

Canoeing

For

Girls

**Girl Guides of Canada-Guides du Canada
Alberta Council: Alberta Camping Committee**

Canoeing for Girls

- Goal:** To give Guiders the required knowledge that is necessary to teach girls basic canoe skills.
- Purpose:** To learn basic knowledge and orientation for small water craft and to provide Guiders with basic canoeing safety knowledge and canoe skills.
- Information:** The information covers Boat Safety Skills, Canoe Safety Skills, and Canoe Tripping Skills.
- Note:** The skills are basic introductory activities and do not have to be executed perfectly. The girls should understand which stroke is used in specific situations and have the ability to move the canoe in the desired direction.

When canoeing with girls:

the Responsible Guider must consult the current edition of *Safe Guide* and submit the required forms and documentation to the Water Activity Adviser.



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This canoe manual was compiled by Mary Murray. The information included in this manual is based on the skills that are necessary to take girls canoeing. It covers Boat Safety Skills, Canoe Safety Skills and Canoe Tripping Skills.

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The Difference between a Life Jacket and a PFD

A Lifejacket is a flotation aid that will float most unconscious people into a face up, head out of the water position. They are used by law on commercial vessels but because of their bulky design they are not practical for everyday use.

A PFD is a personal flotation device designed for flotation and will keep a conscious person's head out of the water in calm conditions. The closed cell PFD provides high buoyancy body protection from obstacles and helps keep you warm.

The wearing of a Transport Canada approved PFD, personal flotation device, is mandatory for all on the water activities. A properly fitting PFD will fit snugly around your torso without inhibiting your mobility and will stay in place when you float in the water. To test the fit pull up on the vest, if it rides up near your chin or obscures your vision, it's either too big or not cinched properly. Also make sure your PFD fits comfortably over layers of clothing.

Follow these tips for best results when you wear your PFD

- Zip the PFD up completely
- Tie or buckle the waistband tightly
- Cinch in any adjustment straps on the sides and front

Things to consider when choosing a PFD

- The PFD must be approved by Transport Canada (check the label)
- The PFD is in good repair
- The canoeists can move their arms freely
- It is the appropriate size in relation to the weight and height of the person wearing it. (snug but comfortable)
- It is relatively easy to swim in

Though PFDs come in a variety of colours, go for the luminescent dazzle. The brighter colours are easier to spot in the water in the event of an emergency.

How to Take Care of a PFD

Your PFD should be checked regularly for rips, tears, and damage to seams, buckles and straps, water logging, mildew, shrinking or hardening of buoyant materials.

The sun cooks the life right out of both shell fabric and flotation fillings. Salt water is an obvious enemy but so are body salts from perspiration. Other unknown contaminants found in our less than pristine lakes and streams are also very hard on our PFDs. Always rinse your PFD after every outing. Make sure it is dry before storing and store in a cool, ventilated area. An excellent way to delay UV damage is to coat your PFD fabric with 303 Protectant at least twice a season.

PFDs may lose buoyancy over time. The in-water performance should be checked annually to ensure your PFD provides adequate buoyancy for your needs. It should support your weight with your nose and mouth above the water.

Don't

- Dry-clean or alter a PFD
- Use harsh cleaners
- Attach to the boat
- Leave in the sun for extended periods
- Put heavy objects on the PFD
- Use as a kneeling pad or cushion

What a Boat under 5.5 Metres Must Have On Board by Law

Your equipment provides you with a lifeline to enjoy the best and endure the worst conditions.

Safety Equipment

- One Canadian approved PFD, personal flotation device, of the appropriate size for each person on board
- Bailing device (for an easy to use bailer - use an empty chlorine bleach bottle with a handle, cut the bottom from the bottle and be sure and leave the cap on)
- Extra paddle
- An efficient sound signalling device (whistle or horn with an audibility range of not less than 600 metres or 0.5 miles)
- One buoyant heaving line of at least 15 metres (throw bag)
- If canoeing after sunset, before sunrise or in periods of restricted visibility a watertight flashlight or navigation light is required.

Why Boats Have Maximum Capacity Plates

Boats not over 5.5 metres (18 ft) in length and powered by an outboard engine of 10 horsepower or more must have a capacity plate permanently attached in plain view. This gives the outboard engine size recommended for the hull, based on the recommended gross load capacity for that vessel. Gross load includes the weight of the engine, fuel, passengers and gear.

Why Passengers and Equipment Should Be Evenly Balanced In the Boat

Once aboard the canoe check the trim – the horizontal position of the canoe relative to the water. Canoes are designed to perform best when level. Next make sure your gear is centred as much as possible to make it easier to manoeuvre the canoe. Gear should not be stacked higher than the gunwales, as this will cause problems in a stiff breeze. A canoe may be trimmed so that it rides even or down at the stern or down at the bow. A canoe almost always handles better though when loaded dead level. Neither the bow nor the stern should be higher. Uneven distribution of the weight can help on windy days. A light bow will give you problems in a head wind and you will have difficulty staying on course. A light bow in a following wind provides good directional control. Whenever possible keep the weight as close to the centre and as low as possible in the canoe.

The freeboard is the distance from the waterline to the top of the gunwales at their lowest point. The greater the freeboard, the greater is the ability of the canoe to handle rough water. While some manufacturers recommend a minimum load rating of a 6 inch (15 cm) freeboard, most canoeists would not think of using a canoe so heavily loaded. A 9 inch (23 cm) minimum is a more responsible amount.

Float Plan and Who Should Look After It

Before departing on any canoe trip, a trip plan should be completed and handed to a responsible person on shore. A trip plan includes the description of the boats, detailed itinerary, a participant list, when you expect to return and who to contact in an emergency. The person in charge should choose the responsible person to leave the information with. Be sure on return, to close the plan with the person, to prevent unnecessary alarms and searches.

Safety Skills

At a pool or at the waterfront with an experienced instructor, demonstrate the following items.

Boating Swim Test

While wearing a PFD, participant must:

- Swim 75 metres
- Demonstrate the HELP position for 2 minutes
- Tread water for 5 minutes

Other Safety Skills

- Learn how to enter and exit a boat safely
- Test the boat for stability by rocking in the kneeling, sitting, and standing positions. Discuss the danger of changing seats/moving around in a boat and show the best position of passengers and equipment for good stability.
- Become familiar with getting out of a boat and re-entering the boat in deep water.
- Participate in a controlled capsized. Learn how to get into a swamped boat from the water. Paddle the swamped boat with your hands then with the paddles back to shore. Sound your signalling device.
- Use a reaching assist from a boat with a partner in the water.
- Demonstrate to the girls how to do a canoe over canoe rescue.
- Learn how to empty and right a canoe in shallow water and at the edge of a dock.

