



## Murwillumbah Rowing Club Inc.

P.O. Box 846  
33 Tumbulgum Rd  
Murwillumbah NSW 2484  
[www.murwillumbahrowing.com.au](http://www.murwillumbahrowing.com.au)

ABN 35 079 900 893



## Teachers Handbook

### Rowing in Murwillumbah

The Murwillumbah Rowing Club was founded in 1976 with a donation of \$100 from the local Rotary club, and assistance from Tweed Heads Rowing Club.

At that time a local business, Greenhills on the Tweed, allowed the club to store its equipment under their restaurant in River Street. There are 3 foundation members who are still active in the clubs affairs.

We moved to our present location at 33 Tumbulgum Rd in 1981.

It is believed that a rowing club existed in Murwillumbah in the 1930s. We would like to be contacted by anyone who has any information on this.

### MRC Mission Statement

- To facilitate and nurture Rowing at all levels of participation
- To provide the opportunity for all members to achieve their goals

### Our Values

Our values, in relation to all dealings with our stakeholders and each other, are to:

- Encourage participation
- Strive for excellence at all times
- Foster inclusion, cooperation and teamwork within the club and with all external stakeholders
- Engender respect at all times
- Facilitate fun and enjoyment for all

Please note: this is a **non-profit**, volunteer driven club which promotes **accessibility** to anyone who enjoys rowing.

The club is run and maintained through membership fees, donations of time and some external sponsorship.

The Learn to Row fees cover the costs of RQI rowing insurance for each participant.  
It does not cover lost or damaged equipment.

## Safety

### Of the rower

- Use sun and chill protection.
- Be able to swim (at least 100mts)
- Warm up and have adequate hydration
- Follow instructions of supervising adults and coaches

### Of the equipment

- Follow the club's boat policy (see page 7)
- Use and carry boats and equipment correctly
- Wash down, clean and return all equipment

### On the river

- Stay within sight of teacher or coach
- Bow rower to regularly check direction of boat and for obstacles
- Understand river rules and signs

## Stability

- Keep the dry side up.
- Never let go of oar handles
- Keep hands together (left hand on top of right)
- Other than the bow (or coxswain) all rowers should focus on the rower in front. Keep your head up.

## Style

- Grip the oar handles correctly.
- Practice movement sequence of: Legs – tummy – arms - - - arms - tummy – legs
- Keep in time with each other (the stroke sets the pace)
- Practice tap outs (tap and turn of oars); oar blades off water during recovery;
- Practice moving hands over each other

## Strength/Stamina

- Practice leg drives – rowing is a **leg** sport ...a slow recovery and then a hard leg drive.
- Practice pushing for 250 metres (about 30 strokes), then 30 light, then 30 heavy... etc
- Practice one heavy, one light, one heavy ...or a pyramid (5 heavy, 5 light, 10 heavy, 10 light, 15 heavy etc up to 25 heavy) ...then work back down the sequence.

## Speed (this is where the wheel falls off)

- Practice racing starts (half/half/three-quarters/full stroke)
- Practice a high rating – 30 strokes a minutes. Do NOT shorten up the stroke. You just become an egg beater.

## Safety First

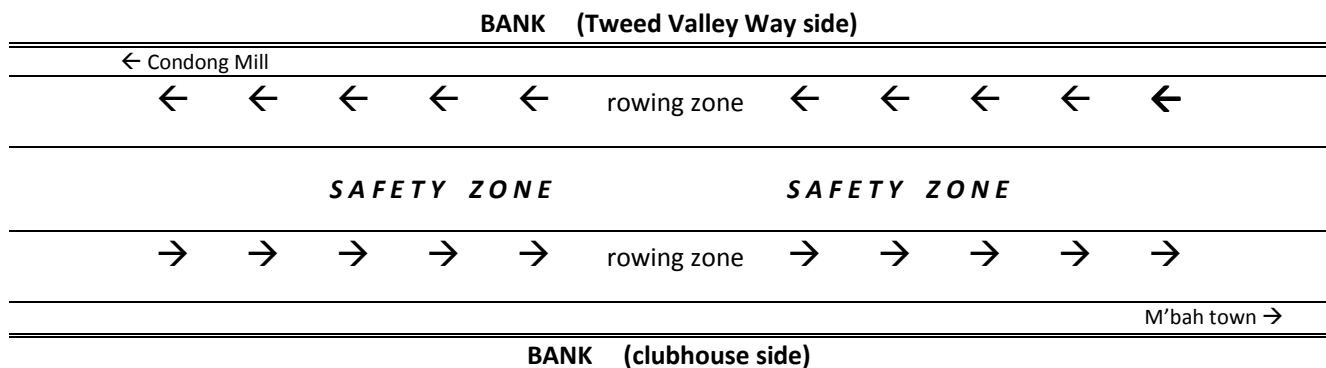
Like all aquatic sports, rowing has some basic necessities in order to prevent serious injury.

