

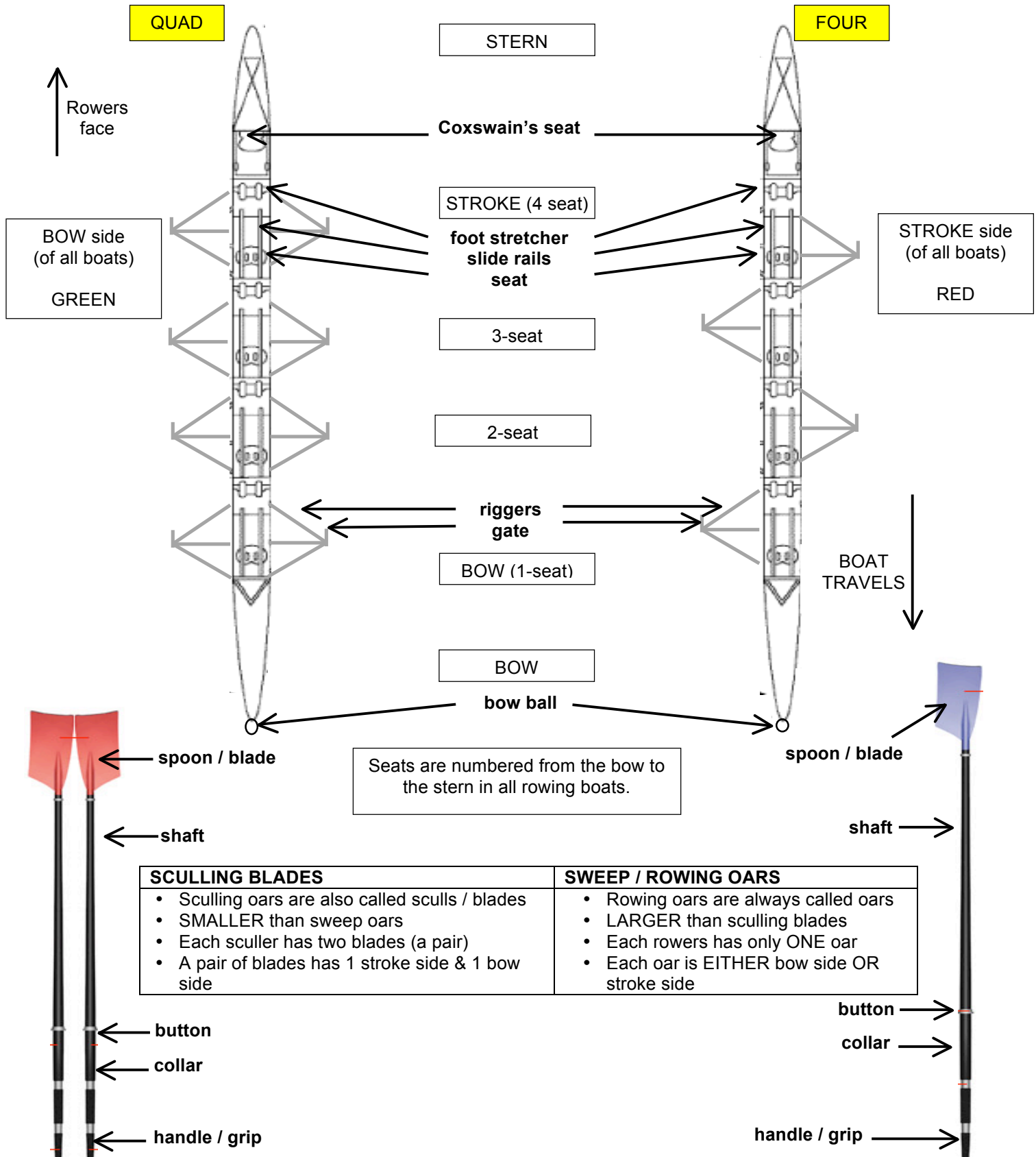
ROWING EQUIPMENT – BOATS AND OARS

SCULLING BOATS (see diagram below)

- Boats have two riggers for each rower
- Each rower has TWO oars (or sculls), one on each side
- Quads – four rowers, sometimes coxed (4x)
- Doubles – two rowers (2x)
- Singles – one rower (1x)

SWEEP OAR BOATS (see diagram below)

- Boats have one rigger for each rower
- Each rower has ONE oar - bow side OR stroke side
- Eights – eight rowers, always coxed (8+)
- Fours – four rowers, coxed (4+) or coxless (4-)
- Pairs – two rowers, usually coxless (2-)



BOAT HANDLING

It is really important to **BE CAREFUL** when moving boats – on and off the water.
Rowing boats are easy to damage and expensive and timely to repair.
It is the responsibility of everyone to look after our rowing fleet!