The Safety Skills are an important part of preparation for any canoeing activity. They can be completed at the time of the event at the waterfront but they can also be completed at a pool in the winter.

It is a good idea to complete the swim test at the same time.

Swim Test for Swimming

For swimming in water higher than waist deep

- Swim 50 metres using any stroke, without a PFD

Choice, Care and Parts of a Paddle

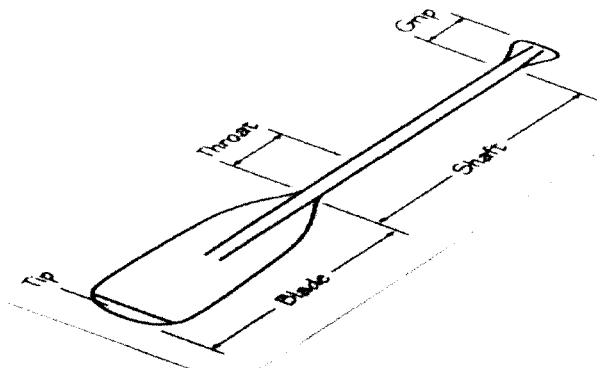
Basic Design

All single paddles are similar in design, though they differ in detail.

- The grip may be pear-shaped or T-shaped. The pear shape is comfortable in the hand and is widely used for general paddling. The T gives the paddler the ability to hold on more firmly than the pear and is favoured by white-water paddlers.
- The shaft is straight but may be either round or oval. There is no reason for the round and oval shape, it's purely a matter of which feels better in your hand.
- Blades are made in three general shapes: beavertail, tulip and white water. Beavertail blades are usually 13 to 18 cm (5 to 7 inches) wide and 36 to 50 cm (14 to 20 inches) long. Most are made from a single piece of wood. The beavertail shape is the easiest blade for a novice canoeist to handle. The tulip shape is 20 to 25 cm (8 to 10 inches) wide and 50 to 61 cm (20 to 24 inches) long. The tip has rounded corners. The blade moves a greater volume of water. This is the most popular shape used by most canoeists. The white water paddle has the same dimensions as the tulip. The main difference is that the corners are square, not rounded. The white water paddlers make manoeuvres by jamming the paddle into rocks and the bottom in swift water. The square tip holds better than the rounded one.

Weight

The more expensive the paddle the stronger and lighter it will be. If you think a few ounces is unimportant, try to imagine what those few ounces will feel like as you swing them back and forth a couple of thousand times a day.



Parts of the paddle: Grip, shaft, throat, blade and tip.

Proper Paddle Length

To find a paddle's shaft length, subtract the blade length from the paddle's total length.

Try to find a paddle with a shaft length roughly the same as your measurements in one of the following methods. You can paddle longer if you are using the proper size paddle.

A longer paddle provides more leverage for power but requires more effort from the paddler to perform each stroke. Here's how to get a rough indication of a suitable paddle size:

On the water - 1

- Sit comfortably in the canoe on water
- Place the paddle perpendicular to the water surface with the blade submerged to the throat.
- The top of the paddle grip should reach to your nose

On the water - 2

- Sit in a canoe and measure the distance from the height of your nose to the water line

Without water

- With your feet on the ground, crouch down and elevate your buttocks until they reach the approximate height of the canoe seat you're likely to use
- Invert your paddle so the grip rests on the floor and the blade is near your face.
- On a paddle of correct length the throat of the blade should reach to your nose

Standing

- Stand the paddle on the ground in front of you
- The grip should fall between mid chest to your nose

Sitting

- Sit upright in a chair and have someone measure the distance from the seat to your eyebrows. This measurement equals an approximate recommended shaft length.

Paddles at a Glance

Material	Strengths	Weaknesses	Price
Plastic	Very inexpensive Durable	Heavy Unresponsive	\$12 - \$20
Aluminium and plastic	Very inexpensive Light	Plastic blade flexes with age Plastic blade can crack Aluminium shaft feels cold	\$16 - \$25
Aluminium and fibreglass	Light Good midrange price Aluminium shaft is often wrapped in plastic sheath	Tip of fibreglass blade can abrade	\$20 - \$90
Wood	Light Warm feel Flexes slightly Laminated wood is attractive	Requires maintenance Better laminates can be expensive	\$20 - \$175
Foam/Kevlar Graphite	Light Responsive	Expensive	\$150 - \$250

Paddle Care

Synthetic paddles need little attention. Wooden paddles, whether solid wood or laminates, require a more careful approach. Even the toughest epoxy or varnish coating can crack. After each use a wooden paddle must be carefully inspected for any signs of damage that would permit water to seep into the inner wood. Usually a bit of sanding and a light touch of oil or polyurethane can take care of the problem. Solid wood paddles are far more easily damaged than wood laminates. Should a blade crack, you can mend it with fibreglass regardless of the material of the blade. All paddles should be stored upright in a dark, cool place. Synthetic materials will in time, deteriorate under the sun's ultra-violet rays and aluminium will oxidize.

Choosing a Paddle

Nearly every canoe enthusiast will eventually buy a paddle of their own. Before making a purchase, first decide what kind of canoeing you are most likely to do. If you anticipate chiefly recreational canoeing on flat water, consider a tulip blade and a straight shaft. If you anticipate cruising the wilderness on long trips, consider choosing a shaft with a bend of 10 degrees. If you are involved in both light rapids and river cruising, look at the white water paddles with straight shafts. If you are eager to get into white water playing, then a square-tipped white water blade is a must. Next consider the weight of the paddle, which is an important consideration if you are doing a lot of paddling. Proper length is the next consideration. Finally, consider the aesthetics of the paddles you see.

