascend a fixed rope (e.g., using ascending device or prussiks) and rappel or abseil in a controlled manner using a method of self-protection.

Equipment/Location

- While there are many procedures that are similar to rock climbing, there are specific areas of concern that rappelling or abseiling instructors must be aware of. These include but are not limited to:
  - the use of appropriate hardware (e.g., figure of eight descenders and locking carabiners),
  - ensuring that loose clothing, equipment and hair will not become lodged in rappelling devices, and
  - appropriate signals for rappelling.
- Static ropes (no stretch) are recommended for rappels and dynamic ones for belays.
- Rappelling or abseiling students must be belayed by separate ropes on independent anchor systems, unless a self-locking rappel device is used.

- A back-up belay system used in addition to the student-controlled rappel system. The system must allow for a student to be lowered in the event they become unable to rappel/abseil the route themselves (e.g., hair or clothing entangled in rappel device).
- Instructor must inspect and test system before students use it.
- Approved (UAII or CE), appropriately sized/fitted rock climbing helmets must be worn by rappellers, belayers, and others when in the rappelling area or where there is rockfall potential.

Instruction

- Following instruction, the instructor maintains contact with students to confirm that knots, harnesses, belays and anchors are being used properly.
- Students are taught to maintain control while rappelling/abseiling and to use a safe rate of descent that will not damage the ropes. They should practice the techniques before actually rappelling/abseiling.
- The students should be instructed in safety procedures, as appropriate to the activity: e.g.,:
  - appropriate and adequate rappelling/abseiling and belaying equipment,
  - site conduct especially in regards to edge behavior, falling objects and walking around the site,
  - international two-way communication system,
  - anchors,
  - belays,
  - use of helmets,
  - appropriate and adequate rappel/abseil and belay technique, and
  - harness fitting and tie/clip-in process, if students are doing this.
- Rope is tied or clipped in directly to a properly fastened harness.
- Students should be taught to avoid damaging cliff face ecosystems while rappelling.
- Students should be discouraged from bouncing, swinging wildly or descending rapidly as these practices may have potential to pull anchors, overheat friction devices and damage the ropes.

Supervision

- Careful visual check of equipment setup and harnesses is essential.
- Constant visual supervision of all rappels/abseils by a competent teacher/leader. This implies that one teacher/leader should only manage one station at a time. If more stations are needed, additional qualified supervisors must be recruited.
- A competent individual (supervisor/mature competent student) needs to be at the bottom of the rappel/abseil to help untie/unclip the harness and send equipment back up as needed.

Pony Rides	Grade K+
On-site Instruction	Grade 1+
Day Tripping (< 3 hours)	Grade 3+
Day Tripping (> 3 hours)	Grade 4+
Overnight Tripping	Grade 5+
Extended Tripping	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).*

With this grounding, now review the following:

Pony Rides/On-site Instruction/Day Tripping

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 falling or being thrown off the horse or a horse falling or rolling with its rider;
- Injuries related to colliding with another rider or with a fixed object (e.g., fence);
- Injuries related to being struck by a vehicle (if riding on/along or crossing roads);
- Injuries related to being dragged by a horse due to entrapment in a stirrup or rein;
- Injuries related to a horse kicking, biting or crushing;
- 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);
- Weather changes creating adverse conditions (e.g., extreme temperatures, storms);
- Hypothermia in cold or wet weather due to insufficient clothing;
- 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 and plants in the environment;

- Allergic reactions to natural substances in the environment (e.g., bee stings) 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.

Teacher/Leader Readiness

- The teacher/leader must be competent to organize the horse-related activity; to demonstrate, instruct and supervise it; and to effect rescue and emergency procedures as necessary.
- Training may be secured through the Equine Canada, the Certified Horsemanship Association, or other appropriate sources.
- Assistant instructors/leaders must have adequate knowledge, skill, fitness and experience to support the students and animals on the outing or trip.
- It is important that the lead rider is a capable horseperson who can read the terrain and make appropriate decisions regarding the route and dealing with hazards encountered, considering both the riders and the horses involved.