BASIC TIPS

- **Before you get the boat out, get out your trestles and oars. Minimise your time on the pontoon.**
- Your LTR coach is responsible for the coordinated movements of the boat. **Listen carefully to their instructions.**
- Ensure you have enough people to move the boat – at least the number of seats in the boat, more for novices.
- Position yourselves evenly along both sides of the boat, towards the ends of the boat. This ensures the weight of the boat is distributed evenly between the rowers.
- Ensure you have enough space to move the boat – your trestles are ready and there are no obstacles in your path.
- **It is vital that you carry the boat along the gunwhales (sides of the shell) – don't carry it by any part that is not fixed to the boat (eg. riggers, seat, footstretcher).**
- Beware of the riggers of the floor-stored boats as you move out past them. You can hit your feet on them!
- **Be careful when turning boats on the pontoon – eights and quads are longer than our pontoon!**

MOVING THE BOAT

The commands in bold will be given by your coach. Please follow their instructions.

From the rack to the trestles

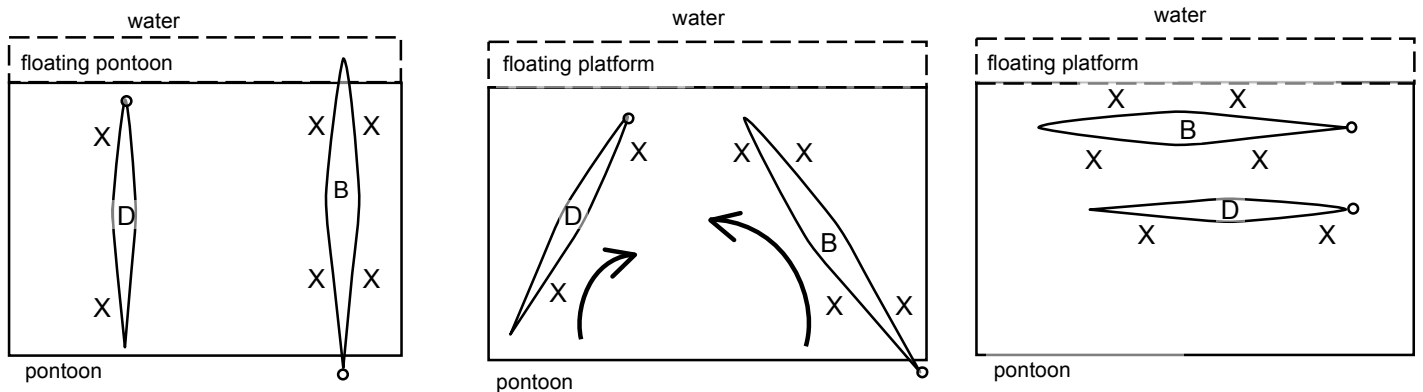
1. Equipment ready – make sure your trestles are positioned for your boat and the path is clear. If the boat is on a rack that slides out, slide it out so everyone has good access to the boat.
2. **HANDS ON** – check you have enough people and they're in the right positions for that type of boat.
3. **READY** – assume the lifting position – hands on the boat, balanced stance with your feet.
4. **LIFT** – slight lift of the boat to move it off the rack. For higher racks, the outside edge is rolled down. Beware of the racks & boats above your boat, so you don't lift too high!
5. **HALF TURN** - the boat, so the seats face the rack – watch the riggers don't hit the roof, or the floor..
6. Walk the boat to the trestles and stand either side of them.
7. **ROLL** – roll the boat over to face the right way up (the coach will call “to the “park” or “to the “bridge”).
8. **LOWER** – place the boat on the trestles – ensuring the shell (not the riggers) sits in the slings.

During this time, the foot stretchers and slides can be adjusted to suit the individual rower.

From trestles to the water

1. **HANDS ON** – check that you are in the right positions for that type of boat.
2. Rowers should stand in pairs on opposite sides of the boat, evenly spaced at either end.
3. **READY** – assume the lifting position – hands on the boat, knees bent, back straight.
4. **LIFT** – lift the boat off the trestles and move towards the water. **The bow should point towards the park.**

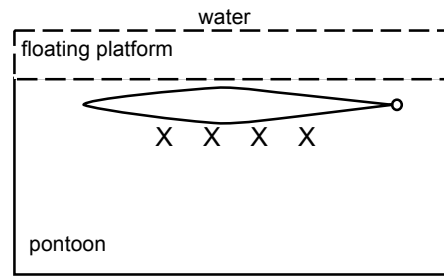
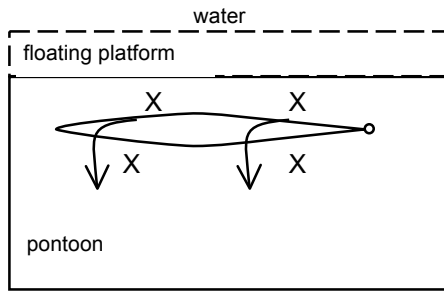
The movement of doubles is shown by “D” below. Big boats (quads and bigger) are represented by “B”.



