INSERT CORE SCHOOL NAME HERE

Boat Smart
Boating Safety in Schools

Hub Handbook

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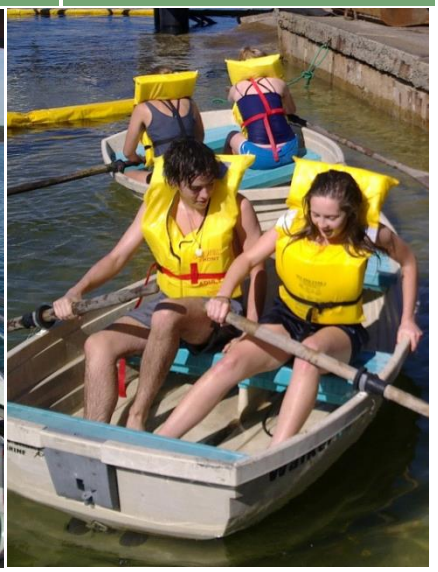

MARINE TEACHERS' ASSOCIATION of New South Wales

NSW GOVERNMENT

BIA

Boating Industry Association of New South Wales Ltd

INSERT SCHOOL ADDRESS/HUB REGION

Boat Smart – Boating Safety in Schools

Contents

This handbook has been developed by the Marine Teachers Association in conjunction with the Boating Industry Association of NSW Ltd.

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Running Order

1. Arrival. Boat and trailer should be placed on the ramp above the waterline for a Pre-Launch Discussion of maintenance and safety procedures.

2. Issue hats and ensure students are wearing sunscreen.

3. Boat and Trailer Maintenance should be discussed before launch, pointing out important features to be checked regularly including;
   * oil and fuel levels, especially two stroke oil,
   * lubrication of trailer parts especially wheel hubs, springs, brake cables, goose-neck and tow-ball,
   * winch operation, safety chain attachment, bow and stern ropes,
   * removal and operation of tie-downs,
   * insert bungs (remind students not to over-tighten plastic threads).

4. Check the motor will start.

5. Check and show the location of standard safety label and safety equipment in the boat including;
   * lifejackets,
   * paddles/oars,
   * fire extinguisher,
   * bucket and line/bailer,
   * first aid kit,
   * distress signal equipment/sound signal,
   * anchor/chain and rope,
   * waterproof torch.

6. Keep the engine in raised position for launch and remove any prop cover or safety flag.

7. Launch. Assign students to launch tasks;
   * student 1; release the safety chain shackle from the bow eye
   * student 2; hold and operate the winch handle (be sure to instruct student not to release the grip on the handle as it will rotate quickly risking a strike to the wrist or arm)
   * student 3; push the bow slowly, following the boat down the trailer running board and release winch strap hook from the bow of the boat when the boat is floating freely, then hook it to a hole in the running board for tightening.

8. The boat should be brought close to the wharf /pontoon, and protection bumpers should be tied to the boat gunwale in the correct position by students. The vessel is now ready for the first group of student drivers.

9. Student Driving. Divide your overall time by the number of groups you are going to take out over the course of the day, eg. Usually 9.30-2.30 (5 hours) divided by 8 max.(groups of 3) equals

about 38 min. each group. Ideally try to stick to no more than 21 students at 40 min. sessions to give some changeover time (more time behind the wheel is best).

Driving procedure should include;

* all students are to wear lifejackets in the boat,
* repeat discussion of all safety items' location,
* discuss starting procedure and safety 'cut out' lanyard,
* emphasise slow manoeuvring when leaving the wharf or marina and discuss the reason for 'no wash',
* emphasise the need to constantly look all around to be prepared for other oncoming vessels
* point out the speed and depth indicator and refer to these constantly
* students behind the wheel should be instructed to listen and feel the gear change, slowly (3-4 kn) move forward zigzagging the boat to get a feel of the delayed steering of a boat especially at slow speed (reinforce the need to glance regularly astern for other vessels),
* when the student appears confident increase speed to about 6-7 kn in a straight line, discussing 'distance off' rules and keeping to starboard (right),
* allow the student to increase speed to, but not over, 10 kn, constantly referring them to their speed indicator,
* point out all navigation marks available,
* when the student appears confident instruct them to glance astern, then when safe, perform a figure-8 manoeuvre, crossing their own wash and keeping the bow close to 90 degrees to the wash,
* choose a suitable location and instruct the student in a slow reversing manoeuvre, preferably towards a stationary mark or between well-spaced moored vessels (discuss the reason for slow reverse and water pushing against the stern),
* be well aware of your time frame, about 10-15 min for each student behind the wheel.