Proper Clothing, Footwear and Equipment

Checklist of equipment for day tripping

Besides the obvious you will need:

- Life jackets and paddles
- Complete change of clothing for everyone (in a waterproof pack)
- Light jacket or sweater
- Gloves, brimmed hat and sunglasses
- Rain gear
- First-aid kit
- Pocket-knife
- Matches
- Ropes for the ends of your canoe (painters)
- Bailer, throw bag
- Water bottle, snacks and so forth
- Flashlight: it's amazing how many trips begin in the daylight and end in darkness
- Map of route and compass

Allow no substitutes on the equipment list. You are the responsible adult on this trip and everyone in your charge must be prepared

Complete change of clothes

The inevitability of getting wet, even if it's just from paddle splash, is an important consideration when you dress to canoe. The possibility of capsizing always exists and often happens near shore while getting in or out of the canoe, and you end up soaking yourself in a mere 30 cm of water. The best clothing for canoeing is loose, quick-drying apparel that feels comfortable when you are sitting and doesn't restrict your movement.

T-shirt – use cotton in warm weather, because it cools you off by evaporative cooling. In cold weather, use polyester or other synthetic, because they insulate much better and wick sweat away from your skin. Cotton takes a long time to dry and in cold weather it will take the heat out of your body and cause hypothermia.

Shorts – take nylon shorts as they dry quickly and are lighter.

Pants – take nylon pants, as they are quick to dry, lightweight and comfortable. In cold weather take a pair of polyester fleece pants as well as the nylon ones. Pants with lots of pockets are best. Jeans are a terrible choice as they get wet and stay wet. They take the heat out of your body even in very mild weather.

Socks – Wool, fleece and synthetics are best as they keep you warm even when wet.

Shoes - Lightweight shoes are best, light runners or sandals in warm weather because they dry very quickly and are quite comfortable. Don't even bother trying to keep your feet dry.

Jacket or sweater - Shirts, jackets, pullovers, and vests are all good choices for a warm layer. Take at least three layers of warm clothing if it is cool. Warm layers should be made of fleece, goose down, synthetics or wool. The more compressible the better as they take up a lot of space.

Gloves - Take a pair of gloves to keep your hands warm in windy or cool weather. They must be lightweight so they don't interfere with paddling.

Brimmed hat and sunglasses - A wide brimmed hat will keep the sun off your face. The hat should have a chin strap for windy days. Sunglasses will cut the glare off of the water.

Rain-gear - It should be lightweight, windproof and breathable. Rain gear can also be worn when it's not raining to keep the wind out. Nylon is the most common fabric since it is very abrasion resistant, but polyester is much more UV resistant. Take a jacket and pants, not a poncho.

First-aid kit - Make sure you have a well-stocked, appropriate first aid kit, for the remoteness of the canoe trip.

Pocket-knife - Take a good quality-folding knife and it should be attached to your lifejacket. The knife should be sharp.

Matches - Matches should be packed in a zip-lock bag or plastic matchbox. Wooden matches are best as they light on anything.

Ropes (painter) - Every canoe should be equipped with a painter, which is the canoeist's term for the 4.5 to 6 metre (15 to 20 foot) length of rope fastened to the bow for use as a tie rope, a rescue line and so on. While canoeing the painter is kept coiled and is placed on the deck in front of the bow paddler. A heavy rubber band will keep the rope from uncoiling. Never leave the painter loose in the canoe where it can wind about your arms and legs if you capsize.

Bailer - Keeping a canoe clean and dry is important. Even a few centimetres of water sloshing inside the canoe will affect your ability to manoeuvre. If you can't bail it out quickly, put ashore and dump the water out. The two essentials for drying and cleaning are a bailer and a sponge. For a highly useful bailer, cut the bottom from a 2-quart plastic bottle leave the cap on. An empty chlorine bleach bottle with a handle is especially easy to use.

Throw bag - A canoe filled with water can weigh more than a half-ton. A sturdy rope is needed to haul such a load in an emergency. A throw bag or a 1 cm soft braid, floating polypropylene rope with a breaking strength of at least 1134 kg (2,500 lb) is required to effectively carry out a rescue.

Water bottle - Nalgene bottles with a wide mouth are the best. The wide mouth makes mixing drinks much easier. The insulated covers help keep your water or drink hot or cold. Drink 2 or more litres a day. Fill up your bottles at every opportunity, even if they aren't empty.

Food - As a bare minimum people will burn off 3,000 to 3,500 calories while paddling. On a strenuous day of paddling into a headwind or portaging, this can go up to 5,000 calories. Because of this meals and snacks are very important. Good snack foods are GORP, dried fruit and chocolate bars. A chocolate bar in the afternoon will give you a boost when energy is waning but make sure you keep it out of the sun.

Flashlight - Take a small, tough, waterproof flashlight, with extra batteries and bulb.

Map and compass - Take a good topographic map of the area and put it in a large Ziploc bag or buy a special case to keep it dry. Take a good compass and be sure you know how to read it.

Whistle - Take a good quality plastic whistle, for signalling purposes. Three blasts of the whistle mean HELP. Keep the whistle attached to your life jacket at all times.

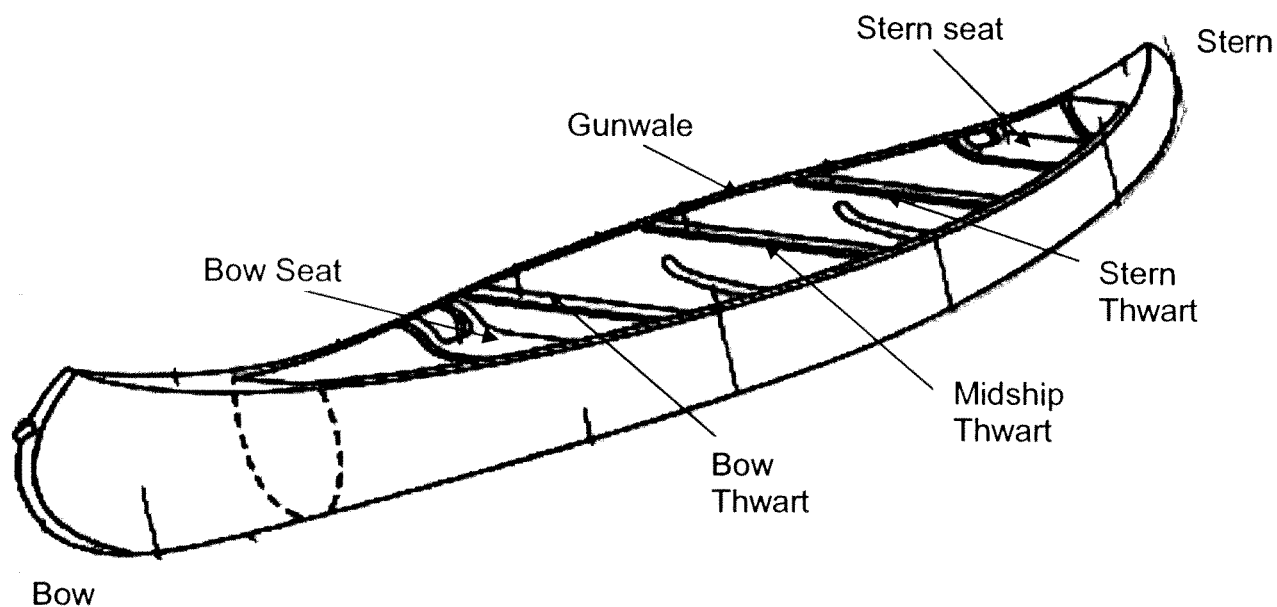
Misc. Extras

There are a number of extra items that can make a day canoeing much more enjoyable.