Rowers should be able to:

- Swim at least 100 metres.
- Understand and obey the river traffic rules, restrictions and hazards of all waterways on which you intend to row.
- Newcomers should not row unless accompanied by coach or experienced rower.
- Assess weather conditions before rowing. Do not row if a lightning appears imminent or visibility is poor (fog, heavy rain). Do not row when river is swollen from floods or heavy rain.
- Bow rower in coxless boats should turn and check their course regularly for obstacles and be wary of craft that might change course without notice.
- Protect yourself from the effects of heat and sun. Avoid training in temperatures over 30 degrees Celsius; wear a hat, long sleeve training top, water resistant sun block & sunglasses; drink water up to the rate of 250ml per 15 minutes of exercise. Water bottles should be in a soft covering (eg a sock), so as not to harm/rub the shell of the boat.
- In cold weather, dress to retain body warmth in order to prevent injuries and/or illness.
- Make sure you have warmed up prior to any strenuous training session or a race.

## River Water Safety Rules

1. Direction of travel



2. Rowers should observe the above traffic flow with particular notice paid to the 'SAFETY ZONE'.  
Avoid rowing in the Safety Zone.
3. Crews being overtaken should be alerted by shouting and move aside as soon as practicable to avoid collision.
4. When changing direction crews are to proceed to the opposite side in the shortest possible route and give way to all traffic.
5. Official competition boats have right of way during designated regattas, for the length of the competition course.
6. At the completion of a Regatta race – do not obstruct other boats by stopping on the finish line or immediately beyond. Retire to a safe distance.

## RED and GREEN BUOYS

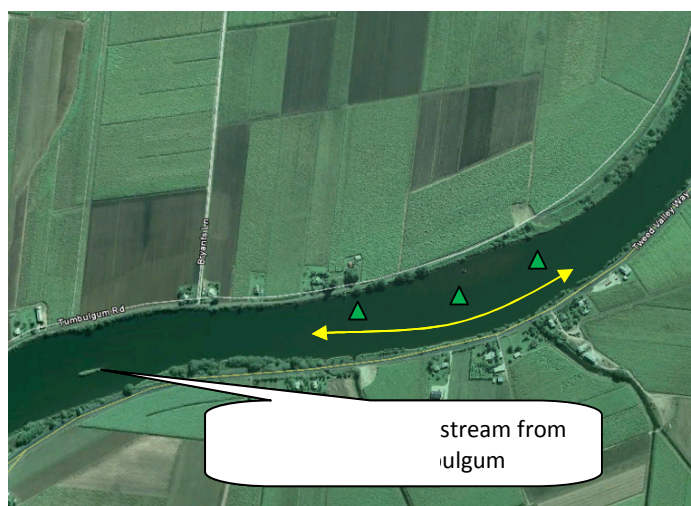
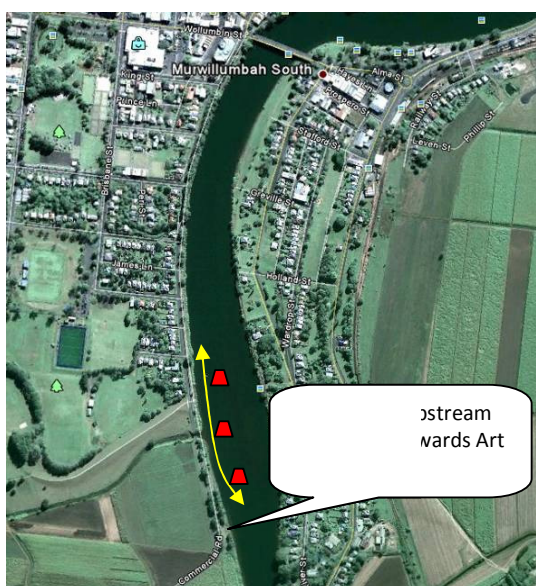
Rowing **UPSTREAM** :: **GREEN BUOYS** :: Rowers must keep a green buoy on the cox's **RIGHT** hand side when traveling upstream. Therefore, the green buoy must remain on the boats BOW side.

