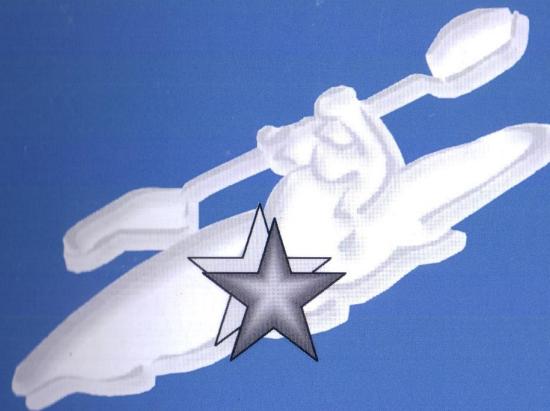


People's Association

Water-Venture



2 Star Award

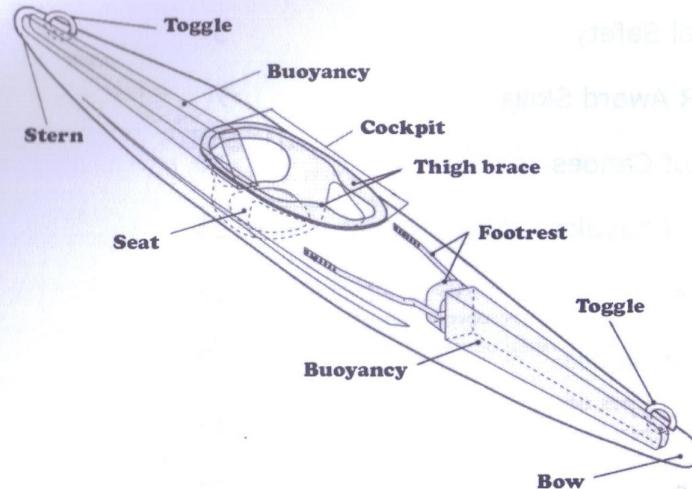
Handbook

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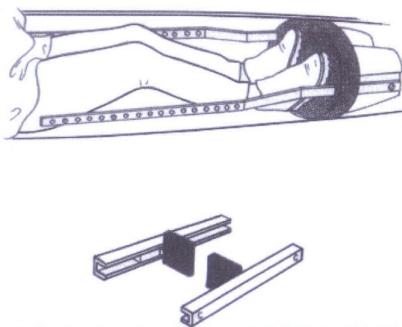
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PARTS OF KAYAK



Types of foot rest



PARTS OF KAYAK

Parts Identification/Purpose

- 1. Bow** - front of the kayak, identified by the seat and design of the cockpit.
- 2. Stern** - back of the kayak, identified by the seat and design of the cockpit.
- 3. Portside** - on your left side when seated properly.
- 4. Starboard** - on your right side when seated properly.
- 5. Deck** - top part of the kayak, usually slopes slightly in a moderate inverted V or rounded to shed water.
- 6. Deck lines** - ropes that run around the edge of the deck, used for assisting rescue, towing and mooring.
- 7. Cockpit** - opening on the deck.
- 8. Cockpit coaming** - narrow lip around the edge of the cockpit, holds the spray cover in place and prevents water from entering the kayak.
- 9. Toggle** - at both ends of the kayak, for towing purposes.
- 10. Cleat** - on the deck, to hold the deck lines in position.
- 11. Seat** - inside the cockpit for seating.
- 12. Footrest** - a piece of aluminium tubing or plastic to support the feet.

13. Hull

- bottom half of the kayak.
- types of hull: Round, V, Flat

14. Buoyancy

- polystyrene foam packed securely and evenly into both ends.
- ensure kayak stays afloat even when filled up with water.

15. Gunwale

- edge or side of the kayak.

