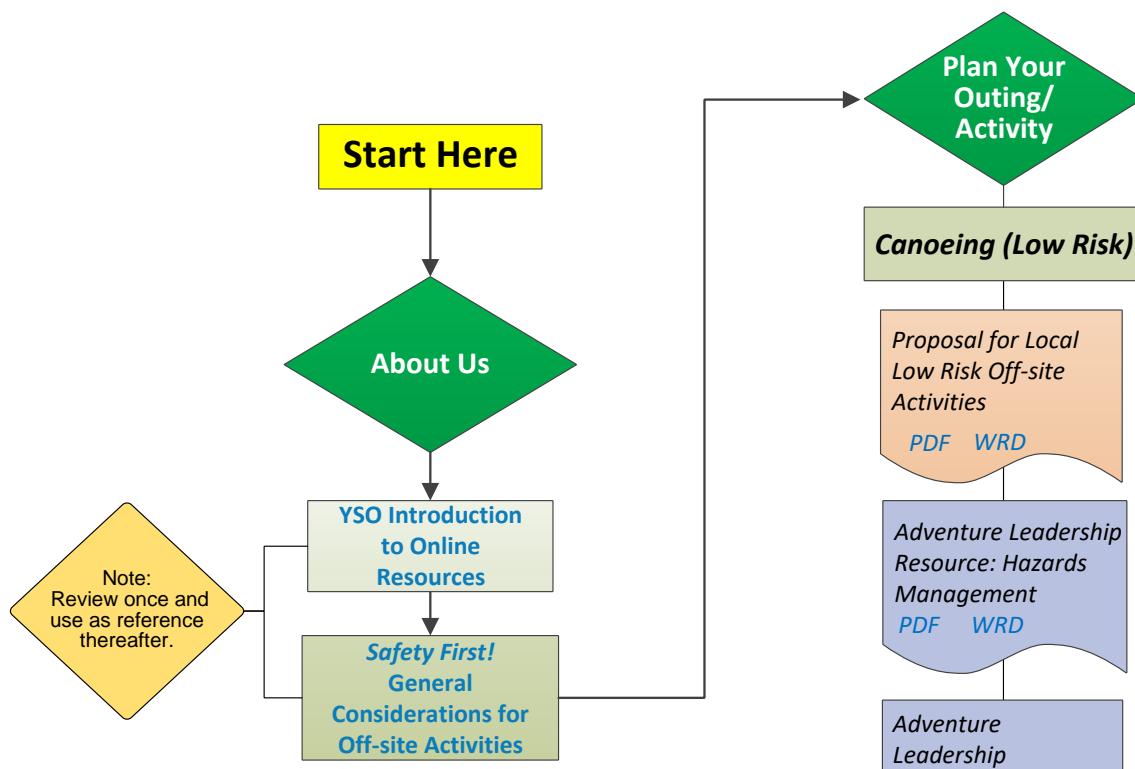


Canoeing (Normal Risk)

Flow Chart, Steps to Success, and Safety Guidelines

On-site Instruction Grade 1+
Day Tripping (Low Risk) Grade 3+

Low Risk	Higher Care
<p>Criteria:</p> <ul style="list-style-type: none"> Local, confined venue (e.g., municipal pool, pond) Generally of short duration (less than 3 hours) Low inherent risk in the activity Clear boundaries for activity Near support services: e.g., buildings or vehicles accessible Close to emergency services: less than 20 minutes from EMS arrival on-site Teachers/leaders do not need significant specialized training to implement the guidelines Minimal preparation of students required; less than an hour 	<p>Criteria:</p> <ul style="list-style-type: none"> Substantial body of water (e.g., lake, river) Semi-remote to remote location: out of the community (e.g., river, wilderness lake) May be of longer duration (more than 3 hours) Higher inherent risk in the activity; (e.g., Grade 2 river) Lack of clear boundaries for activity Potentially far from support services: buildings and/or vehicles not immediately accessible Not close to emergency services: more than 20 minutes from EMS arrival on-site Teachers/leaders need specific training in the activity to conduct it safely Students need significant preparation; more than an hour



Additional Resources and Information

[SF! Risk Management and Legal Liability Primer](#)

[SF! Special Considerations](#)

[Universal Forms](#)

[Adventure Leadership Resource](#)

[Self-Reliance Instruction Resource](#)

[Parent/Guardian Resource](#)

[SF! Glossary](#)

Safety Guidelines

Canoeing – Normal Risk

BC offers some of the finest paddling opportunities in the world. Exploring the province, and/or other parts of Canada by small craft (canoe, Voyageur canoe, kayak, raft, etc.) is a tremendous way to learn about and come to appreciate, understand and care about Canada's natural and cultural heritage. While there are unique inherent risks associated with water travel, these risks are largely manageable by adhering to the general and specific guidelines shared herein.