Equipment/Location

- Generally, a service provider is used for this activity and it will be assumed that they will be responsible for stabling, feeding, watering and otherwise tending to the animals and tack.
- The horses used must be suitable for beginner riders and the terrain to be used.
- Novice riders must receive a riding lesson in an arena/pen before being taken trail riding, other than on a short pony ride.
- Trails selected should be appropriate for the abilities of the students and of the animals.
- Riding on or along or crossing roads should be avoided as much as possible.
- The instructor is responsible for:
  - matching the mount to the rider's skills;
  - properly fitting appropriate, safe tack to the mounts;
  - tack adjusted for each rider and checked; and
  - awareness of crowding, moody animals, and loose girth.
- Properly sized and adjusted helmets must be worn. American Society for Testing and materials (ASTM) Safety Equipment Institute (SEI) or equivalent approved helmets strongly recommended because of the height and speed from which one may fall or the sharply focused forceful impact of a hoof kick received from a horse. The service provider, where one is used, should provide helmets certified at this level. If undertaking the activity without a service provider or stock of certified helmets, inform parents/guardians of this fact and encourage them to provide their child/ward with one, while not making it a requirement for participation.

- Riders should wear appropriate clothing (long pants) and footwear (e.g., closed toe). If tapadaros (stirrups with closed front) are not available, students must wear shoes/boots with a heel. Clarify with service provider, as appropriate.
- No loose items that could blow off and spook a horse should be worn.
- On a trail ride consider bringing items such as a hoof pick, axe or saw to clear fallen trees across trail (horses can't just go around as easily as a hiker would) and lunch for the horse.
- Riders should spread out if no trail is present to minimize impact of horses on vegetation.

Instruction

- Students must be taught proper conduct around horses, e.g., letting them know where you are, not making sudden movements (e.g., if taking a jacket off, do so slowly and carefully) or loud noises, treating them gently and respectfully.
- Horseback riding involves placing the body through a range of motion not commonly experienced. Participants will benefit from a warm-up and stretch before participating to avoid injury and residual soreness.
- Students should be instructed in basic riding skills where such instruction will support safe participation in the riding activity and environment selected. Skills taught may include:
  - appropriate mounting procedures and body position in the saddle;
  - developing a secure position;
  - appropriate rein length for effect and to prevent abuse; and
  - use of voice commands, legs and hands, and aids.
- Students must be taught how to maintain control at a walk before progressing to a trot, and at a trot before a canter. Only very well trained students may be allowed to gallop on a horse.
- If relevant to the terrain, students should be taught how to ride up and down inclines and when to walk for the safety of themselves and/or their mounts.
- Students should be informed about hazards encountered and how to handle these (e.g., stream crossings, fallen trees).
- Students should be taught practices such as appropriate spacing between animals, passing, staying with the group and on the trail, and rest stop procedures.
- Students should be taught when tying horses, to tie above the horse's wither height with about an arm's length of rope between the horse and what it's being tied to (which needs to be something strong; a horse can easily pull up a sapling).
- For daytrip or longer outings, instruction in safety procedures should include procedures in case of emergencies (e.g., runaway horse, emergency dismounts).
- Students should be taught what to do when meeting other groups (e.g., riders, hikers, mountain bikers).
- Teachers/leaders should appreciate that some students may have a very real fear of horses. Such fears should be treated sensitively and students should not be forced to participate if they are too uncomfortable.

Supervision

- On-site supervision during instruction.

- In-the-area supervision after initial instruction and when out on trails.
- Ratio as per calculation, including consideration of risks associated with height off ground and potential unpredictability of animals in the hand of novices. When trail riding, two supervisors is considered a minimum, with one leading and one sweeping.

Horseback Tripping Overnight/Extended

Equipment/Location

- The service provider will ensure that an appropriate area is available to overnight the horses and that they have sufficient water and feed. If the group is not being guided, select an appropriate area for tethering or hobbling the horses and a bell(s). Store tack above ground.
- There is substantial training in learning how to properly load a pack horse and it must be done properly to protect the animal and minimize potential damage to the load.•
  On overnight or longer trips, riders should be encouraged to wear boots they could hike in if necessary, or to bring some hiking shoes/boots.
- Bring a first aid kit for the horses.