- Insect repellent
- Sun screen
- Toilet paper
- Duct tape
- Garbage bags (can be used for garbage or to keep things dry)
- Kneeling pad
- Lip balm
- Camera
- Book, cards, notepad & pen (these items will help save a rain or wind bound trip)
- Guide books
- Survival kit (just in case you get stranded)

Parts of the Canoe:

bow, stern, gunwale, bow and stern seats, thwarts, painters and yoke



Bow – The forward (front) end of the canoe

Stern – The rear (back) end of the canoe

Gunwale (pronounced “gunnels”) – The upper rails of the canoe

Bow & Stern Seats – Generally there are two seats in a canoe. They may be made of wood, fibreglass, plastic or aluminium. Wood-framed seats, which are strung with cane or nylon webbing and tractor-type moulded fibreglass seats are the most comfortable. Aluminium seats are least comfortable and get cold in cool weather. For greatest comfort and warmth cover aluminium seats with a waterproof sit upon. You spend long hours sitting in a canoe, so consideration should be given to the seats.

Thwarts – A cross brace that runs from gunwale to gunwale. Thwarts give strength and rigidity to the hull.

Painters – Lines attached to the bow and stern of a canoe

Yoke – A special crossbar equipped with shoulder pads for portaging the canoe

Care of the Canoe

On Land and In Water

Canoes made of wood are very rare and very few are built these days. They do require a lot of maintenance and a new coat of varnish may be required every year if they are used a lot. They are no more likely to leak when hitting rocks, than any other canoe. They should not be stored outdoors, which can be a problem.

Metal canoes can be stored outdoors and will take a lot of scratching on rocks without requiring any repairs. Dents can be pounded out with a rubber hammer. Dents should never be left as they create drag in the water, which makes the canoe hard to paddle and difficult to keep on course. Metal canoes are virtually maintenance-free and they will stand a lot of knocking about before they start to look bad.

A fibreglass canoe is lightweight compared to the wood or metal canoes. Fibreglass will also flex and rebound against blows from rocks that would dent an aluminium canoe. The fibreglass will scratch though when you hit rocks, branches and even sand. Over time repairs to the scratches will become necessary in order to prevent a leak and the scratches can make handling difficult. Apart from scratches, fibreglass takes even less maintenance than aluminium, which in time will corrode. A fibreglass canoe can be stored outdoors.

Positions of Paddlers and Their Paddles in a Canoe

The two basic types of canoeing are solo (one person) and tandem (two people). A solo paddler sits near the middle of the canoe to better control both ends of the canoe. Tandem canoeing lets you work cooperatively, but the challenge is developing an effective communication system and sharing responsibilities. The bow paddler (in the front of the canoe) sets the tempo while the stern paddler (in the back) keeps the boat on track while matching the bow paddler's pace.

Tandem paddlers should always paddle on opposite sides of the canoe.

Position of passengers in a canoe

Extra passengers in a canoe must sit on the bottom, in the centre of the canoe. Be sure and check the trim before setting off.

Strokes

Forward Stroke

The forward stroke provides forward propulsion. This stroke may be used for extended repetitions as in canoe tripping.

Keep the paddle as near vertical as possible when viewed from both the side and from head on. Immerse the paddle blade fully. Lean slightly forward for greater reach and power. Rotate your torso so the shoulder closest to the paddle extends slightly forward. Keep the grip hand near shoulder to chin height and held away from the face. Initiate the stroke with a bent upper arm and nearly extended lower arm. Pull the hip to the paddle with the shaft hand while pushing forward with the grip hand. Rotate the torso through the stroke. When the hip reaches the shaft hand, slice the blade forward out of the water to initiate another stroke. Elevate the leading edge of the blade slightly during recovery so that the blade is almost but not quite parallel to the water. With the forward stroke, try to maintain constant forward speed.

Reverse Stroke

The reverse or backstroke is used to propel the canoe backwards or decrease forward momentum.

Use a slight backward lean and upper body rotation to extend towards the stern. Initiate the catch with bent arms; the upper arm is about shoulder level. Immerse the blade fully keeping the paddle as vertical as possible throughout the propulsion phase. Lean into the stroke. Pull with the abdomen and unwind the torso as the lower hand pushes on the shaft. Continue to apply force as the hip is pulled past the shaft hand until resistance against the paddle begins to diminish. Note that the propulsion phase may be somewhat longer than for the forward stroke. Lift the shaft hand while slightly lowering the grip hand to lift the blade out of the water. Rotate the wrist of the grip hand so that the thumb points away from the torso. Slice the blade out of the water. Elevate the leading edge of the blade slightly so that the blade is almost but not quite parallel to the water. Leaning into the stroke and body rotation are very important during the propulsion phase.

Forward Sweep

The forward sweep turns the canoe away from the canoeist's paddling side.

Place the top hand firmly on the grip in a standard forward stroke position. Slide the lower hand 10 to 15 cm up the shaft to extend the reach, the wider the sweep of the arc, the greater the turning effect. The paddle scribes an arc of 90 degrees or a quarter-circle for tandem canoeists and an arc of 180 degrees or a semi-circle for a solo paddler.

Bow paddler

Rotate the torso and bend slightly forward from the waist. With the paddle nearly horizontal, immerse the blade by the bow of the canoe. Position the grip hand at waist height with the thumb pointing up. As the upper body unwinds, push the grip hand out slightly from the waist and swing the shaft hand in a wide arc until the lower arm extends out from the hip. The propulsion phase ends with the paddle at right angles to the length of the canoe.