GENERAL SAFETY

1. Ability to swim at least 50 m with a buoyancy vest. The ability to swim vast distance is not essential, but basic confidence in and under water without panic is fundamental to safe canoeing.
2. Be properly attired. Always wear a buoyancy vest when out at sea. Proper footwear should be worn to protect the feet.
3. Check equipment for sea worthiness (i.e. leaks, damages) before going out to sea. All defects are to be reported to the staff and the defective equipment replaced before setting out.
4. Members are advised to stay within the demarcated area. The location of the demarcated area is displayed on the notice board of the Outlet.
5. Prior approval must be obtained from the staff before proceeding beyond the demarcated area with the destination and expected time of return made known to the staff.
6. Always launch and beach your craft with care and consideration to other beach users. Keep clear of the motorised users next to the slip-way when launching or beaching.
7. Paddlers are advised to paddle in the company of others (recommended 3 kayaks.) With 3 persons available, one can always summon for help while another deals with the casualty.
8. Paddlers shall not change places while afloat without supervision.
9. The craft must not carry more people than it is designed.

10. Ensure deck lines are taut, loose ropes may be a hindrance in an emergency.
11. Check weather forecast, tide and currents before setting out. Head for the nearest shore immediately on any sign of an impeding storm.
12. Be familiar with your capsize drill.
13. Avoid paddling in sea traffic lanes, ship or barge anchorage.
14. In the event of a capsize, stay with the kayak - it is easier to spot on the water.
15. Beware of strong winds and currents. Always plan your journey in a direction that when returning to base the tidal stream will assist you.
16. Know your limitations and do not allow fatigue to put your safety at risk.
17. Always exercise common sense and be responsible for your own safety.

2 STAR PERSONAL SKILL AWARD

An improvement award that covers basic flat-water skills. The emphasis is on creating the desired movement of the boat through developing an understanding of cause and effect rather than concentrating on rigidly defined strokes.

Pre-requisites

1 STAR personal skill award

Venue

Sheltered water, (not a swimming pool)

Assessor

Level 2 Coach or higher

1. THEORY

- 1.1 Personal Equipment
- 1.2 Simple knowledge of tide & current
 - Spring tide
 - Neap tide
- 1.3 Weather hazards
- 1.4 Environmental hazards

2. PRACTICAL

2.1 Lifting and carrying. Demonstrate good lifting and carrying principles using legs rather than the back. Assistance is recommended.

2.2 Launching the kayak. The boat must be afloat. Balance must be maintained. The paddle must remain within reach or can be used to assist in embarking.

2.3 Efficient forward paddling. Posture upright with continuous natural rhythmic forward paddling with trunk rotation in evidence. A reasonable degree of steering accuracy must be achieved. (50 metres at a good cruising speed.)

2.4 Reverse paddling and stopping. Demonstrate controlled and reasonably accurate reverse paddling over a distance of 25m defined by the assessor. Looking over one shoulder and unwinding the trunk to produce power must be in evidence.

2.5 Moving sideways (J Stroke & classic draw.) Moving the boat sideways while retaining directional stability. Blade to remain submerged throughout the stroke. Body rotation must be evident towards the paddling side.

2.6 Support and recovery.

(a) **Low recovery.** Show an efficient low recovery stroke with the boat off balance. A good firm push with associated hip rotation should be evident.

(b) **High recovery.** The boat must be off balance with water up to the paddler's waist.

2.7 Stern rudder. Demonstrate stern ruddering, including steering for both turning and running straight.

2.8 Low brace turn. Demonstrate low brace turns with evidence of edge control.

2.9 Capsize, swim ashore and emptying. Planned capsizing with spray deck fully covered, followed by swimming ashore with retention of the kayak and paddle. Empty the boat on the shore.

2.10 Deep water rescue. Take charge of a rafted rescue in deep water. Demonstrate in a calm and efficient manner the directed tasks of a patient for a deep water rescue.

2.11 Sculling draw. Paddle shaft fairly upright; drive face towards the kayak and deep in the water. Kayak edged slightly to avoid water going onto the deck.

2.12 Eskimo bow rescue. Demonstrate the directed task as a patient when rescued by the coach.

2.13 Kayak to swimmer rescue. Demonstrate a kayak to swimmer rescue (bow carry method.)

2.14 Bow Rudder. Demonstrate the beginning of a bow rudder (blade placed between bow and cockpit.)

2.15 Journey

One journey of at least 6 km

TYPES OF CANOE

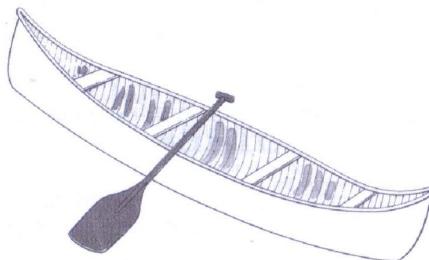
Definition

A canoe is any narrow craft pointed at both ends, either open deck or close deck; in which the crew propels itself forward with hand held paddles, while facing in a forward direction.