Instruction

- Recognize the significant leg and groin discomfort students may experience following an extended time in the saddle. Encourage students to walk occasionally to stretch their legs and keep the initial travel days of an extended trip short to give students' bodies time to adjust.
- Take extra care at river crossings and on steep slopes, particularly with loaded animals.

Supervision

- In-the-area supervision.
- Ratio as per calculation.
- Use a lead and sweep, head counts and/or other appropriate system to keep the group together.

See Base/Remote Camping, and Day Hiking and Backpacking.

Solos

Overnight/Extended Grade 9+

In the loosest interpretation of the word, solos can involve having a group spread out in the woods around the leader for a 10-15-minute quiet sit, as an opportunity to stop, look and listen to nature. At the other end of the continuum, solos can involve having small numbers of mature, experienced students do an overnight or longer stay in the forest, each in a separate solo site. Properly constructed, such experiences allow students to learn that they can be safe, comfortable and content in nature.

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:
- Suffering an injury while alone on a route/trail or in solo camp;
- Injuries related to slips, trips, and/or falls;
- Injuries related to colliding with a fixed object (e.g., walking into a tree at night);
- 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);
- Weather changes creating adverse conditions (e.g., extreme temperatures, storms);
- Hypothermia in cold or wet weather due to insufficient clothing;
- 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);
- Burns or scalds related to use of fires, camp stoves and/or the handling of hot food or liquid;
- Cuts related to the use of knives, axes or saws;
- Illness related to poor personal hygiene, failure to purify drinking water, or failure to sanitize dishes;
- Injuries related to encounters with animals and plants in the environment;

- Allergic reactions to natural substances in the environment (e.g., bee stings) or food items;
- Psychological injury due to anxiety related to feeling alone/isolated, the dark, wildlife, etc.;
- Complications of an injury or illness due to isolation, remoteness and time to emergency services; and
- Other risks normally associated with participation in the activity and environment.

Teacher/Leader Readiness

- The teacher/leader must be competent to organize the soloing activity; to demonstrate, instruct and supervise it; and to effect rescue and emergency procedures as necessary. Strong wilderness living skills and basic search and rescue skills are required.

Equipment/Location

- All students and supervisors must carry a whistle/noisemaker.
- There is a commonly known and recognizable boundary for the soloing area and each site within it and all students and leaders are familiar with and adhere to these.
- The proposed area must be carefully investigated prior to the activity, considering the need for enough sites that are all visually 'private', but within whistle range of a supervisor and/or two or more other students.
- A marked map or sketch map showing the location of each solo site is beneficial.
- Students may be asked to keep a light-stick or other easily visible marker above or near their shelter at night to facilitate night checks by supervisors.
- The equipment students have will vary by the duration and objectives of the activity and student competence with the equipment (e.g., stoves, saws).
- If students will be soloing along or securing water from a fast moving river or other potentially hazardous watercourse, they may be required to wear a PFD when close to the water (e.g., filling their pot).

Instruction

- Only students with strong camping experience (minimum 10 nights out over last two years) and solid relevant camping skills should be allowed to participate in an overnight solo.
- Solos should involve challenge by choice and students who are not comfortable should be offered options (e.g., staying in pairs, staying close to teacher/leaders' site).
- Students must know the whistle signals for "attention", "I'm coming to you", and "help/emergency" and what to do when hearing these signals.
- Students who are to go on solos must be given the information and skills to be safe, including but not limited to:
  - logistics,
  - knowledge of self-sustaining skills, as relevant (e.g., shelter-building),
  - what to do in case of significant changes in the weather,
  - psychological preparation, and