Stern paddler

Extend the nearly horizontal paddle at right angles to the length of the canoe. Immerse the blade keeping the grip hand at waist height with the thumb pointing up. Lean back slightly as the upper body rotates. Push out slightly with the grip hand and swing the shaft hand in a wide arc. The propulsion phase ends with the blade almost touching the stern.

Recovery

Slice the paddle diagonally forward to the catch position by lifting the shaft hand and dropping the grip hand. The thumb of the grip hand points forward.

Reverse Sweep

The reverse sweep turns the canoe towards the canoeists paddling side.

This stroke is used primarily by a stern paddler or by a bow paddler when going backwards. Place the top hand firmly on the grip in a standard forward stroke position. Slide the lower hand 10 to 15 cm up the shaft to extend the reach. The paddle scribes an arc of 90 degrees or a quarter-circle for a tandem paddler and an arc of 180 degrees or a semi-circle for a solo paddler. The back face or non-power face of the blade is used.

Stern paddler

Using a slight backward lean, rotate the torso towards the stern. With the paddle nearly horizontal, place the blade by the stern of the canoe. Position the grip hand at waist height with the thumb pointing up. As the upper body unwinds, swing the shaft hand in a wide arc. The propulsion phase ends with the paddle extending out from the hip at right angles to the length of the canoe. Drop the grip hand slightly while raising the shaft hand to lift the paddle out of the water. With the thumb of the grip hand pointing forward, slice the paddle back to the catch position to initiate another stroke.

The stern paddler may end the propulsion phase in a low brace for greater stability during the turn. To affect this, the canoeist must rotate both the grip and shaft hands thereby changing the pitch of the blade.

Draw and Pry

Tandem canoeists can use different combinations of draw and pry strokes to move the canoe sideways. The bow paddler can use a pry to move the canoe away from the paddle while the stern paddler draws the stern toward the paddle. The two strokes used together move each end of the boat in the same direction.

Draw

The purpose of the draw is to move the canoe toward the canoeist's paddling side. Rotate the torso slightly toward the paddling side. Extend the arms so that the paddle shaft is opposite the hip. Keep the grip hand at approximately shoulder height. Immerse the blade fully, keeping it parallel to the keel line. The paddle should be as near vertical as possible. Using the grip hand as a fulcrum, pull the canoe smoothly to the paddle. To begin the underwater recovery, rotate the blade 90 degrees just before the canoe reaches the paddle. The thumb of the grip hand is turned outward on the recovery. Slice the paddle out to the extended arm position and rotate the blade back 90 degrees to initiate another stroke. A long reach out with the grip hand is required and the upper arm should be kept as straight as possible at the elbow to affect this reach.

Pry

The purpose of the pry is to move the canoe away from the canoeist's paddling side. Fully extend the upper arm at shoulder height so that the paddle is just past the vertical position with the blade under the hull and parallel to the keel line. Rest the paddle shaft against the gunwale. The thumb of the shaft hand may be hooked inboard over the gunwale to help stabilize the paddle position. Using the gunwale as a fulcrum, pull the grip hand inboard until it reaches the body's mid-line. A very powerful prying action results if the body is incorporated with the arm motion. To begin the underwater recovery, rotate the blade 90 degrees so that the thumb of the grip hand is turned outward away from the canoe. Slice the paddle back under the hull and rotate the blade 90 degrees to initiate another pry.

J Stroke

The J stroke is used to counteract the tendency of the canoe to veer away from the paddling side of the stern paddler and keep it on a straight course. It needs to be efficient enough to keep the canoe straight without losing forward momentum.

Start with a standard forward stroke grip and stance. Begin with a forward stroke then do the correction phase. As the hip reaches the shaft hand, rotate the wrists so that the thumb of the grip hand points down and do a short, quick pry from the hull using the power face of the paddle. The paddle may be levered off the gunwale to provide extra force as necessary. Carve the J as close to the canoe as possible to maximize both tracking and power.

Slice the blade out of the water to initiate another stroke. Elevate the leading edge of the blade slightly during the recovery so that the blade is almost but not quite parallel to the water. To facilitate straight line paddling, sight along the bow of the canoe to a distant landmark.



Canoe Tripping

Group Size

Whether going on a day trip or on an over night trip the size of the group is important. A minimum of three canoes is best, so if something goes wrong one set of paddlers can remain with those that need assistance while the other canoe can go for outside help. The maximum number for a group is six canoes. More than twelve to a group has a major impact on the environment. Putting up tents, walking around and gathering firewood all have an adverse effect.

Length of Trip

The group is as strong as the weakest paddler and the trip should be planned according to their abilities. Carefully estimate the distance the group is capable of paddling and plan the length of your trip accordingly. For advanced novice or low intermediate paddlers a distance of 10 - 12 km over five hours is more than enough for a day. Strong intermediate paddlers can handle 15 - 18 km per day and experienced paddlers can handle over 20 km per day. This is only a guide, as the weather, water levels and the wind can affect the distance.

The Route

Before planning a canoe trip you need to know the skills of your group and a thorough knowledge of the route you will be paddling. Paddling the route in advance is not always possible but advance preparation is necessary. Find out where the take out points are located, what class of rapids will you encounter, if there are any portages, whether there is a place to set up camp and be sure to purchase topographical maps of the area. Unexpected problems can be eliminated with advance preparation.

Leadership

It is necessary to have a trip leader. Everyone involved should have in-put when planning the trip and can help with the preparation. The leader has two key responsibilities. The first is to see that all advance preparations are made, including planning menus, getting food, checking on the gear, purchasing necessary maps, arranging for canoes, checking the first-aid kit and such other items necessary to ensure a safe and enjoyable experience. The leader can handle all details or assign them to others but she is the one responsible for every advance requirement. The second responsibility is during the trip. It is the leader who has the heavy responsibility of keeping the trip on schedule, dealing with problems and emergencies and making sure that everything goes well. Decisions can be made after consulting others on the trip but the final decision does fall on the trip leader.

Low-Impact Camping

Everyone who travels in the wilderness is a threat to the environment and conservation is an important responsibility of all paddlers. Unlike other wilderness areas, the banks of rivers and lakes offer a relatively durable camping environment. Even though the river or lakeside environment is typically more resilient, great pains must be taken not to impact it more than necessary. Because of a river's durable nature, once damaged, it becomes much harder to repair.