Canoes fall into two categories - the Kayak and the Canadian Canoe.

Canadian Canoes

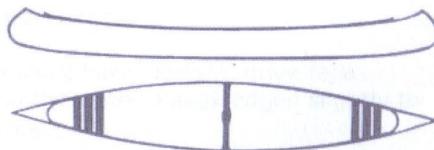
Canadian Canoes are open decked canoes paddled with a single blade paddle in a kneeling or sitting position. It is usually handled by 2 persons on opposite sides at the bow and stern. It can also be handled by one person operating from a central position.



Due to the development of the sport, the design of the traditional Canadian Canoe has been fitted with decked and small cockpit. The shape has been changed to the needs of the white water canoeists and altered by the racing canoeists to produce more speed.

Touring Canadian Canoes

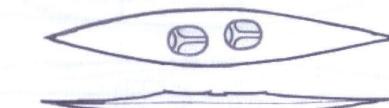
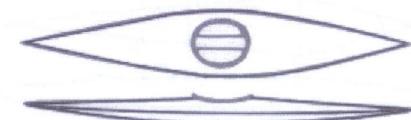
These boats are generally used as doubles, but they may take anything between one and four people according to the needs of the moment. It has very short decks at bow and stern, a



seat at the stern and a couple of thwarts (seats) well spaced apart. It is an excellent load carrier and can go along the narrowest streams with their single blade paddles. It is an ideal craft for camping trips and family picnics.

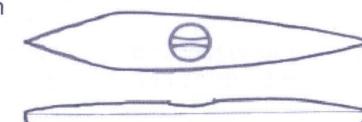
Slalom Canadian Canoes

The slalom canoe is designed for manoeuvring on white water. The boat has a very low profile allowing for faster turning and facilitating dipping techniques. Kneeling on both knees takes some getting used and successful manoeuvring in rapids with the single blade paddle calls for great skills.



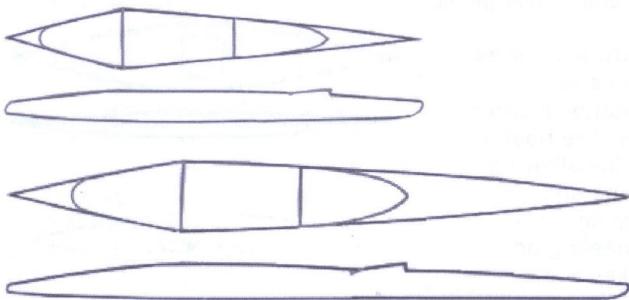
Wildwater Canadian Canoes

The wildwater racing canoe like the slalom canoe comes in both single and double forms. Designed for speed in rough water, they are more buoyant and less stable than a slalom boat.



Racing Canadian Canoes

Sprint canoes are built for one, two and seven people.

**KAYAK**

The kayaks have their own origins from the Eskimo kayak was built as a narrow craft with a covered deck, using double blade paddle.

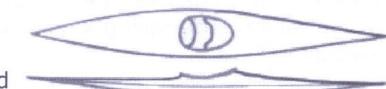
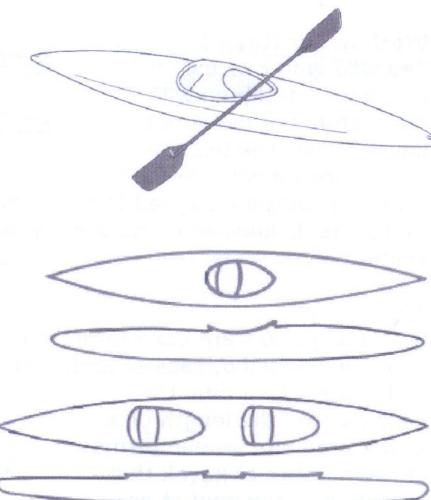
Touring Kayak

The touring kayak is designed for trips of either a few hours or several days down rivers across lakes or estuaries. The touring kayak is easy to paddle in a straight course and is comfortable to sit in for several hours. It is stable and fairly buoyant with ample space to store camping equipment. Large cockpits are often favoured for ease of getting in and out. The kayaks come in either single or double.