  - emergency procedures.
- Very clear rules about the use of fires should be given. If they are appropriate for the conditions (low fire hazard and abundant fuel) and group (mature and capable), then they may be permissible. Limits on the size of fires should be given and safe fire sites selected.
- Students are informed not to participate in activities like hiking, swimming, climbing, hunting or trapping, etc. during solo.
- Warn students not to wander or visit other members during the solo.
- Tell students what to do if an unfamiliar person enters their solo site (e.g., avoid engaging in conversation; if uncomfortable, call or whistle for supervisor or other nearby students).
- Tell students how to contact the instructor if they need to talk to them (e.g., hang a towel or piece of flagging on a designated tree).
- A system is in place to administer medications or do food drop offs, if necessary.
- Students are placed at appropriate distances from each other. Participants needing special attention, such as those with health concerns, lower maturity level, and/or unfamiliarity with wildland environments should be placed closer to the leader's campsite.
- Solo sites are mapped out and students are aware of who and where their neighbors are (to help preserve privacy and for emergency situations).
- Students know the role and responsibilities of staff during the solo experience, which may include, but not be limited to:
  - the check-in system,
  - food provisions,
  - emergency plans and leadership,
  - whether or not (or when) to visually observe students, and
  - how students will be approached by supervisors, if necessary, during the solo.

Supervision

- In-the-area supervision.
- Ratio as per calculation.
- Ensure parents/guardians are informed and consent to the solo activity.
- Pay particular attention to gender issues (e.g., have two supervisors do site visits together, with at least one a female if any of the students are female).
- Group size for overnight solos should be a maximum of about ten students.
- Conduct regular checks (at least twice daily); visual sighting is often sufficient to confirm that all is well with a student.

See Base/Remote Camping, and Hiking and Backpacking for other considerations.

Wilderness Steambaths

Grade 4+

The wilderness steambath experience resembles the manner in which many native Canadian peoples cleansed their bodies, The steambath also had cultural and spiritual importance to many first nations peoples. In the recreation program setting, preparation for the activity typically involves building a willow (or other flexible frame) arch shelter which is then covered with tarps or parachute material, heating rocks or iron railway tie plates in a hot fire, and placing one or more rocks/plates in a hole dug in one end of the shelter. Interested students sit inside the shelter with the entrance closed and one sprinkles water on the rocks/plates to create steam. When feeling adequately hot and sweaty, students emerge from the steambath. The steambathing activity is often followed immediately by a cold water rinse (e.g., bucket full of water over the head and body, plunge in lake or river, or roll in snow). Most participants find the experience very cleansing and exhilarating.

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 Sections1 (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 - all of camping, plus:

- Injuries related to slips, trips, and falls in the program area or en-route to/from it (may be contributed to by student feeling light-headed after steaming and standing up);
- Injuries related to colliding with a fixed object (e.g., walking into a tree at night as the activity is frequently done in the evening);
- Injuries related to the physical demands of the activity (e.g., heat intolerance);
- Hyperthermia (e.g., heat exhaustion, heat stroke) due to insufficient hydration and/or failing to exit the steambath soon enough;
- Injury related to equipment (malfunction, failure to use the equipment properly, or becoming tangled in apparatus such as the shelter tarp);
- Other injuries (e.g., blisters, sprains, strains; acute or overuse injuries/conditions);
- Burns related to use of fires, and/or hot rocks/plates (e.g., hot rocks may fracture or even explode if not selected appropriately);
- Lung and/or throat irritation due to ash or other material coming in contact with the hot rocks/plates in the steambath and creating smoke;

- Scalds related to the pouring of excessive amounts of water on hot rocks/plates in the steambath;
- Cuts related to the use of knives, axes or saws (e.g., preparing fire) or to the feet if walking around barefoot;
- Drowning or near drowning during dip or plunge in water after steambath;
- Illness related to poor personal hygiene, or failure to purify drinking water;
- Allergic reactions to natural substances in the outdoor environment (e.g., bee stings) or food items;
- Psychological injury due to anxiety or embarrassment (e.g., re: lack of skill, body image);
- Complications of injury or illness due to remoteness and time to emergency services; and
- Other risks normally associated with participation in the activity and environment.

Teacher/Leader Readiness

- The teacher/leader must be competent to organize the soloing activity; to demonstrate, instruct and supervise it; and to effect rescue and emergency procedures as necessary.
- The group must have immediate access on-site to first aid and CPR support. CPR B is recommended if students are under age 8.