WATCH THE ENDS OF THE BOAT - make sure it's clear of the clubhouse, as you turn the boat parallel to the water.

5. Stop at the edge of the floating pontoon.

- On your coach's call, the people on the Clubhouse side hold the boat and the people on the water side duck under the boat and take hold of it again from the pontoon side. Everyone ends up on the same side.



- FEEL FOR THE EGDE** – put one foot on the edge of the wooden pontoon – so you know where the step is.
- STEP DOWN** – step down together onto the floating pontoon.
- FEEL FOR THE EGDE** – put one foot on the edge of the pontoon – so you know where the water is. Make sure the fin is clear of the end of the pontoon, so you don't knock it and damage it.
- LOWER – OUT AND IN** – lower the boat onto the water – **BEND YOUR KNEES**. Keep your back straight, your tummy muscles tight (this is called using your core muscles) and do not bend from the waist.

Getting into the boat

- At all times half the crew should hold the boat (off the pontoon). The other half of the crew should collect the oars, or get or out as required.
- Everyone locks their PONTOON SIDE blade into the gate first.
- The coach will select two rowers to hold the boat and two rowers to get into the boat.
- When you get into the boat, ensure that you step only where the footprint picture is, or in the centre/front of the slides. **Do not step directly onto the hull of the boat** (under the foot stretcher) – you may put your foot right through it! Boats can only bear your weight on certain (structural) parts – not the hull itself.
- Secure your other blade. Work over your oar – that is with the handle sitting across your lap. Strap your feet in to the clogs or shoes and then **HOLD ONTO THE PONTOON**.
- The other pair will get in, secure their oar, strap in their feet and hold onto the pontoon.

Getting out of the boat

- Once you are stopped alongside the pontoon again – hold onto it and lean towards it.
- The coach/bow will select two rowers to hold the boat and two rowers to get out of the boat.
- When you get out, undo your water-side gate, remove the blade, close the gate and take the oar with you as you step out of the boat. Remember only to step where the footprint is.
- Place your oar to the side of the pontoon and then hold the boat for your teammates.
- Once everyone is out of the boat, you can undo your pontoon side gates, remove the blade & close the gates.
- Ensure all oars are on the sides of the pontoon, so you have space to walk and that your trestles are ready.

Moving the boat from the water to the trestles – this is the reverse of the process you followed to put the boat in

- Check the position of the boat along the pontoon and ensure the fin is clear of the end.
- LIFT (together)** – lift the boat to waist height in one coordinated move and step back on the floating pontoon. **It's really important to keep your back straight, your core tight and don't bend from the waist!** One at a time, the water side people duck under the boat and hold it opposite their fellow rower.
- ROLL** – roll the boat over (towards the water or towards the club), so it's upside down & easier to carry.
- The coach/bow will then indicate it is clear for you to move to your trestles on the pontoon. **BEWARE THE ENDS OF THE BOAT** as you turn around to align the boat with the racks.
- Once at the trestles, **ROLL** – the boat over and place it onto the trestles. Make sure the shell of the boat, not the riggers, sits in the slings.

Washing the boat

The boat should be washed with mild detergent inside and out, rinsed with fresh water and then dried. Pay particular attention to the metal and moving parts of the boat. The oars (especially the handles) should be washed with detergent, then rinsed with fresh water.

Putting the boat away

- HANDS ON** – check you have enough people, in the right positions along the boat & a clear path to your rack.
- READY** – hands on the boat, ready to lift.
- LIFT** – lift the boat off the trestles.
- HALF TURN** - the boat sideways (with the seats facing the rack) – if it has riggers attached.
- Move into the shed and stop alongside your rack. Slide out the rack if you can
- ROLL / LIFT / LOWER** (depending on the rack) – the boat onto the rack. **Ensure the fin is clear for boats stored near the roof**. You may need to pause here to let some rowers out from behind the rack.
- Slide the rack in gently and **WATCH YOUR FINGERS**.
- Put your oars and trestles away. Help put the coach's tinny away.