Rowing **DOWNSTREAM** :: **GREEN BUOYS**:: Rowers must keep a green buoy on the cox's **LEFT** hand side when traveling downstream. Therefore, the green buoy must remain on the boats STROKE side.

Rowing **UPSTREAM** :: **RED BUOYS** :: Rowers must keep a red buoy on the cox's **LEFT** hand side when traveling upstream. Therefore, a red buoy must remain on the boats STROKE side.

Rowing **DOWNSTREAM** :: **RED BUOYS**:: Rowers must keep a red buoy on the cox's **RIGHT** hand side when traveling downstream. Therefore, a red buoy must remain on the boats BOW side.

On our rowing course we mostly have two main sets of buoys to navigate:



in shaped]

EAM  
green, cone shaped]  
Island.

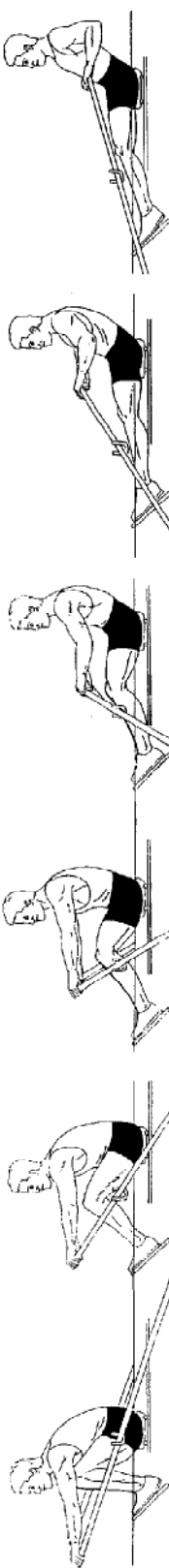
**MRC web site:** <http://www.murwillumbahrowing.com.au>

The MRC website is an ongoing source of information about the club's activities. It has all the latest information, requests, news, history, safety notices, events, membership forms and links to other rowing sites. You'll also find information on regattas, how to compete and details about social events. There are copies of this document – and other useful teaching documents on the MRC website.

**Email contacts:** (refer to website for current office holders)

- [captain@murwillumbahrowing.com.au](mailto:captain@murwillumbahrowing.com.au)
- [treasurer@murwillumbahrowing.com.au](mailto:treasurer@murwillumbahrowing.com.au)
- [president@murwillumbahrowing.com.au](mailto:president@murwillumbahrowing.com.au)

# Rowing (sculling) TECHNIQUES



## CATCH

- No stop of the hands or seat.
- Blades catch the water smoothly, continuously and directly.

## EARLY DRIVE

- Initial drive with legs through a strong body.
- Shoulders same height.
- Extension of knee and hip joints.

## MID DRIVE

- Legs and body in powerful 'hang' position - suspension of body weight between handle and feet.
- Arms straight, shoulders directly above seat.

## MID LATE DRIVE

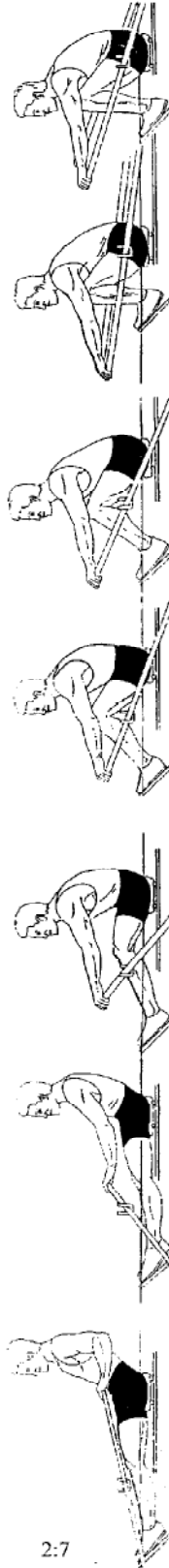
- Hands at toes over position.
- Shoulders and arms start to draw.
- Shoulders behind the seat.
- Legs work vigorously down.