Campsites

When choosing a campsite the first priority is to inflict as little damage as possible to the terrain. Try not to disrupt the natural balance of the wilderness community around you. It is better to use campsites that are already established and have significant impact in one or two areas than to have significant impact on multiple locations. While it may go against the grain of environmental consciousness to set up camp in an area that is obviously highly impacted with visible trails, tent sites, camp fire rings and kitchen area, consider this the best alternative to subjecting another site to your impact.

Campfires

Some of your fondest memories of canoe trips are sitting around the campfire. Unless you need a campfire for warmth, try to limit the use of campfires in the wilderness. If you need a fire, use existing fire rings or use a fire pan; steel baking pans and garbage can lids make excellent fire pans. Burn a fire down to ash and carry out all charred remains from the fire. Take a can to carry out ashes. Each night pour the previous fire's ashes on the pan and build the fire over the ashes. By doing this you will continue to reduce the collective volume of the ash and charcoal that must be carried out. Dumping the ashes and charcoal in the river, lake, or along the shoreline is not a suitable practice. Increasingly, river and lakeshores are being stripped of available wood even driftwood. In fact, many popular river campsites are already bare. Because of this it is recommended that you bring your own wood supply and use stoves for cooking, not the campfire.

Human Waste

Urinating directly in waterways is not acceptable under any circumstances, especially with the reduced volume of our lakes and rivers in the past few years. Urinate as far away from the camp and water source as possible. You only need to dig a cat hole to defecate. To dig a cat hole, find a spot at least one hundred paces away from the campsite and water. All toilet paper should be carried out.

On any canoe trip, each participant should have a Ziploc bag with a paper bag inside. This bag can be used to carry out all toilet paper and sanitary items.

Bathing

Although it may be tempting, resist any urge to bathe directly in the river. All personal cleansing should be performed at least two hundred feet away from the nearest water source. Take an initial dip to wet yourself prior to soaping and then rinse two hundred feet away from the water's edge with a bucket.

Waste Water

Waste-water from cooking and cleaning should be strained to remove solid particles. The solid items should be carried out in a plastic bag and the wastewater scattered around the area away from the campsite.

Trash

All trash must be carried out, including left over food. Left over food not picked up attracts insects and rodents in droves.

Bank Erosion

Research has shown that dragging boats up and down riverbanks, as well as walking from camp to the river to obtain water is a leading source of bank erosion. It is not possible to completely eliminate riverbank impacts, so river users must take steps to minimize the impact. Whenever possible, choose beaches or other areas which have easy access to the water, without having to negotiate steep and easily eroded banks.

Waterproofing

Even on short and pleasant trips you should put everything you want to keep dry into some type of waterproof bag. For a pleasant couple hour trip, heavy-duty plastic garbage bags will work. When the trip is longer, the likelihood of your getting gear wet increases and the waterproof bags must be sturdier than a plastic bag. Rubberized bags especially made for canoeing are available at sporting goods stores. Nylon stuff bags can also be used, by inserting a tough plastic bag inside the nylon bag to make it waterproof. A small waterproof container (ice cream pail) can be used to store small extras, hand lotion, sunscreen, compass, sunglasses, camera and GORP.

Trim the Canoe

When packing the canoe adjust the placement of gear so that the bow sets slightly higher in a tail wind and slightly lower in a headwind. The bow and stern should never ride high out of the water. This is an invitation for the wind to push and shove the canoe around. On a river try and keep the canoe trimmed so that it rides reasonably level. Currents shift suddenly and the wind changes direction at each curve, so a level canoe is least vulnerable. Gear should be stowed so that as little as possible is above the gunwale to catch the wind.

Weather Signs and Forecasts

Wind is the most immediate predictor of weather, since it always accompanies changes in atmospheric conditions. A sudden rising of the wind or a change in the direction of the wind can be an indicator of a sudden change in the weather. Generally wind from the east brings storms and wind from the north brings cold. Of course it is not always reliable with the constant change in direction at each curve.

Watch the sky, clear skies or high clouds usually indicate fair weather. The clouds that hang lower in the sky are the ones that will bring bad weather. Big fluffy clouds can bring storms if they become bunched up or are dark. Fluffed up clouds can change quickly, which doesn't always mean anything but things could get nasty.

Things can get nasty very quickly so keep an eye on the weather.

Weather Lore

These weather lore bits of wisdom come from observations of atmospheric conditions and can be remarkably reliable in helping you to predict the weather.

- When there is a ring around the moon, bad weather is on the way
- Red sky at night, sailors delight. Red sky in the morning, sailors take warning.
- When there is dew on the grass, rain will never come to pass
- When grass is dry at morning light, look for rain before the night
- Birds flying low or unusual rodent activity during the day means bad weather is on the way
- When the smoke of your campfire swirls or is beaten down, rain is on the way
- When someone says it "smells" like rain, it's because the scent of vegetation is more distinctive before a rain

Time to Stay Ashore

No matter what your skill or experience, prudence sometime dictates – get off the water, it's too rough for your safety. As a general rule it is easier to make your way to shore by running with the wind than paddling against it. When the winds are rough and you are still ashore, stay ashore.

Always get off the water during a lightening storm. If you get caught on a lake in a thunderstorm, assume a crouching position towards the middle of the boat. Try to minimize your contact with wet objects.

Always have a way to shelter your group in a sudden storm. A six-man tent can shelter ten people in a storm, providing shelter and warmth. Just be sure that the tents occupants agree to host the group when their tent is chosen. A large tarp will also work as a shelter in a storm, providing rain protection and a windbreak. Having a stove and food that are easy to access will also help keep up the spirits of your group, during a storm. A hot drink and a snack will help when everyone is cold and wet.

Having to stop because of a storm may cause you to reach your final take out a day late, but it is better to be safe, than sorry.

