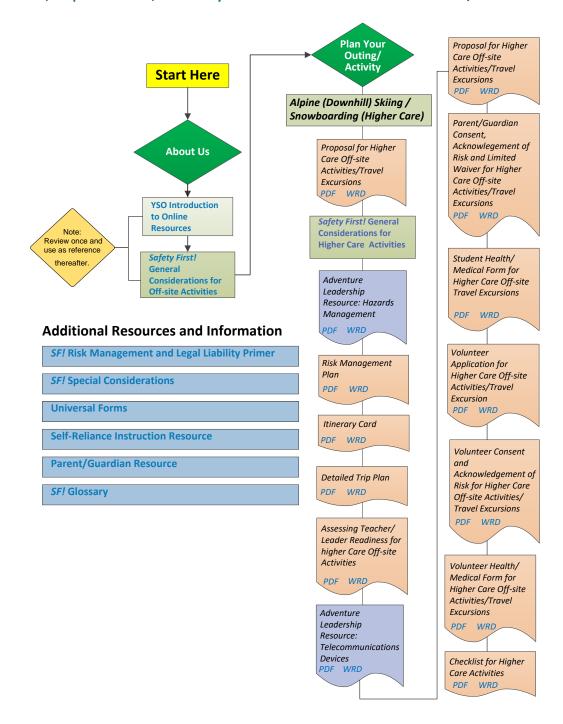


# Alpine (Downhill) Skiing / Snowboarding

Flow Chart, Steps to Success, and Safety Guidelines

Local Grade 4+
Front country/Base Grade 5+
Remote/Extended Grade 7+





## **Safety Guidelines**

## Alpine (Downhill) Skiing and Snowboarding

#### **Known Potential Risks**

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

#### Additional Challenges of Activity in a Cold Environment

- Decreases in body temperature; the colder it is out, the faster the loss.
- Faster cooling of skin wet from sweating or precipitation.
- Magnification of the loss of body heat in the wind, especially if the skin is wet.
- Greater perception of the cold in environments with higher humidity.
- Frostbite of extremities (e.g., nose, ears, toes, fingers) can lead to long term tissue damage.
- Compromise of brain function in severe cold, contributing to increased chance of injury.
- Dehydration in dry cold environments, due to water loss through respiration and sweat.
- Increased injury susceptibility of muscles, ligaments and tendons when they are cold.



• Children get cold faster than adults and suffer frostbite more easily. They may lack of experience in the cold and forget to stay well-dressed; e.g., removing toques, tubes, mitts, and/or getting these items wet while playing so they do not function as well.

### **Common Risk Mitigation Strategies**

#### **Teacher/Leader Readiness**

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

#### Location

- Guidelines related to travel by bus or walking to/from a site are covered in *Travel to/from Off-site Destinations* in the *General Considerations*. If travelling by a means other than bus or walking, see *Transportation* in *Special Considerations*.
- Identify a safe, allowable way to transport equipment considering the safety of the students and minimal potential for damage to the equipment. (e.g., skis and poles may not be permitted in the cabin of a school bus and need to transported in a lower luggage hold which not all buses have). Address any such issues when booking.
- Refer to organization board policy regarding temperature/weather conditions.
- For any site, students should be made aware of the boundaries for the activity.
- When choosing a site, consider the environmental conditions (e.g., sun, wind, wind chill, snow conditions and suitability of terrain). Try to select areas/routes that are relatively protected from the wind unless students are well-dressed for more exposed conditions.
- When the weather is cold, try to plan activities around mid-day, when temperatures may be warmer.
- Be aware that the temperature tends to drop quickly as soon as the sun sets.



#### **Equipment**

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



- Only commercially operated ski/snowboards facilities with suitable teaching areas (i.e., including one or more gentle slopes) should be used. The area should be patrolled by facility staff or members of a recognized ski patrol group.
- Define specific boundaries for the activity; i.e., remind students to stay in-bounds.
- If skiing/boarding at a large resort (e.g., in the mountains), encourage or require (as appropriate) students to carry a trail map or at least consult trail map signs available on-site.
- At least two-three school teachers/leaders should have communications devices to facilitate communication between/among them (e.g., cell phones if in range, FRS, walkie talkies).
- Appropriate layered clothing should be worn (e.g., synthetic or wool close to skin to wick/hold moisture away, fleece or wool in a second layer for warmth, and a wind/water repellent layer (ideally breathable) on the outside).
- Where possible, avoid cotton clothing (e.g., jeans, hoodies, sweat socks), especially on extended day trip or longer outings. If students are planning to wear cotton, encourage them to bring one or more changes of the cotton items, depending on the intended duration of the outing. If a student gets very cold some distance from shelter, changing into dry clothing may help.
- Avoid excessively restrictive clothing (e.g., tight boots or gloves); body parts with restricted circulation are more subject to frostbite.
- Headgear and gloves/mitts should be required for anything beyond class instruction on a local site in mild conditions. Over 50% of body heat can be lost through the head and neck. Ears, noses and cheeks are subject to frostbite, so keep them covered when it is cold.