## LATE DRIVE

- Shoulders behind the seat.
- Shoulders and arms draw in the accelerating handle.
- Attempt to finish handle simultaneously with the leg drive.

## FINISH

- Powerful position of the body, arms and shoulders.
- Wrists flat.
- Forearms horizontal.
- Elbows/Shoulders pulled back.
- Hands ready to cross down.



## RELEASE

- Body does not move.
- Hands move down to release blade then feather (see GRIP below).
- Shoulders and elbows same as finish.

## HANDS AWAY

- Hands move away approaching the 'CROSS-OVER' (see below).
- Legs straight and relaxed.
- Arms straight and relaxed.

## EARLY RECOVERY

- Body swings over.
- Knees allowed to fall.
- Centre of gravity between seat and feet for stable, balanced position.

## MID RECOVERY

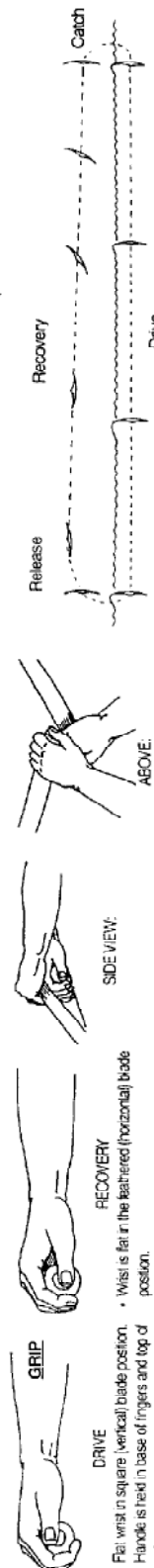
- Forward body swing continues.
- Seat moving at constant speed.
- Blade starts to square.
- - roll handle into base of fingers.

## LATE RECOVERY

- Body swing complete.
- Arms fully extended, wrists flat.
- Blade almost square.

## FULL REACH

- Full compression toward wrist.
- Straps vertical.
- Chin above knees.
- Chest on thighs.
- This may be slightly more upright than sweep oar.
- No stop of seat or hands.



## GRIP

- Flat wrist in square (vertical) blade position.
- Handle is held in base of fingers and top of palm.
- Second joint of fingers is most distant from body and half way around the handle.

## RECOVERY

- Wrist is flat in the feathered (horizontal) blade position.
- Handle is rolled out into the fingers AFTER depressing the handle to release the blade from the water - note slight gap between handle and palm.
- Third joint of fingers is most distant from body.

## DRIVE PHASE CROSS-OVER

- Left hand is above and slightly astern of the right hand.

## BLADE-WORK

# ROWING EQUIPMENT

## Oars

Oars are hollow to reduce weight and are attached to the boat by adjustable outriggers. The size and shape of oars is unrestricted so oars are generally chosen according to palm size. The average length of a sweep oar is 3.81m and of a scull is 2.98m

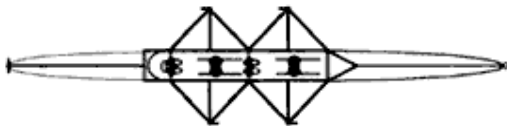
## Boats

Boats or shells were traditionally made from wood, but are now mostly fabricated from carbon fibre and plastic (eg. Kevlar). They are 597 to 622 mm wide, and from 8.2 to 19.9 metres long. A small fin is fitted at the bottom for stability. A white ball is attached to the bow (for safety and photo finishes). A washboard prevents waves from splashing water aboard. Seats are fitted with wheels which roll on tracks called slides.