Float Plan

North Saskatchewan River – Fort Saskatchewan to Waskatenau Bridge – 52 km trip

Classification of River: Overall river - grade 1, Rapids - class 1

Skill of paddlers: novice with basic strokes and river skills

Friday

Fort Saskatchewan – Camp at Turner Park Campground

Saturday

Canoe 25 km, camp – riverbank

9:00 a.m. Breakfast

10:30 a.m. Break camp

12:00 a.m. Lunch

4:00 p.m. Set up camp

6:00 p.m. Supper

Sunday

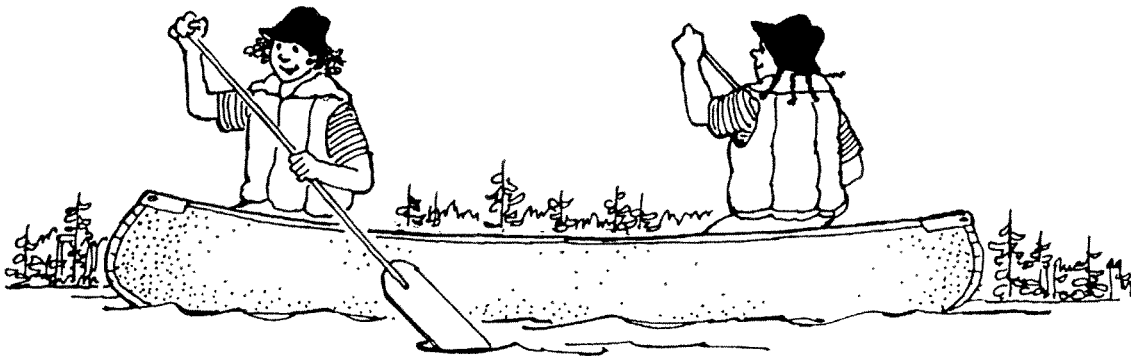
Canoe 26 km

9:00 a.m. Breakfast

10:30 a.m. Break camp

12:00 a.m. Lunch

4:00 p.m. Finish canoe trip – Waskatenau Bridge # 831



Food

Because of the carrying capacity of a canoe you can bring bulkier foods. So you can indulge yourself with bread, fresh fruit, meat and deserts, on short trips. The longer canoe trips do require dehydrated food and one pot meals are the easiest to pack and prepare. All food should be stored in waterproof containers. A long day of paddling will burn through the calories, so snacks that pack a punch are best: dried fruit, nuts, chocolate, granola bars and GORP.

Menu

Friday

Snack: Crackers with cheese whiz, jam, honey, peanut butter & lemon pudding

Saturday

Breakfast: Dehydrated hash browns, eggs, cocktail sausages and toast

Snack: Granola bars, trail mix

Lunch: Buns, meat, cheese, fruit

Supper: Japanese spaghetti, no bake Eskimo cookies, popcorn

Sunday

Breakfast: Breakfast Burritos and cocktail sausage

Snack: GORP, fruit

Lunch: Soup, crackers with cheese, honey, jam, peanut butter & cookies

Extra Meals:

Three-Cheese Pasta and Tuna

Fried Macaroni

Recipes

Japanese Spaghetti

1 pkg. dried hamburger
1 pkg. dried spaghetti sauce
¼ cup dried tomato paste
Spaghetti

At camp: To 3 cups water add the hamburger, simmer for 30 min. Add the broken spaghetti and tomato leathers. Cook until spaghetti is tender. Add more water if needed. Can also add mushroom pieces and grated cheese.

Cinnamon Burritos

1 giant tortilla per person
brown sugar
cinnamon
dehydrated apples
margarine
smoked pork sausage

Start the fruit and sausages first, add the apples to water and brown sugar and cinnamon to taste. Bring the fruit to a boil, give the fruit a stir, remove the pot from the heat and place on an insulated pad. Add a cozy cover to the pot and allow the fruit to stew for 10 min. The sausages can be boiled or fried. Cover the tortilla with margarine, brown sugar and cinnamon. Roll to form burritos. Place burritos folded seam down on a warm pan, lightly oiled. Cover and fry at low heat till lightly brown, turn and add a dash of water to steam. Cook for thirty seconds and serve. Serve covered with apples and a smoked sausage.

No-Bake Eskimo Cookies

Makes about 16 cookies
1 cup oatmeal
6 tbsp margarine
6 tbsp brown sugar
3 tbsp cocoa
½ tsp vanilla
½ tbsp water

Mix all ingredients together, form into walnut sized balls. Eat immediately or let sit in a cool place. Variation: roll in a combination of 1 tbsp powdered milk and 1 tbsp brown sugar or coconut.

Fried Macaroni

Handful of dried vegetables

1 lb macaroni or any pasta

4 to 6 cups water

spices to taste – garlic, salt, pepper, soy sauce, oregano, basil

margarine

cheese, cubed

pesto

Add vegetables to cold water and bring to a boil. Add pasta, bring back to a boil. Remove from heat and cover. In another pan, sauté spices in oil or margarine and add cooked drained pasta. Stir and fry for 5 to 10 min. Add cubed cheese and fry until melted. Top individual dishes with parmesan cheese, salsa or pesto. You can also add tuna, chicken, pepperoni, bacon or sausage for flavour and energy.

Serves 4

Lemon Pudding

Combine

1 cup powdered milk

1 pkg. instant lemon pudding

¼ cup coconut

Add dry ingredients to 2 cups cold water in a wide mouthed container, with a tight lid. Shake vigorously for 40 sec. Let stand 10 – 15 min to thicken. It can be mixed with a wire whip in a bowl or cooking pot.

Serves 3

Pasta

3 cheese pasta mix (Lipton Sidekicks)

½ cup powdered milk

2 tbsp margarine

2 cups water

tuna pieces or chicken

Bring water, milk and margarine to a boil. Stir in the pasta mix; continue cooking over medium heat, stirring often till noodles are cooked. Add tuna or chicken, remove from heat. Cover and let stand 5 min.

Make 2 cups

Canoe Checklist

Canoe water bags are best for canoe trips but if you do not have them, duffel bags also work. Place a garbage bag inside the duffel bag and items can also be enclosed in Ziploc bags. Be sure and have everything you bring in a waterproof bag or container.