#### Instruction

- Ensure students know where to go for help; e.g., how or where they may contact a teacher/leader over the ski day.
- Students should be divided by ability level (through ski-off assessment and/or parent/ guardian's written classification) and then allowed on hills/trails commensurate with their skills and experience. Parent/guardians' written descriptions of the students' levels help the ski area determine roughly how many classes at each level they need to be prepared to provide.
- All students should receive a ski or snowboard lesson, appropriate to their current ability.
- NON-SKIERS (never skied/boarded before) and NOVICES (minimal experience and control on skis/boards) should receive a lesson prior to any access to any lifts and runs (i.e., free skiing/boarding). BEGINNERS (good control on novice hills), INTERMEDIATE (good control on a variety of hills) and ADVANCED (experienced and competent skier/boarder) students may be allowed some free-ski/board time prior to their lessons, but only on hills within their capacity.
- Any skier/boarder except an ADVANCED participant may be re-assessed and upgraded over the
  day as they improve. Some resorts will mark the upper limit of lifts or runs a participant may use
  on his or her ticket. ADVANCED participants may be provided a special marking (e.g., a piece of
  surveyor's flagging tape as an advanced lesson) to denote their access to more challenging
  terrain and/or an advanced lesson.
- When choosing a site for group lessons, consider sun, wind and snow conditions as well as suitability of terrain.
- Students should be led through a warm-up to reduce the potential for injury or residual muscle soreness.



- Remind students of the dangers of skiing/snowboarding out of bounds.
- Students should not engage in hot-dogging or jumping activities they are not well-trained to undertake.
- Familiarize skiers/riders with the **Skier's Responsibility Code** (before going and/or on-site) and require them to follow it:
  - Ski/ride in control; be able to stop or avoid other skiers/riders or objects at all times.
  - People ahead of you have the right of way; avoid them.
  - Do not stop where you obstruct a trail or are not visible from above.
  - Look up before merging onto a trail.
  - Observe all posted signs and warnings. Keep off closed trails and out of closed areas.
  - Learn how to load, ride and unload from lifts safely prior to using them.
- Familiarize skiers/riders with the **Lift Use Guidelines** (before going and/or on-site) and require them to follow these guidelines:
  - Only use lifts you are approved to ride.
  - Observe signage at lift loading and unloading area and along tow path.
  - Refrain from horseplay while waiting in line or when on lifts.
  - Follow instructions of lift operator.
- When Using Surface Lifts:
  - Remain in the tow path; avoid zigzagging.
  - Unload only at designated area unless lift stops and ski patrol directs you to unload.
  - If you fall, clear the path immediately, removing skis if necessary.
  - When Using Chair Lifts:
  - Always use the restraining bar, if chair is so equipped.
  - Remain seated with skis pointed forward and do not rock the chair.
  - Never jump from a chair.
  - If a chairlift stops, remain calm and wait till it restarts. Follow ski patroller directions in the event of an evacuation.
  - Do not lift the restraining bar until signs or lift operator direct you to do so, take all of your belongings when dismounting the chair, and clear unloading area promptly.
- Prior to the activity day(s) discuss proper clothing, including headgear, mitts/gloves, tubes, insulating and protective layers (e.g., have students visualize being stuck on a chairlift for an hour or more in the worst weather they can anticipate for the day).
- Encourage students and parent/guardians to consider the combined effect of cold and wind when planning what to wear for an outdoor session/trip.
- Instruct younger students that they are responsible for notifying a supervisor if they feel too cold to continue an activity.
- Keep well hydrated during active outings; hydration helps prevent cold-related injuries and conditions.



- Discuss frostbite and hypothermia with students and how to prevent, recognize and treat (at a grade/age-appropriate level). Identify and deal similarly with other winter related injuries (e.g., snow blindness) as relevant to the students, activity and environment.
- Students should be aware of the option of taking off their skis/board and walking down the hill if conditions become unsafe.
- Students should know that if they are involved in or witness a collision, they are to remain at the scene and identify themselves to the ski patrol.
- Students should know that violation of ski area rules, the Skier/Rider's Responsibility Code or Lift Use Guidelines might result in loss of their ski privileges.

#### **Supervision**

- In-the-area supervision.
- Ratio as per calculation (See Supervision in General Considerations for Higher Care Activities).
- A buddy system should be used, pairing skiers/riders of relatively equal skill and fitness, with buddies also checking each other for signs of hypothermia, frost nip, etc.
- Leader should establish check-in times during the day for all group members.
- Duties of the supervisors should be clearly outlined, including circulating to all hills that students are using for skiing/boarding and the ski lodge. One teacher/leader from the school should be in a designated location/area that students know and can go to if they have a problem.
- Ratio as per calculation (See Supervision in General Considerations for Higher Care Activities).

#### **Notes**

- 1. If, when reviewing the guidelines above, terms and concepts presented are unfamiliar, this is a strong indicator that additional personal leadership preparation (e.g., a training course, reading) or contracting a qualified service provider is advisable.
- 2. This document is not intended as an instructional guide. The teacher will need to use other references to learn how to teach students the skills (e.g., how to brake when inline skating, how to do a diagonal stride when cross-country skiing).