If students are to dip/plunge into water that is or could be above chest height:

- A designated lifeguard or lifesaver (e.g., Bronze Medallion) must be present. The lifesaver should be a minimum of 16 year of age and at least two years older than the students being supervised.
- Lifesavers require significant knowledge specific to the activity and the aquatic context. At least one lifesaver must have an understanding of site assessment, supervision, safety and emergency procedure considerations relevant to the selected site and should have a minimum of 10 hours experience supervising in the type of environment (e.g., open water).
- The Lifesaver must be knowledgeable and skilled in relevant incident prevention (e.g., site assessment, supervision, safety rules) and incident response (e.g., water rescue skills, emergency procedures).
- Parents/guardians must:
  - be notified of the supervisory arrangements (e.g., the number and level of certification of the Lifesaver(s) present, distinguishing them from 'Lifeguards' unless the individual(s) are currently certified as lifeguards),
  - identify their child/ward's aquatic skill level,
  - acknowledge awareness of the potential hazards associated with the plunge/ swimming activity, and
  - consent to their child/ward's participation.

Equipment/Location

- Consider how students are to cool off after the steambath and if they are to dip/plunge in open water (e.g., lake or river), then an appropriate site must be selected. It does not have to be deep (e.g., a half-meter to lay down in for a few seconds is often adequate), but may also be deep if it is relatively still water. Once identified, this dip/plunge site may

ultimately determine where the shelter and fire are constructed (minimizing distance to walk and cool off between steambath and dip/plunge).

- Consider the distance between fire and steambath (minimum distance to carry hot rocks/plates, but far enough that sparks from fire don't land on the shelter).
- Apply fire safety procedures (see Camping).
- The size of the fire needed depends on the size of the group participating in the steambathing activity, number of rounds in the steambath they wish to do, and how hot they like it in the steambath. With younger and/or less experienced students, err on the side of only one or two rounds without very much heat. However, it will frequently still take at least an hour or more to sufficiently heat the rocks/plates for steambath use.
- If rocks are to be used, avoid river rocks or other types potentially prone to exploding.
- Establish a perimeter of at least 3m (10 feet) around the fire while rocks are heating that no one except a supervisor enters and then only to tend the fire or remove rocks to place in the steambath. This is not necessary if railway tie plates are used as they do not explode. When the steambathing experience is over and any remaining rocks in the fire have begun to cool, students may stand around the fire to dry off and stay warm.
- Consider a safe means of transporting hot rocks/plates from the fire to the steambath. This involves getting the rocks/plates out of the fire, getting wood and ash off of them, safely lifting and transporting them on a shovel or between large sticks, and ensuring the shelter material is moved so the hole is exposed properly before depositing them and weighing down the tarp away from the rocks/plates). This is typically a two-person job and communication is important. Footwear must be worn if involved in transporting rocks/plates and work gloves are recommended.
- Consider nature of footing when determining whether to require the wearing of footwear during any dip/plunge activity.
- Consider if there is a need to run a hand line to a dip site.
- Consider whether lights/lanterns are needed to light route and dip/plunge site.
- If a plunge into water over chest height is involved, ensure foot first entry and slipping in vs. jumping unless the site is consistently more than 2.5m deep. The site must be inspected during daylight and assessed for its safety and appropriateness.
- Any students who are non or weak swimmers must wear a PFD prior to plunging in over chest depth or where there is more than a very modest current in shallower water.
- The door or entry must be opposite the site of the hole to minimize potential for anyone to slip or trip or otherwise come in direct contact with the hot rocks/plates.
- In the steambath, a bucket/pail of water is kept for the purpose of sprinkling on the hot rocks/plates. The bucket should be kept at least 1m (3 feet) from the rocks/plates and an adult should sit in the first spot next to the hole and assume responsibility for sprinkling the rocks/plates. A ladle or bough bundle is used to take a small amount of water at a time from the bucket to sprinkle over the rocks/plates. The temperature in the steambath can rise dramatically in a very short period of time if too much water is poured on the rocks/ties at once.