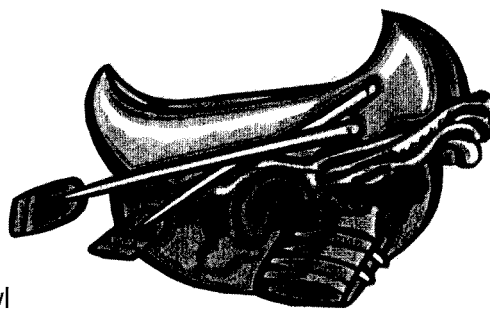
- 2 t-shirts
- 1 pair shorts
- 2 pair pants, not jeans
- 3 pair socks
- Underclothes
- Shoes
 - 1 pair for around camp
 - 1 pair for canoeing (water shoes or old runners)
- Pair rubber boots
- Pyjamas & bed socks
- Warm jacket and fleece or wool sweater
- Toque and mitts
- Personal basics & toiletries
- Bed roll - it may be cold at night, bring a warm sleeping bag and blanket or fleece liner, mattress and pillow
- Flashlight, knife, tarp & nylon cord
- Dishes
- Water bottle
- Sit-upon (waterproofed)
- Life Jacket
- Sunglasses
- Lip balm, sunscreen & insect repellent
- Camera & film
- Rain gear
- Sun hat

Miscellaneous

- 1 roll of toilet paper (in a Ziploc bag)
- Garbage bags for wet clothes
- Canoe bailer/sponge
- Snacks for weekend - fruit snacks, granola bars, trail mix etc
- First Aid kit
- Medication – must be bagged with name on it in original containers, dosages plainly marked

Group Gear

3 stoves with fuel
4 canoes and 12 paddles
4 tarps
3 3-man tents
Matches
Hatchet
Pots and pans, frying pan
Utensils, cutting board with knife, measuring cup and bowl
Garbage bags
Tea towels and J-clothes (pre soaped in dish detergent)
First Aid Kit
Lantern with propane
Rope
Towel, toilet paper and hand sanitizer in Ziploc bag
Throw bags – 4
GPS, extra batteries
Water jugs - 2



Games

To help with the teaching of canoeing skills, it is always helpful to use a variety of games. Both the skill level of the participants and the safety of the area to be used should be considered when choosing a game. Try using games that promote the skills already learned and use the non-competitive type (where there is no winner or loser), as much as possible. All games can be modified to suit the situation.

Barrel Bonk

Place 3 or more ½ filled barrels/markers in the area. Each team travels around the area touching the barrels. Points are awarded for: 1 pt. - touching the bow, 2 pts. – touching the stern, 3 pts. - touching another canoe with both the bow and stern. The only rules are that you can't touch the same barrel twice in a row, start and stop on a whistle and keep track of your points with a loud count each time you score.

Blind Canoe Race

Three people to a canoe, with both the bow and stern paddlers blindfolded. Rules: all canoes line up at a starting line. On "GO" the canoes race around a course set up with buoys. The passenger directs the canoe along the course. *(So that no one gets hurt; be sure to play this game in shallow water free of obstacles and in controlled conditions.)*

Flower Strokes

Canoes raft up with all of the bow paddlers placing their paddles inside their canoes and hanging on to all of the bows snugly. The stern paddlers now have a space to practice draws, J-strokes or priers. They must all paddle on the same side and as they paddle the canoes will rotate and spin the "flower". This can also be done with the stern paddlers holding the sterns and the bow paddlers practicing. This game is good for stroke practice and correction.

Foam Float Fun Race

Foam chips with numbers on them are spread out all over the race area. Each canoe is given a certain number to retrieve and at a signal they paddle around and collect their foam chips. If the foam doesn't have their number on it, they must leave it for the other canoes. The first canoe to find all of their chips wins. Modify the game by having letters with the numbers and they must form a word once they have found all of their chips.

Push Me – Pull Me

Both paddlers face each other. They race in a straight line from A to B, then back to A without turning their canoe around. Canoes can also be raced around a course made with buoys. This game increases awareness of how strokes affect the movement of the canoe.

Shapes

Organize the canoes into groups of 4 or more canoes and have them spread out with their group. The canoes form the shapes called out by the leader. Examples: square, triangle, circle, X, straight line, etc. Rule: all bows and sterns must be touching. This game is particularly good for practicing draws, pries and sculling. You can also have the canoes expand the shapes in and out from their original shape once it has been formed.

Simon Says

All canoes are in their own space. On a signal, they must stop their canoe and perform the required skill. Example: Inside circle, Outside circle, Figure 8, Back-up, Forward straight line, Sideways Right or Left, etc.

Water Polo

Two teams with a ball and a buoy at each end of the "field". The team passes the ball among themselves and hits the other teams buoy to score a point. One canoe is not allowed to keep the ball longer than a certain count. The game can be modified with rules from soccer, hockey or baseball.

Tag Variations – All sorts of tag games can be played using canoes:

- a. **British Bulldog** – "IT" is at the boundary line and all the other canoes must pass over the boundary line without being tagged. If tagged, they become another "IT" canoe and help catch the others.
- b. **Frozen Tag** – once a canoe is tagged, it is frozen and must be touched by a "free" canoe in order to move again.
- c. **No Paddle Tag** – only "IT" can use paddles, all others must use their hands.
- d. **Sponge Tag** - Use 3 or more sponge balls, critters or Frisbees in a designated playing area. The canoes in possession of the balls are "IT" and they attempt to throw the ball into another canoe. If they miss, they must retrieve the ball out of the water and they are still "IT" until the ball ends up in another canoe. This is great fun on a hot day with soaker balls or critters.

Races – Races are great for a water regatta at the end of your lessons and can be modified for all level of participants.

- a. **All Overboard Race** – start in the canoe at line A, paddle to line B; jump out and swim around the canoe, get back in into a new position and race back to the starting line.
- b. **Bus Stop** – in teams of 4 or more. One person starts in the canoe and races around a course picking up their team-mates (all have a paddle) and they race back to the starting line once everyone is in. The team-mates are in the water at various “bus stops” or on the shore.
- c. **Canoe Filling** – each canoe has 1 paddle and a bucket that is attached to a rope. They must fill all of the other canoes before their canoe tips. The paddlers cannot help fill or empty their own canoe.
- d. **Clothing Race** – each person is wearing a large set of wet PJs or sweats. Paddle from line A to B, trade clothes with their partner and paddle back to line A.
- e. **Pie Pan Race** – with 3 to 5 paddlers per canoe use tin pie plates as paddles and race from line A to B. You can also use large spoons, hands, poles, brooms, etc.
- f. **Reverse Canoe Race** – paddle backwards from line A to B.
- g. **Standing Race** – one person stands on the gunwales or on the bottom of the canoe and gunwale bobs or paddles from line A to B.
- h. **Swap Race** – paddle from line A to line B, change positions in the canoe and paddle back to line A.
- i. **Tug of War** – with 3 to 5 paddlers, canoes are tied stern to stern and they must pull the other canoe past a centre line (or a person standing in the water).
- j. **Warrior Canoe** – 4 to 5 paddlers per canoe and they race from line A to B.

Credits and Acknowledgements

Canoe stroke descriptions were taken, with copyright permission, from the CRCA (Canadian Recreational Canoe Association) Manual.

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