The Eskimo or sea kayak comes under the category of touring kayak. It has a very distinctive high bow and stern. It is also equipped with a foot pump and rudder.

Slalom Kayak

The slalom kayak is a low profile boat designed for fast turning and dipping. It is a comparatively stable crafts and designed for easy handling in rough water conditions. The slalom kayak comes in single seater only.



Wild-water Kayak

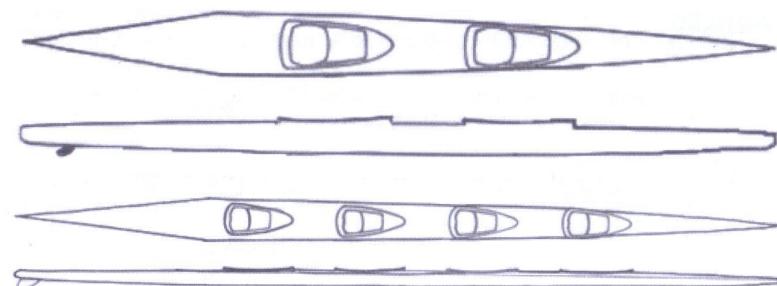
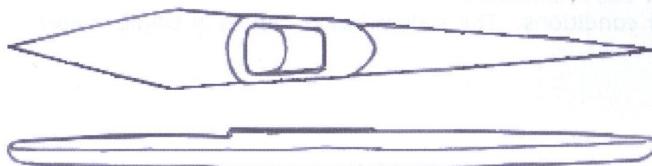
The wild-water racing kayak was designed with the features of the sprint kayak's hull. The boat is more buoyant with the seat and cockpit designed to allow the paddlers to brace and performed Eskimo roll. The white water kayak comes in single seater only.

**Bat**

Swimming pools are used for introducing people to canoeing, practise for rolling, capsise drill, rescues and other safety and skill techniques. Pool time is valuable and the length of a kayak prohibits time in terms of the number of kayak that can get into the pool at one time. This led to the development of a short rounded boat commonly called a Bat (Bath Advanced Trainer). This modified Bat, which is a little faster, has now been designed for a new sport, known as canoe polo.

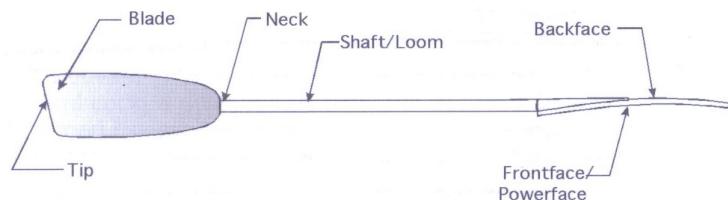
**Racing kayak**

The racing kayak was adapted from the touring kayak. It is longer and narrower and therefore faster. Used for both sprint and marathon racing. The over stern rudder is generally used for marathon racing. The racing kayak comes in singles, doubles and four-seater.



The racing kayak was adapted from the touring kayak. It is longer and narrower and therefore faster. Used for both sprint and marathon racing. The over stern rudder is generally used for marathon racing. The racing kayak comes in singles, doubles and four-seater.

PADDLES



The paddles consist of 2 main parts, the blades and the shaft. Each blade is set into the shaft at approximately right angles to the other. This is called feathering. The main purpose is to reduce wind resistance to the upper blade when the lower blade is pulled through the water.

Feathered paddles are either left-handed or right-handed, according to the way the curved blades have been offset against each other. The general rule is that right-handed people prefer right-handed paddles and vice-versa.

To differentiate left or right-handed paddles - place the paddle vertically with the drive face of the lower blade towards your feet. The other drive face of the blade above should be facing towards your gripping hand.