Instruction

- Students must be instructed to stay well out of the way when rocks/plates are being transported to and placed in the steambath.
- The adult supervisor in the steambath monitors the students' comfort level during the session. If the steambath structure is large, there may be significantly varying levels of heat/steam in different parts. However, once the bucket is in the structure, student movement around within should be minimized.
- Participants must be made aware that they are each free to leave the steambath at any time, regardless of whether this action allows any heat/steam to escape the steambath, as long as they notify the supervisor. Another supervisor needs to remain outside of the structure to supervise any early departing students.
- Instruct students carefully regarding the procedure for exiting the steambath, making their way to the site of any related dip/plunge activity, and the boundaries and expectations of students during the dip/plunge.
- If the swimming ability of a student is unknown, before being permitted to plunge/swim in water above their chest height without a PFD the student should be given a **survival swim test** (roll in, tread 1 min., swim 50 m. any style without PFD or goggles) or **endurance swim test** (50 m. swim any style). The selected test will generally be conducted by the lifesaver or may be conducted by another leader as long as it is undertaken in a safe area where rescue would be easy.
- Encourage students to keep any dip/plunge activity brief if the water is cold, especially if they do not intend to return for another round in the steambath, and to get warm and dry following any dip/plunge activity.
- If the activity is being conducted in the evening, encourage students with long hair to consider keeping their hair dry when dipping/ plunging or dousing with a bucket.

Supervision

- On-site supervision, recognizing that not all students will always be visible in the steamy shelter, especially if an evening activity. Audio check-ins are encouraged in these circumstances.
- At least one supervisor inside and one outside the steambath whenever students are inside.
- Ratio as per calculation.
- Employ a buddy system, both during the sweat and during any dip/plunge activity.
- See Aquatics for guidelines related to supervising a dip or plunge activity, particularly if water is or may be above chest height, or if using a river or fast moving creek.

Activity Instruction	Grade 6
Day Tripping (< 3 hours)	Grade 7+
Day Tripping (> 3 hours)	Grade 8+
Overnight Tripping	Grade 9+

There are more ATVs per capita in Canada than anywhere in the world. ATVs are the third leading cause of recreation and sport related injuries to children and youth between ages 5 and 19, behind only cycling and snowmobiling. While highly motivated to driving motorized apparatus, young people tend to be under-equipped physically and psychologically to operate the machines.

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

The activities selected for focus are ATV riding and trail bike riding. However, guidelines for ATVs apply equally to Utility Terrain Vehicles (like an ATV, but with a steering wheel vs. handlebars).

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 motor 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 falls in the program area or en-route to/from it;
- Injuries related to rollovers, falling off the machine or being thrown from the machine (e.g., due to speed, cornering, rough or steep terrain);
- Injuries related to colliding with a moving object (e.g., another ATV or trail bike) or with a fixed object (e.g., a tree, branch);
- Injuries related to ill-fitting equipment, equipment malfunction, or failure to use the equipment properly;
- Injury or delays caused by mechanical breakdown;

- Injuries related to the physical demands of the activity and/or lack of activity skill;
- Weather changes creating adverse conditions;
- Hypothermia due to insufficient clothing;
- Loss of manual dexterity in hands during cold and wet weather;
- Hyperthermia (e.g., heat exhaustion, heat stroke) due to insufficient hydration, overdressing, and/or overexertion in a hot environment;
- Injuries related to encounters with animals in the environment;
- Allergic reactions to natural substances in the outdoor environment (e.g., bee or wasp stings);
- Psychological injury due to anxiety or embarrassment (e.g., re: body size or shape, lack of fitness and/or skill);
- Illness related to poor hygiene;
- Complications of an injury or illness due to remoteness and time to emergency services: and
- Other risks normally associated with the activity and environment.

Safety Equipment: flashlight, candles, pea-less whistle, tool kit, pocket knife, first aid kit, strobe, cell phone or other external communications device, 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, metal cup or pot, shovel, 20 meters 10 mm nylon rope, emergency shelter, sleeping bag, litter bags, and plenty of fuel.

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

Teacher/Leader Readiness

- The teacher/leader must be competent to organize the ATV/trail bike 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 ATV and trail bike related legislation in the province, as it relates to rider qualifications, the riding activity and environment.
- All teachers/leaders should be comfortable on the type of ATV/ trail bike and in the environment selected.
- The teachers/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 teacher/leader should have some skill in basic repair and maintenance of the type of machines used.