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 falls in the program area or en-route to/from it;
- Injuries related to capsize of craft or falling out of craft;
- Injuries related to collisions with movable (e.g., other boats or paddles) or immovable (e.g., rock) objects;
- Injuries related to equipment (poor fit, improper adjustment, malfunction, or becoming tangled in apparatus; e.g., foot snag in bailer cord);
- Injuries related to lifting, carrying, walking with, or putting down the craft and/or packs;
- Other injuries (e.g., blisters, sprains, strains; acute or overuse injuries/conditions);
- Drowning or near drowning;
- Injuries related to the physical demands of the activity and/or lack of activity skill;
- Weather changes creating adverse conditions (e.g., cold, wind, precipitation);
- Hypothermia due to remaining in cool/cold water too long or due to insufficient clothing;
- Loss of manual dexterity in hands during cold and wet weather;
- Hyperthermia (e.g., overheating) due to insufficient hydration, overdressing and/or overexertion;
- Illness related to poor personal hygiene, or failure to purify drinking water;
- Allergic reactions to natural substances (e.g., wasp or bee stings or jelly fish stings in ocean);
- Injuries related to encounters with animals and plants in the environment;
- Psychological injury due to anxiety or embarrassment (e.g., re: lack of skill, body image);
- Complications of an injury/illness related to remoteness and time to emergency services; and
- Other risks normally associated with participation in the activity and environment.

Common Risk Mitigation Strategies

Canoeing On-site Instruction:

Teacher/Leader Readiness

- The teacher/leader must be competent to organize the canoeing activity; to demonstrate, instruct and supervise it; and to effect rescue and emergency procedures as necessary.
- If craft are to be transported by trailer to and from the water, the individual driving the tow vehicle must have sufficient experience and skill to manage these tasks safely.
- The teacher/leader and assistant leaders must be capable swimmers, able to manage themselves confidently in the water in the selected environment, while wearing a PFD. To be counted in the supervision ratio, at a minimum, they should each be able to successfully complete a survival swim test (roll into the water, tread 1 min., swim 50 m. any style while wearing a PFD and no goggles).
- Training may be secured through the Recreational Canoeing Association of BC, Paddle Canada, Canoe/Kayak BC or other appropriate sources.
- If more than .5 km from the school, at least one supervisor should have first aid training, the level determined by the time and distance to Emergency Medical Services (See *First Aid* in the *General Considerations for Off-site Activities*).

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., canoe paddles may not be permitted in the cabin of a school bus and need to be transported in a lower luggage hold - which not all buses have). Address any such issues when booking.
- A pool or waterfront environment may be used (e.g., pond, small lake, swimming pool).
- When selecting an appropriate teaching site/route for a boating activity, consider:
 - the temperature of air (including wind chills) and water,
 - length of time a participant(s) may spend in the water if a boat is upset,
 - rate at which the water is moving (if a river, stream),
 - ease of access to/egress from site or watercourse, and
 - the skill/experience level of the students.
- Non-established waterfronts should be researched before swimming or practicing boat rescues (e.g., sufficient depth).
- Up to three students can be assigned to each canoe.

- Postpone paddling if there are indications of dangerous weather (e.g., lightning, storm activity, high wave conditions, or a strong off-shore or very gusty wind - particularly on shallow lakes, wide rivers or the sea).
- A rescue craft should be on shore or in the water at a waterfront site while students are out on the water, or there must be sufficient craft and leaders on the water to provide rescue.
- All paddling in diminished conditions should be done near shore unless doing so would increase risk (e.g., strong off-shore winds or strong on-shore winds with a rocky shoreline).
- At the end of each trip, and upon changing watercourses, wash any mud, algae or plant fragments from boats, paddles and feet to avoid transmitting any plant or animal pest species to previously uninfected places.