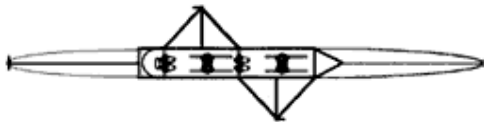
## Guide to Boat Types



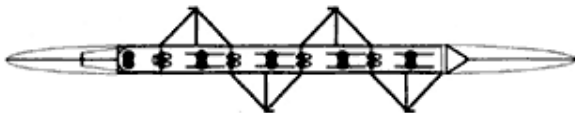
**Single Scull:** smallest of all rowing boats. It is used by one athlete, with a pair of sculling blades (one in each hand).  
Approx length: 8.2 m; Min Weight: 14 kg



**Double Scull:** two rowers, each using a pair of sculling blades.  
Approx length: 10.4m ; Min Weight: 27 kg



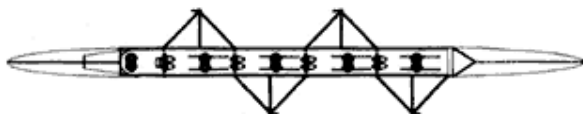
**Coxless Pair:** rowed by a pair of rowers each with a single sweep oar.  
Approx length: 10.4 m ; Min Weight: 27 kg



**Coxed Four:** four athletes rowing, each with a single sweep oar. A coxswain is on board to steer the boat.



**Quad Scull:** four athletes on board, each with a pair of sculling blades.  
Approx length: 13.4 m ; Min Weight: 52 kg



**Coxless Four:** four athletes on board, each with a single sweep oar. No coxswain is on board to steer the boat - the athlete at the stern of the boat steers via a cable connecting the rudder to his foot stretcher.



**Coxed Eight:** is the largest of all boats used in racing. There are eight rowers on board, each with a single sweep oar. A coxswain does the steering. Eights are constructed in two sections which bolt together (for transportation). The maximum length of a section of an Eight is 11.9 metres. Approx total length: 19.9 m, Min Weight: 96 kg

## MRC BOAT POLICY

1. All members should ensure they are able to **safely carry** boats to the river. Get help if you need it.
2. Due care is to be taken at all times to **prevent damage** to any boats and equipment.
3. When more than one person is carrying a boat, each person should be approximately one quarter of the boat length from the end of the boat. New members will be shown how to do this.
4. Ensure all **gates** (*see glossary of terms*) are closed when carrying and storing boats.
5. **Socks** are to be worn in all boats. This is to avoid blisters from rowing footers.
6. When boating up (stepping into the boat from the shore), ensure that the boat is far enough into the river to prevent the fin touching the bottom when you get in it.
7. While on the river, **downstream** traffic is to keep to the **highway** side of the river and **upstream** traffic is to keep to the **clubhouse** side of the river.
8. All boats are to enter and leave the boating area facing upstream. i.e. bow ball towards Mur'bah bridge.
9. If boats are left on the river bank, ensure that **the fin** is not on the ground and that there are no stones on the ground where the boat is to be left. Boats are not to be dragged across the ground.
10. Boats are not to be left in the water unattended, even for a short period of time.
11. After use, all boats and oars are to be **thoroughly washed** inside and out, and dried off, prior to storage. Coaching boats also need to be cleaned out.
12. Chamois are to be rinsed and hung up after the boats and oars have been washed down. Ensure all taps are turned off completely.
13. All boats stored in the shed are to be stored: "**Bow ball first**", unless otherwise indicated.
14. Boats and oars are to be stored on their designated racks.
15. Wherever possible designated oars are to be used with their respective boats. Oars need to be returned to their correct racks.
16. If any boat or equipment needs **repair or adjustment** and you are unable to affect it, then it is to be noted on the "Jobs" board, located adjacent to the central roller shutter.
17. The tinnie boats should only be driven by those with a boating license.
18. The tinnie motors require a regular 'flushing' – ask a member how this is done.
19. Private boats and oars stored in the clubhouse are **not to be used** without the express permission of the owner.
20. The **club captain** is responsible for organizing all boating matters. Ask if you are unsure.
21. If a rower or a crew is being actively coached, **the coach** is responsible for boat navigation.
22. Some boats may be reserved for "Regatta Crews". These boats are not to be used without the permission of the club captain.
23. All members who are competing at regattas are required to **help load and unload** the boats and equipment from the boat trailer – or your boat / equipment may be left behind.
24. All members who enter races at regattas must reimburse seat money for all races they do not compete in.