The paddle can be constructed with any combination of shaft and blade material:

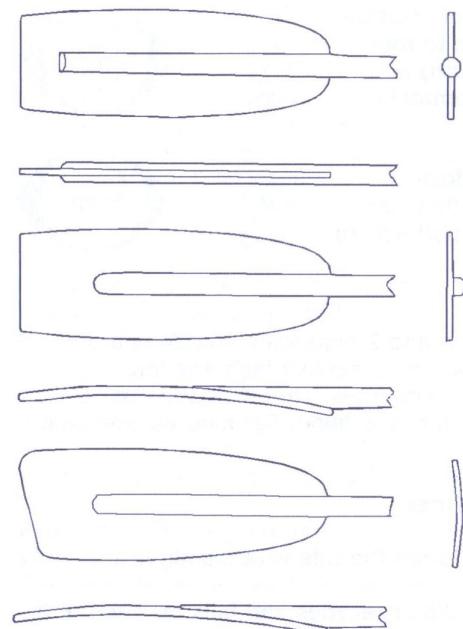
SHAFT	BLADE
1. Aluminum	Wood
2. Wood	Fibreglass
3. Fibreglass	ABS Plastic
4. Alloy	Cored glassfibre (sandwich construction)
5. Carbon	Carbon
6. Kelvar	Kelvar
7. Graphite	Graphite

Types of blades

The paddles are your means of power and it comes in different shapes and sizes.

There are three types of blades:

1. Flat blade
2. Curved blade
3. Asymmetric blade



TIDES

Tides are mainly caused by the gravitational pull of the Moon that causes a "piling up" of water (high tide) in the areas nearest to and furthest from the Moon. There is a "thinning out" of water (low tide) over the areas in between. As the Earth rotates upon its axis, the region it presents to the Moon changes. The Earth takes 24 hours to complete one rotation, but the Moon itself is moving relative to the Earth and point X (see diagram) is opposite to the Moon approximately every 25 hour.

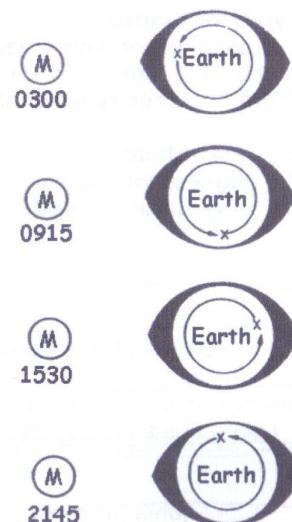
The Sun's gravitational pull, local conditions, meteorological influences and other factors cause tide patterns to vary all over the globe.

Tidal cycle

There are approximately 2 low and 2 high tides in a 24 hours cycle. The time interval between successive high and low is approximately 12 hours and 26 minutes. Therefore the time of high water on each succeeding day is about 52 minutes later than the previous day.

Terms Used For Reading Tides

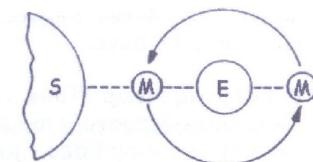
- | | |
|------------|---|
| High water | - When the tide is at it's highest. |
| Ebbing | - Water recedes and falls for about 6 hr. |
| Low Water | - Lowest point of tide. |

**Flooding**

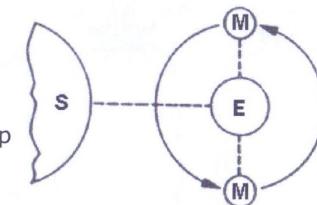
- The flow of water inward (rising).
- At high and low water the tidal level remains for a variable time (slack water).

Spring Tides

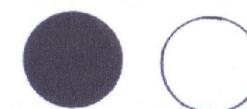
As the Moon travels on its monthly orbit round the Earth, it twice comes into line with Earth and Sun and the "pull" of the Sun and Moon is added to each other. The "piling up" and "thinning out" processes are increased. High tides reach a maximum. Low tides reach a minimum. Such tides are called Spring Tides. During spring tides the flow of the tidal stream is very swift.