- Training may be secured through the Canada Safety Council, the All-Terrain Quad Council of Canada, the ATV Safety Institute or other appropriate source .
- At least one supervisor should have first aid training, the level dependent upon the time/distance from professional first responders (refer to First Aid in Section 3).

Equipment/Location

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 in a relatively short period of time, always go prepared to stay overnight despite any intentions to do otherwise.

- If personal machine, parents/guardians can be tasked with checking or having a mechanic check the ATV/trail bike prior to student using it in the activity to ensure it is in good working order (e.g., tires (condition and pressure), controls, electronics, brakes, lights, oil and fuel, chassis).
- Registration and license plate, insurance documents on board.
- Safety equipment checked and aboard.
- Tool kit checked and aboard.
- First aid kit checked and aboard.
- Parents/guardians are responsible for outfitting their child/ward with correctly fitting appropriate helmets for ATV/trail biking activities, unless the school has assumed this responsibility. Helmets significantly reduce head injuries and are required by law for all riders in BC.
- Teachers/leaders should check that students' helmet straps are properly adjusted and buckled and require students to keep them on at all times while riding.
- Eye and ear protection is important.
- No earphones or cell phones while riding.
- Gloves are important for protection in a fall and from cold and/or wet weather.
- Use solid, stable 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.
- Refrain from using after-market pipes that increase noise and annoy others.
- ATVs and trail bikes have improved considerably due to oil injection, sound reduction measures, variable height exhaust valves, direct injection, on-board computers and 4 – stroke engines, encourage students 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 novice students should be at a well-controlled site or route; avoid roads shared with motor vehicle traffic.
- Laws governing the operation of ATVs and trail bikes differ for private and public property. Ensure that students are aware of and abide by them.

- On private property, where permission has been granted by the owner, there is no license, registration, insurance or age requirement.

Instruction

- The relevant rules of the *Off-Highway Vehicle Act* must be adhered to if going on roadways, including group riding protocol. Transport Canada requires that all vehicles that are taken on roads comply with all Canadian motor vehicle safety standards applicable to the most suitable on-road vehicle class. Off-highway vehicles are designed exclusively for use on undeveloped rights of way, open country and other unprepared surfaces.
- Instruction may include, if/as relevant to the ATV? trail bike activity and group:
  - clothing and footwear for riding,
  - familiarizing to the machine,
  - basic machine checks (as described above),
  - rules of the trail; reading and obeying trail signs,
  - how to position oneself on the machine and how to shift one's weight during basic manoeuvers,
  - understanding the importance of staying alert (inattention causes accidents),
  - how to signal and carry out turns safely,
  - how to maneouver the machine (e.g., accelerating and decelerating, riding up and down hills, cornering)
  - anticipating and responding terrain features; e.g., slippery sections, slopes, ditches, depressions, blind intersections like corners of buildings or heavily treed bush, wet surfaces, standing water, loose gravel, 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,
  - dealing with wet riding surfaces,
  - riding on designated trails and not on roadways,
  - 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,
  - handling gusting headwinds and crosswinds,
  - avoid traveling over ice or snow,
  - 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 an ATV or trail bike 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 not be done..
- Students should be aware that many deaths and permanent disabilities have happened while riding on ATVs / trail bikes when someone's judgement has been compromised through drugs or alcohol.

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 road/trail direction, the leader should ensure no one misses the turn.

ATV • Trail Bike Day Trip: *all of Activity Instruction, plus:*

Equipment/Facilities

- If going off-site, choose routes carefully in terms of the length, grade, road/trail surfaces (paved, gravel, dirt), and consider the presence/frequency of traffic, complex intersections, and/or other hazards.
- Prior to initial use of an unfamiliar route, teacher/leader or designate pre-travel the route or seek other reliable information to secure an estimate of the time needed, road or 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 ATVs / trail bikes (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.
- If ramps are used when off-loading or loading an ATV/UTV or trail bike onto a vehicle or trailer, the ramps must be placed at a suitable angle, be sufficiently wide, and have a surface finish that provides adequate grip for the tires. Unless highly experienced in this task, students should not be involved in the off-loading or loading activity.