Equipment

The following equipment suggestions meet or exceed the Transport Canada, Office of Boating Safety minimum standards and recommendations. Standards and regulations change periodically and it is the responsibility of vessel operators to comply with current standards. It would be prudent to consult the office or website for current information before planning any boating activities. Go to

www.boatingsafety.ca

- Craft should be checked for leaks, broken seats, etc. and paddles for cracks and splinters.
- If transporting boats to and from usage site, ensure that they are properly secured on a trailer (with safety chain in place and functioning lights) or well-lashed on a secure rooftop carrier.
- Do not exceed the weight load or capacity for the craft used.
- Correct fitting, Transport Canada/Canadian Coast Guard/Fisheries and Oceans Canada (or any combination of the above) approved PFDs/life jackets must be worn properly and done up at all times by all group members while on/in the water. Select bright (orange, yellow or red) PFDs for visibility, if possible. Lifejackets have the added advantage of turning the wearer onto his or her back, even if unconscious, while PFDs will not do this. Regardless, due to availability, comfort and cost, almost all recreational paddling is done with PFDs vs. life jackets.
- Students under 36.3 kg (80 lbs.) should wear PFDs that include a large collar for head support, buckled waist belt or elastic gathering, a buckled crotch strap that prevents the PFD from slipping over the student's head, and reflective tape.
- PFDs should be pre-use checked to ensure they are in appropriate condition (e.g., buoyant, straps/buckles/zippers work, straps well-attached). Clean dirty PFDs with mild soap and water, dry in open air, and use appropriately (e.g., not to kneel on or as a boat fender).
- Be aware that inflatable PFDs are not approved for anyone under 16 years of age or under 36.3 kg (80 lbs.), on a personal watercraft or for whitewater paddling activities.
- A sound-signalling device is required equipment onboard each craft. Attaching a pea-less whistle to each participant's PFD is an ideal way to achieve this requirement. Alternatively, each craft would need to be outfitted with a compressed gas horn or electric horn.

- There must be a bailing device in each craft (e.g., bailer in canoe, multiple-paddler craft, sponge in kayak, bilge pump in sea kayak or any of the above craft). Bailers must hold at least 750 ml (0.2 gallon) and be made of plastic or metal. A 4-litre jug, well washed out and with lid on with the bottom cut off works well. Cut at an angle up toward the handle so it works as a scoop.
- There must be a 15 m (minimum) length of buoyant rope (single piece vs. several shorter pieces tied together) in good condition attached to and accessible in the craft or (preferably bagged, but at least coiled and held together with an elastic/bungee, so it doesn't pose a foot entrapment hazard).
- Appropriate lightweight and securely fastened footwear (e.g., runners, neoprene booties) should be worn to protect the feet from rocky river bottoms or on ocean trips where there are barnacles. Rubber boots are fine for flatwater paddling in all but kayaks.
- Glasses should be strapped/tied on or have a small float attached.
- Teachers/leaders should have rescue throwbags or coiled ropes, fastened to the boat and be well versed in their use.

Instruction

Students should be comfortable in the water. Because they are wearing PFDs, it is not essential that they can all swim, but it may be physically and/or psychologically beneficial (e.g., reducing fear of falling in) to introduce them to/review survival swimming as relevant to their anticipated paddling situation (e.g., reorienting themselves after rolling in, treading 1 min. and swimming 50 meters, all while wearing a PFD and no goggles).

- Self-rescues into dry and/or swamped canoes should be discussed and, weather and water conditions permitting, actually practiced.
- Non or weak swimmers should be buddied with competent swimmers for tandem canoeing;
- Students should be instructed and secure fundamental mastery in basic canoeing skills where such instruction will support safe participation in the canoeing activity and environment selected. Relevant skills taught may include:
 - lifts and carries,
 - launching from dock or beach as appropriate,
 - entry/exit from canoe,
 - body position and balance,
 - basic strokes and recovery braces,
 - basic maneuvers,
 - paddling on either side and at either end of the canoe, and
 - switching paddling sides and synchronizing strokes.
- If it can be done safely, an “exploratory paddle” at the waterfront site is allowable before formal stroke and maneuver instruction.
- The stern paddler should have a good grasp of basic steering, including use of the ‘j’ and stern sweep strokes.