**Neap Tides**

At other times, the gravitational pull of the Moon acts at right angles to the Sun. The "piling up" and "thinning out" processes are decreased. High tides reach a minimum. Low tides reach a maximum. Such tides are called Neap Tides. During neap tides the flow of the tidal stream is very gradual.

**Predicting Spring Tides**

When the Moon is between Earth and Sun and therefore directly in line with Earth and Sun, no Moon is seen.
When the Moon is on the far side of



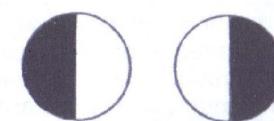
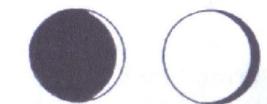
Spring tides almost due

the Earth directly in line with Earth and Sun, there is full Moon. In each case the Spring tides are almost due. About one and a half days after "no moon" featuring a new moon the spring tides will have arrived.

About one and half days after full moon we know that spring tides have arrived again. The interval between spring tides is roughly 15 days.

Predicting Neap Tides

Neap tides occur roughly seven and half days after spring tides - just after the Moon's first quarter and just after its third quarter. The tide range at "springs" will be at its greatest - maximum "high water" and minimum "low waters"- while at "neap" it is least.



Neap tides almost due

PACKING

Packing for an extended journey has a few simple rules and these are designed for your own safety and comfort.

Simple rules

Rule 1.

Put everything that you must keep dry in waterproof bags

Rule 2.

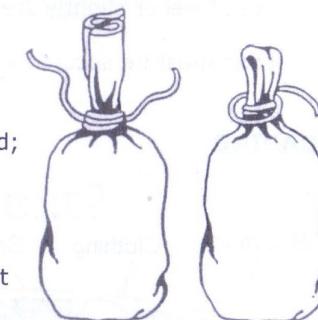
First in, last out. Put everything into your canoe in the reverse order so that whichever items you need to used first will be on the outside.

Rule 3.

Get everything out of the way.

Waterproof Bags

1. Two heavy duty polythene bags will provide the necessary waterproofing.
2. Inner bag should be just half filled; neck gathered up tied, twist and rolled down and tied again.
3. Inner bag is then dropped into outer bag upside down and repeat step 2.
4. Clothing, tent, cooking utensils and etc. should be in different bags.



First In, Last Out

1. Whichever items need to use first on reaching the campsite should be the last item to be pack into the kayak. eg.

Tents - pitching of tents upon reaching the campsite, so that all personal items can be put inside the tent.

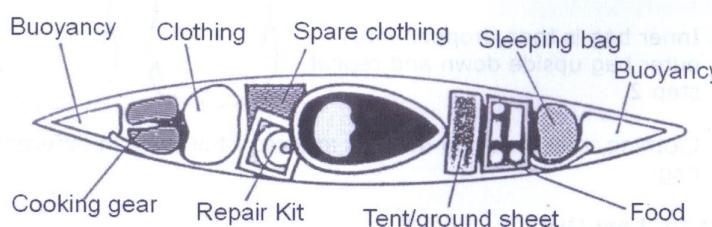
Get everything out of the way

1. Leave enough room for your legs.
2. Ensure no loose gear or dangling lines in the cockpit that may trap you during a capsize.

Loading of equipment into the kayak

1. Clothing, tent, repair kit and first aid kits are recommended to store in the bow.
2. Amount of equipment carried will increase the weight and thus affect the handling of the craft.
3. Avoid the tendency to over load the bow - the kayak should float level or slightly stern down.
4. Load must be secured to the kayak.

LOADING



GUIDE TO THE USE OF THE LOGBOOK

The logbook is designed for you to record evidence of expeditions, experience and coaching activities, in preparation for training or assessment within the kayaking scheme. It will help you to record the necessary journey requirement for your higher awards.

A properly maintained and up-to-date logbook is a requirement for 3 Star Award and higher or Coaching Award.

For the entries or records to be valid ensure that it is certify by the assessors/coaches or organisation with the organisation stamp.

THE LOGBOOK PROVIDES A DOCUMENTARY PROOF OF YOUR ACTIVITIES IN THE SPORT

What's next?

**Your next step is
Achieving the 3 STAR
Award**



KAYAKING CHART