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 road or trail (e.g., riding near a water margin).
- Ratio as per calculation (See Section 3).
- Lead and sweep supervisors should carry communication equipment (e.g., cell phones, FRS) to facilitate communication between them, or create a relay system to pass messages up and back.

Special Events

Special events involve activities, celebrations, performances, presentations and/or other occasions that fall outside the scope of normal programs and operations of a school. There are many ways such events can contribute to the school achieving its mission, raising its profile in the community, and raising funds. Aschool may be the primary event provider or may simply participate as one group of many.

Events are of value or import to the school but, where conducted, they must be undertaken with a high priority on safety, loss prevention and cost-effectiveness. Because of the more unique nature of special events, there are potential safety and security risks involved. Each must be appropriately planned for.

Prior to reviewing elements of this subsection for the purpose of planning special event, be able to confirm the following:

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

With this grounding, now review the following:

Known Potential Risks

- the likelihood that some people involved in helping stage the event will have minimal experience in their roles;
- bringing a relatively large group together in a relatively small space (e.g., parking, crowd control, security, emergency procedures);
- installing and using temporary structures and/or other risks related to management or occupancy of premises (e.g., occupancy limits, property protection, utilities);
- transportation (to, from and/or during event);
- lifting and handling heavy equipment or apparatus;
- student safety (e.g., involvement of people in physical activities, sports or games, including potentially higher care activities);
- the involvement of students, including minors, that are not familiar to the school (e.g., securing medical and health information and consents where appropriate);
- set-up of and student involvement in novel experiences such as rides, mechanical devices, inflatables, petting zoos/animals, etc.;
- presentation of fireworks/pyrotechnics;
- environmental impacts (affects on air, land or water); presence/use of any hazardous materials; containment of human waste and garbage;

- entertainers/musicians/performers (e.g., electrical, potential complaints from excessive noise);
- spectator safety (e.g., at a sporting event, performance);
- weather (e.g., extreme heat or cold; wind; precipitation);
- serving or allowing the consumption of alcohol;
- food services and/or other vendors at the site;
- accessibility or accommodation issues (e.g., wheelchairs);
- gambling/gaming;
- first aid and emergency response;
- communications with other organizations and offices (e.g., securing permits and licenses, emergency responders, media);
- financial risks, (e.g., containing costs, managing cash at site, cost if adverse weather or other factors affect projected attendance or cause cancellation);
- good will or reputation risks if the event is unsuccessful; and/or
- other risks relevant to the particular event, activities, location/environment and people present.

Teacher/Leader Readiness

- ensure teacher/leader or other event manager has sufficient ability and experience to organize and coordinate the many others who will be involved; and
- those involved in organizing, directing and leading various aspects of the event must be able to perform their job functions (i.e., recruited, selected, oriented, trained, and supervised as appropriate).

Equipment/Location

- develop an overall plan and draw up a site map illustrating all permanent and temporary structures (e.g., buildings, tents, vendors, permanent or portable washrooms, fences, seating, emergency vehicle access), participant flow patterns, entries/exits, and first aid stations. Consider time sequencing (how many people will be where, when);

Event Management

- develop a risk management plan, approach or strategy to control losses (related to any of the risks noted above) by minimizing the likelihood and severity of incidents (e.g., staff/volunteer selection, training and management, instruction of students; supervision of students; communications equipment and protocols, emergency response plan; signage with locations of nearest emergency exit(s), first aid station, security/lost children/lost and found office);
- develop a security plan that considers the level of security needed at various times and places pre/during/post event, the use of identifiable security personnel, and/or video surveillance, use of photo ID badges for staff/volunteers/media, etc.;
- provide for informed consent (e.g., parental/guardian acknowledgement of risk and consent for minors; signage, written materials (e.g., in registration package) and/or other means of informing staff, volunteers, students and/or spectators about the risks);

- subcontract responsibility to one or more organizations/service providers that can better manage all or some of the risk (e.g., a security company to handle crowd control and/or event security); and
- develop a process for securing feedback on the event from those within the school or otherwise involved; such inputs may help enhance the safety and success of other offerings of the same or other special events.