## CLUB INFORMATION

### Officers of the Club

The Club is managed by a General Committee consisting of the President, Vice President, Club Captain, Secretary, Treasurer and two ordinary members. Other positions are also filled: Child Protection Officer, Public Officer, Regatta Secretary. See MRC website for the current committee. [www.murwillumbahrowing.com.au](http://www.murwillumbahrowing.com.au)

### Membership

Members may be classed as Life Members, Senior Members, Junior Members, or Social Members. Social members can use Club facilities but are not insured and are not allowed to row or use rowing equipment.

### Membership Fees

See the website for current fee structure. Go directly to [www.murwillumbahrowing.com.au](http://www.murwillumbahrowing.com.au)  
Fees are based upon the calendar year, are payable in advance and an annual invoice is sent to each member.

### Rowing Insurance

As a Club, we are covered under Public Liability with Rowing Queensland (RQI). Individual rowers are required to pay for RQI Insurance – as Juniors, Learn to Row, Recreational or Competitive. See RQI website for fee schedules - [www.rowingqld.asn.au/](http://www.rowingqld.asn.au/). (click: → Get Involved → Membership.)

**Note: no member can represent the Club in Regattas unless that person is insured for competition under RQI.**

**Keys**      Members can get the combination for the front door from the any Committee member.

### Zoot Suits (rowing suits in club colours)

The registered MRC colours are aqua and black and we have our own zoot suit design. All members racing in a regatta are expected to wear a zoot suit, or similar clothing, in their Club colours. Zoot suits (about \$60 in 2009), and other club clothing can be ordered. – see the Club Captain

### ROWING PROGRAM CODES

In a Regatta Program, the following symbols/codes to indicate races:

<b>M</b> = Mens <b>W</b> = Womens <b>Mix</b> = Mixed	<b>N</b> = Novice <b>O</b> = Open <b>I</b> = Intermediate <b>Σ</b> = Masters <b>Hcp</b> = Handicap	<b>1X</b> = Single Scull <b>2X</b> = Double Scull <b>4X</b> = Quad Scull <b>4X+</b> = Quad Scull (coxed)	<b>2-</b> = Coxless Pair <b>2+</b> = Coxed Pair <b>4-</b> = Coxless Four <b>4+</b> = Coxed Four <b>8+</b> = Eight (always coxed)
<b>U15</b> = Under 15 <b>U17</b> = Under 17 <b>U20</b> = Under 20	U15 is up to 31Dec in the year the competitor turns 14, U17 is up to 31Dec in the year the competitor turns 16, U20 is up to 31Dec in the year the competitor turns 19,	i.e. they are <i>under</i> 15 i.e. they are <i>under</i> 17 i.e. they are <i>under</i> 20	

Examples of races would be

No	Time	Code	Event	Dist.
1	8:30 AM	W Nov 1x	Womens Novice Single Scull	1000
2	8:38 AM	ΣM/ M Hcp 2-	Masters Mens & Mens Handicap Pair	1000
3	8:46 AM	MO/ MU20 4+	Mens Open & Mens Under 20 Coxed Four	2000
4	8:54 AM	MU15 1x	Mens Under 15 Single Scull	1000
5	9:02 AM	ΣW/ WI 4x-	Masters Womens & Womens Intermediate Quad Scull	1000
6	9:10 AM	WU17 2x	Womens Under 17 Double Scull	1000