GLOSSARY OF ROWING TERMS

PARTS OF THE BOAT

Bow	forward end of boat – the part that crosses the finish line first
Bow ball	compulsory safety ball fitted to bow end of a racing boat
Bowside	(starboard) the left hand side of the boat when you're sitting in it
Canvas / deck	the part of the boat between the stroke or bow seat and the end
Fin	small flat plate attached to the bottom of the boat to aid steering a straight course
Foot stretcher	a frame with straps or shoes to anchor the rower's feet
Gate	metal bar across a rowlock that keeps the oar in place
Gunwale	sides of the boat - horizontal plank at the top of the hull running the length of the boat
Rigger	the metal or carbon fibre framework that supports the rowlock and holds the oar
Gate / oarlock	the bracket which swivels on the end of the outrigger to support the oar
Rudder	steering device attached vertically to the stern or under the hull of a shell
Stern	the rear or aft of the boat – the part the crosses the finish line last
Stroke side	(port) the right hand side of the boat when you're sitting in it
Slides / rails	parallel rails that the seat moves along on its wheels

PARTS OF THE OAR

Spoon / blade	the coloured part of the oar, that is pulled through the water
Shaft	the long, thin part of the blade, between the spoon and the handle
Handle	the part of the oar you hold onto (lightly)
Inboard	the distance between the handle of an oar or scull and the face of the button.
Button	adjustable plastic sheath on oar to prevent it from slipping through the rowlock
Outboard	the distance between the button and the end of the spoon

PARTS OF THE STROKE

square	the position of the blade perpendicular to the water
catch	the part of the stroke when the blade is put in the water
drive	where the oar is pulled through the water
tapping down	the downward movement of the hands that make the blade pop out of the water
finish	or "release" - the end of the drive, as the blade is taken out of the water
hands away	the movement of the hands away from the body once the oar is out of the water
feather	the position of the blade parallel to the water (this reduces wind resistance)
recovery	the part of the stroke where the blade travels above the water (between the finish and catch)
cycle	catch / drive (blade is square) / finish / hands away / recovery (blade is feathered) / catch
crab	occurs when the rower fails to get the oar out of the water – the force can throw the rower out of the boat
washing out	occurs when the blade comes of the water during the pull-through before the finish

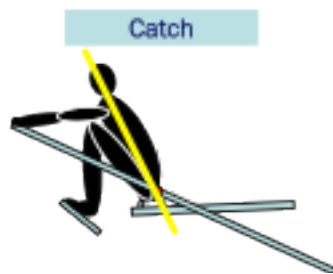



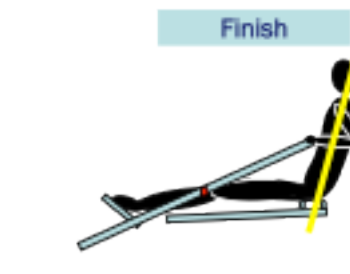
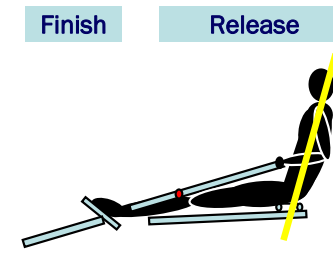
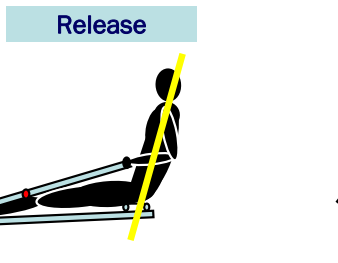
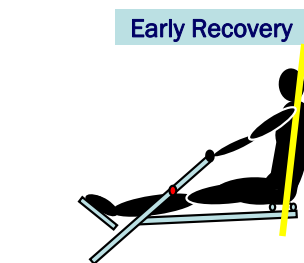


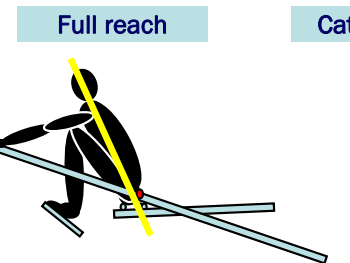
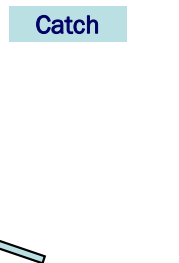
ROWING CALLS

easy oar	stop rowing and let your blades run along the top of the water
come forward	or "come to the front" - move the seat to the very front (legs bent)
half slide	seat halfway down the slide (legs are half bent)
go to the back	or "sit at back chocks" - move the seat to the very back (legs straight)
check the boat	stop or turn the boat - square your blades up and bury them in the water to slow it down
tap it around	legs are straight, short strokes (on one side) to turn the boat around
back it down	legs are straight, short reverse strokes (on one side) to turn the boat around forward
arms only	legs are straight – you row only with the body swing and the arms