- Students should be taught how to handle anticipatable wind and wave conditions, and currents and obstructions if on a river.
- The bow paddler should be taught how to scan the path ahead for obstacles, to communicate their presence to his or her partner, and how to initiate evasive action.
- Students must be taught general procedures if their craft upsets. For example,
 - call for help,
 - attempt to hang onto paddle and craft (unless doing so places them in danger; e.g., being blown away from shore by off-shore wind, dangerous rapids downstream), and if in a current:
 - stay upstream of boat,
 - keep feet up at the surface (to avoid entrapment) and downstream of body (to fend off rocks or other obstructions),
 - watch for a rescue craft or throw rope coming or an eddy or slack water that they can use to work their way to shore.
- Students must be taught general procedures if another craft upsets (e.g., signalling rest of group, rescuing people first, then craft and/or other gear).
- If lake or flatwater paddling, students may be taught skills such as re-entries in deep water, changing places, etc. as appropriate.
- Tandem paddling students should be taught to communicate with each other.
- T-rescue and/or towing rescue procedures may be taught and practiced as appropriate (weather and water conditions permitting).
- If river paddling, students must be taught emergency procedures relevant to a tip (their own or another boat).
- When paddling rivers, students should be taught how to avoid foot entrapment (i.e., float with feet up near the surface until it's shallow enough to stand safely).
- If river paddling, students should be told how to catch and hold onto a throwbag or throw rope when being rescued.
- Students should be taught universal whistle signals and paddle signals (i.e., directional, emergency and group up), and the importance of passing back paddle signals.
- Warn students not to drink untreated water from any lakes, rivers or streams.
- If in tandem or solo craft, groups should consist of a minimum of three craft and students should be instructed regarding safe group size.

Supervision

Ensure students are appropriately supervised (considering age, maturity and context). In addition to the guidelines in *Supervision* in the *General Considerations*, apply the following as appropriate:

- In the area supervision. On-site supervision when teaching new skills or if working with students under Grade 4.



- Students under grade four should be restricted to canoeing in small, well-defined learning environment.

The suggested minimum supervisor to student ratios for off-site participation in this activity are:

Student Grade	Number of Supervisors to Students
1 – 3	1:8 / 2:16
4 – 7	1:10 / 2:20
8 – 12	1:12 / 2:30

Canoe Day Tripping: All of Canoeing On-site Instruction Considerations, plus the following:

Location

- Ensure that the reach to be paddled is free of major hazards such as dams or weirs or that the students are aware of these hazards, understand which side to get out at and have the skills to do so reliably with a good margin of safety.
- At this level (short, local day trip), the paddling activity will occur on a lake or Grade 0 or 1 river (i.e., no fast water or rapids). Consult the International River Classification System for more information on the interpretation of information related to the Grade of river reaches (sections or runs) and Class of specific rapids.

Equipment

- Use appropriate waterproof canoe tripping bags/packs/jugs for extra clothing or double-wrap in plastic bags and then place in abrasion-resistant backpacks or duffels.
- Bring a thermos of hot, sweet fluid.

Instruction

- Ensure students have sufficient river reading and boat negotiation skills to avoid anticipatable hazards (e.g., rocks, bridge abutments).
- Generally avoid open water crossings (lake or ocean), particularly if wind, surface chop, deadheads, and/or currents are unfavourable. Skirting the shore is usually preferable (within 80 meters). Tell students what they are to do if their or another canoe(s) gets blown off-course and have a plan for retrieving them.
- If in doubt, get out and scout! While stopping a group and going to shore takes time, modelling of conservative travel is more important.

- If encounters are a possibility, students should be instructed as to how to behave while near marine or terrestrial animals (e.g., look from a non-threatening distance; do not touch or feed).

Supervision

- In-the-area supervision.
- Ratio as above, with additional competent leaders needed for larger groups negotiating water with more hazards (e.g., large open body of water; moving water).
- Where the physical fitness and/or technical canoeing skills of students vary, each boat should be heterogeneous (i.e., less capable paddlers partnered with more capable).
- In situations where rescuers will need to be highly effective and efficient, the teachers/leaders should avoid paddling with particularly weak paddlers in the group.
- The minimum grade recommendations assume each student is actively paddling with another similarly aged student (e.g., required to manage his or her end of the canoe). If there are one or more older, stronger paddlers in each craft to support and cover for them if they cease paddling or paddle ineffectively, then students younger than those noted can be taken safely on most types of outings (e.g., a float down a mellow Grade 1 river in a canoe can be enjoyed by students of all ages with capable adult support in the boat).

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 student the skills (e.g., how to brake when inline skating, how to do a diagonal stride when cross-country skiing).