## GLOSSARY OF ROWING TERMS

<b>Blade</b>	Flattened or spoon-shaped end of oar or scull; often used as term for oar.
<b>Bow</b>	Forward end of boat.
<b>Bow</b>	The person in the Bow seat of any coxless crew assumes primary responsibility for the safety of that crew. That person becomes the lookout. When there is a coxswain in the boat, then the bow person shares responsibility with the coxswain. Remember, sometimes the coxswain's vision is temporarily obscured.
<b>Bow ball</b>	Safety ball fitted to sharp stem of racing boat.
<b>Bowside (starboard)</b>	All rowers whose oars are on the right hand side of the boat when viewed from the stern.
<b>Button</b>	Plastic sheath on oar or scull to prevent it from slipping through the rowlock.
<b>Canvas</b>	The canvas on fore and aft decks of a boat.
<b>Catch</b>	The part of the stroke when the blade is put in the water.
<b>Coxswain</b>	Steer the boat from the seat in the stern or a lying position in the bow.
<b>Crab</b>	Occurs when the rower fails to get the oar out of the water at the end of the stroke and can result in the rower being ejected from boat to water.
<b>Crew</b>	Rowers who man a boat.
<b>Drive (pull-through)</b>	The part of the stroke between the catch and the finish.
<b>Feather</b>	To turn the blade parallel with the water surface at the start of the recovery to reduce resistance.
<b>Fin</b>	Small flat plate perpendicular to the bottom of the boat to aid steering a straight course.
<b>Finish (release)</b>	The part of the stroke just before and as the blade is taken out of the water.
<b>FISA</b>	<i>Federation Internationale des Societes d'Aviron</i> ; the International Rowing Federation.
<b>Gate</b>	Bar across a rowlock to retain the oar.
<b>Gunwale</b>	Horizontal plank at the top of the hull running the length of the boat.
<b>Hands away</b>	The act of dropping the oar handle at the finish of the stroke so that the blade leaves the water and is feathered at the start of the recovery; sometimes referred to as "out of bow".
<b>Inboard</b>	The distance between the far end of the handle of an oar or scull and the face of the button. The remainder is called the out board.
<b>Length</b>	The length of a boat (ie "They won by one length").
<b>Oar</b>	A lever approximately (360cm) long by which the rower pulls against the rowlock to move the boat through the water.
<b>Rating (beat)</b>	The rate of stroking, or the number of strokes per minute that a crew is rowing.
<b>Recovery</b>	The part of the stroke cycle between the finish and the catch in which the oar is feathered and the seat is returned to the aft end of the boat.
<b>Regatta</b>	A competitive event raced in boats.
<b>Repechage</b>	A second heat to afford another chance of qualifying to those running second best in preliminary heats.
<b>Rhythm</b>	The proportion of time occupied on the recovery to the time taken on the pull through.
<b>Rigger</b>	A metal framework or a carbon-fibre reinforced arm to support the rowlock which is placed approximately 760 mm from the centre of the boat.
<b>Rowlock (oarlock)</b>	A bracket which swivels on the end of the outrigger to support the oar.
<b>Rudder</b>	Steering device attached vertically to the stern or under the hull of a shell.
<b>Run</b>	The distance a boat travels in one stroke.
<b>Sculling</b>	Using two oars or sculls.
<b>Slides</b>	Parallel rails in which the seat moves on wheels.
<b>Stern</b>	The rear or aft of the boat.
<b>Stretcher</b>	A frame with straps or shoes to anchor the rower's feet.
<b>Stroke</b>	The complete cycle of moving the boat through the water using oars or sculls.
<b>Stroke</b>	The rower seated nearest the stern.
<b>Stroke side (port)</b>	All the rowers whose oars on the left hand side of the boat when viewed from the stern.
<b>Washing out</b>	Occurs when the blade comes out of the water during the pull-through, <i>before</i> the finish.

# Learn-to-Row LESSONS

Organized over 4 weeks/sessions of lessons and practice.

## Lesson 1

### Introduction:

- Check new rowers' registration, ability to swim and for any conditions affecting safety.
- Show Club facilities; Supply booklet on rowing for sport; Explain Tweed River rowing course.

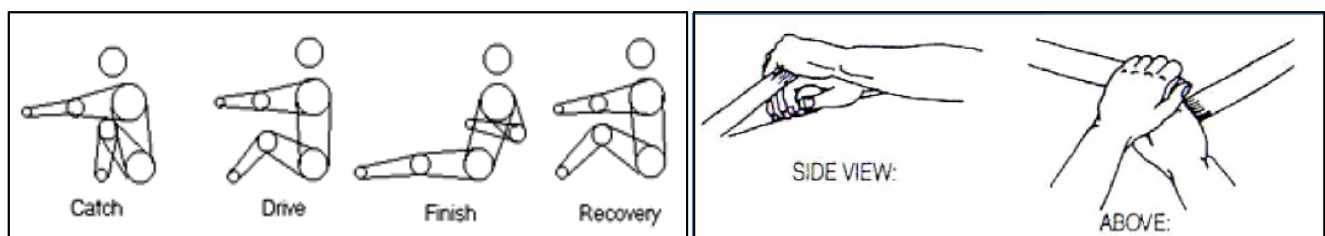
### Show & Explain the following:

- Introduction to boats
  - types of boats eg eights/quads/doubles/singles
  - parts of boats eg gates, slides
  - club boats eg club boats /private boats
- Introduction to oars
  - sweep/skull
  - how to select skull oars (matching set) by palm size.
  - carry & place at water's edge.  
*Preferably start with a quad and at least ONE experienced rower.*
- How to carry boats
  - removing from rack, where to hold, carry upside-down, use stretchers
- How boats enter water
  - bow ball must point towards Mur'bah Bridge
  - roll boat and place in water, seat positions & roles

*Remember: we row on opposite side to the way we drive.*

### Demonstrate & practice the following:

- How to get into boats
  - one hand holds **both** oar handles, - **NEVER LET GO OF HANDLES**
  - foot on **marked** area in boat, - get in on command
- Steadying the boat
  - demonstration of **CORRECT GRIP**
- Resting positions
  - practise feathering, - holding square, - feeling for 'clunk' of collar in gate.
  - 'Easy Oar', blades flat on water - **NEVER LET GO OF HANDLES** (reiterate)
  - importance of having hands level with each other (or touching)
  - show **LEFT hand over RIGHT** movement
- Adjusting & storing
  - foot stretchers, stow water bottles,
- Rowing sequence
  - move in sequence: - LEGS - TUMMY - ARMS ->- ARMS - TUMMY - LEGS
- Handling the oars
  - row a few strokes at 'back-chocks' (ie. NOT using legs – only tummy/arms)
  - alternate 1 or 2 rowers, while others steady boat (they are at Easy Oar)
  - row clockwise circles with one oar only. Then try anti-clockwise circles.
- Slide technique
  - Catch - Drive - Finish - Recover
  - keeping in time
- Finishing
  - exiting boats, - lift and carry, - cleaning equipment, - replacing equipment



## Lesson 2

- Rowers get own oars and boat down to water. Check correct carry and handling.
- **On the water:**
- **Revision of pointers from Lesson 1** and **particular practice of :**
- Correct **GRIP**,
- Rowing sequence LEGS – TUMMY - ARMS ->- ARMS – TUMMY - LEGS
- Keeping **IN TIME**. - follow the *seat* of the person in front. Row up and down beach.
- Demo/practice some **REVERSE** rowing. (in case crew gets stuck in reeds)
- Practicing blade, body & grip technique with timing. If timing is off: - try bow pair OR stroke pair only, - or try hesitation rowing. (Row in the general club area - not beyond the overhead wires)
- Check no rower is doing a 'harbour bridge' – handles should be pulled back in a flat line.

## Lesson 3

- **As per lesson 2** and
- Further practise of technique and timing: - hesitation rowing, - one soft, one hard, - calling "IN" at the catch. (Move time-challenged rowers' positions toward the bow)
- Practise '**SLOW the slide**': - rowers move up the slide slowly (towards the rear of boat), then push hard and fast on the power stroke, then slow up the slide again.
- Practice **TAP and TURN**: - at end of stroke, with hands close to chest, TAP the handles down, then TURN the handles to feather the blade.
- If ready, have rowers try 500 or 1000 meters without stopping. Concentrate on one technique per run ...with a mental break in between.

## Lesson 4

- **As per previous lessons** (depending on individual progress) and **also:**
- Move towards using Doubles and or Singles. (these boats are far more twitchy... and do capsize!)
- Explain, if anyone capsizes, stay with the boat (they all float) and swim it to shore.
- Start rowers in a Single with a rope held by the instructor on the beach. The aim is to first become comfortable with maintaining the stability of the boat. Allow plenty of time. Check the effects of (vertical) hand movements on boat. Then tap around left, tap around right. Then progress to half strokes, then full strokes.
- With team boats practice sets of strength strokes: - 3 leg pushes, 3 normal, 3 leg pushes. Move up to sets of 10 leg pushes, 10 normal. (Have one rower call out the count.)
- If ready, have 2 boats start rowing on command to a pre determined point. Concentrate on a particular skill or maintaining a technique correctly.

Our Learn to Row motto: *"Learn a little, laugh a lot."*