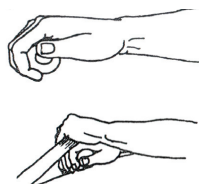
OTHER TERMS

coxswain	person who steers a sweep oar boat from the seat in the stern or a lying position in the bow
length	the length of a boat (i.e. "They won by one length")
puddles	the whirls left in the water caused by the movement of the blade
rating	the number of strokes per minute that a crew is rowing
rhythm	ratio between the time the blade is in the water vs the time it is out of the water
run	the distance a boat travels when the oars are not in the water
FISA	Federation Internationale des Societes d'Aviron; the International Rowing Association

BASIC ROWING TECHNIQUE

 <p>Catch</p>	 <p>Early Drive</p>	 <p>Mid Drive</p>	 <p>Late Drive</p>	 <p>Finish</p>		
<ul style="list-style-type: none"> • Blade is placed in the water by pivoting from the shoulder. • Sit in a tall, relaxed position with core engaged. • Shins are vertical, knees shoulder width apart. • Arms and wrists straight and relaxed. • Thighs have come up to meet the body. 	<ul style="list-style-type: none"> • Push off the feet to move the hips and body towards the bow • Maintain straight and relaxed arms and wrists with tall, braced body position • Suspend the body from the handle (like hanging from monkey bars) • Primary power source is generated by the legs 	<ul style="list-style-type: none"> • Body lever begins • Maintain the suspension of the handle from the arms and body • Legs continue to accelerate the hips towards the bow, feet flat against the stretcher • Maintain an even blade depth by coordinating a flat draw through 	<ul style="list-style-type: none"> • From mid-drive to late-drive, an overlap occurs of leg extension, body lever and arm draw • Hips accelerate towards the bow until legs are fully extended (or locked down) • Body levers such that shoulders move behind the hips • Arms begin to break at the elbow and handle accelerates towards the chest (arm draw) 	<ul style="list-style-type: none"> • Final arm draw - arms (with flat wrists) complete their acceleration towards the chest • Bracing of body and legs in completed • Pressure is maintained on the foot stretcher • Shoulders remain behind the hips, chin is behind the handle • Maintain even blade depth 		
 <p>Finish</p>	 <p>Release</p>	 <p>Early Recovery</p>	 <p>Early - Mid Recovery</p>	 <p>Mid - Late Recovery</p>	 <p>Full reach</p>	 <p>Catch</p>
<ul style="list-style-type: none"> • Hands tap down to release the blade from the water • Shoulders and elbows do not change in height • Relaxed grip – oar is rolled in the fingers to the feathered position • Hands more through the finish and release at an even speed 	<ul style="list-style-type: none"> • Hands away – hands lead relaxed arms away from the body • Hands move in a horizontal plane towards the stern • Legs remain extended until hands pass over the knees • Even pressure on the feet • Body begins to pivot towards the stern 	<ul style="list-style-type: none"> • Body rock – body pivots forwards – shoulders move in front of hips • Arms remain extended & relaxed • Hands move past knees, before the knees lift • Coordinated movement of the hands, body and legs • Body travels steady up the slide – weight in the centre of the boat • Body weight is suspended between the front of the seat and the feet • Have a clear picture in your mind of the catch 	<ul style="list-style-type: none"> • Fingers begin to square up the blade • Hands and straight arms continue to lead the body forwards • Body and shoulders near full extension • Seat continues to roll towards the stern in a controlled manner • Shins move towards vertical • Weight is balanced lightly on both feet 	<ul style="list-style-type: none"> • Prepare to place the blade at optimum length • Tall, relaxed, strong body position. • Arms and wrists are straight • Blade is square and ready to be placed into the water • Arms are prepared to pivot from the shoulder to drop the blade into the water • Shins are vertical, knees shoulder width apart, pressure is felt through the balls of the feet • Seat is stable 		

BASIC HAND GRIP



SCULLING

- relaxed hold – in the fingers, not the palm
- thumbs over the end of the handles / grips
- flat wrists at all times
- feather with the fingers, not the wrist
- hold the handles gently (like you're holding a budgie)
- left over right at the crossover

SWEEP OAR

- hands comfortably apart (1 - 2 fists apart)
- relaxed hold – grip is in the fingers
- outside hand is a hook & grips the end of the handle
- outside hand draws the oar through the water and keeps the button pressed against the gate
- inside hand feathers with fingers