10. As the first driving group leaves start the lifejacket / dinghy drill.

11. Lifejacket and Dinghy Drill. The students should be shown a variety of PFDs then asked to put on a lifejacket in a hurry. Each student should do this. This can be made into a fun drill possibly finishing with the lifejacket wearer in the water.

12. The student should be shown how to operate oars in a dinghy. Each student should practice rowing with a passenger, followed by a short rowing race culminating in a controlled dinghy capsize. All students need to know what it feels like to be floated correctly by a PFD and be mindful of others who may also be in the water and require assistance.

13. RMS, Maritime Boating Officer session. The local BO should be utilized as the knowledgeable professional (booked in advance via the local area Supervisor) to discuss various topics with students including; working for RMS, marine employment, water safety, emergency procedures, distress signals, emergency communication, waterway regulations. Keep in mind these officers are not teachers and should be given a clear guide as to what is required of them beforehand. If

necessary, provide Boating Manuals to refer to or other visual aids to assist in explanations. Refer to page 7 for a suggested running order.

14. Small Outboard Operation. Students should be shown how to set up a small outboard motor on a trolley, with the propeller submerged in a suitable bucket full of water. Students should be shown that the water level must be above the motor water intake. Basic operation and characteristics of a small outboard should be pointed out such as;
    * addition of oil to the fuel at the correct ratio,
    * don't over-tighten plastic screw cap,
    * removing the engine cover,
    * locating and discussing the function of the sparkplug,
    * fuel on/off,
    * setting the choke (discuss the function of the choke),
    * the pull cord and throttle setting,
    * the tell- tail (indicates that the water pump is operating),
    * the function of the water pump,
    * the safety cut-out and lanyard,
    * the gear lever,
    * use of lubricant/corrosion reducing sprays.

15. Anchoring. Discuss the function and need of an anchor and the different types available. Students should be shown how an anchor and chain is put out and how different anchors such as sand and rock anchors work. Discuss the need to be sure the anchor is fastened to the boat.

16. Retrieving the Boat to its Trailer. Once the trailer is returned to the ramp, students should be allocated tasks to allow them to place the boat back safely onto its trailer. These tasks should include;
    * motor returned to raised position,
    * operation of the winch,
    * reattaching winch strap hook to the bow-eye and directing the hull along the centre of the trailer,
    * re-attaching safety chain shackle to bow-eye,
    * re-attaching tie-down straps,
    * releasing bungs to drain water.

Check the boat is seated securely on the trailer before the trailer is moved away from the ramp.

17. Boat and Motor Wash-Down. Students should be shown how to attach motor flushing 'ears' then lower the motor to the down position. Water supply should be applied to the ears and the engine run for a few minutes. The tell-tail should be discussed, and then the whole boat washed down. Washing the hull and removal of salt should be discussed. Particular attention should be given to washing the parts of the trailer that were submerged in salt water, especially the wheel hubs and axle.

Schedule (estimated time-frame)

9.00 am	Boat and students arrive at the ramp.
9.00-9.30 am	Launch discussion then launching the boat.
9.30 am	First student driver group departs, and Lifejacket and Dinghy drill begins. This drill will take about 1.5 hours depending on the size of the group.
11.00-12.30pm	Boating Officer 'safe boating' presentation (about 1.5 hour with breaks).
12.30 pm	Lunch (variable).
1.00 pm	Small outboards and anchoring.
2.00-2.30 pm	Boat returned to the trailer and secured.
2.30 pm	Boat, motor and trailer washed down by students. Motor flushing conducted and discussed.

Boating Safety Officer – suggested running order

The following is a suggested running order, and should be discussed with the BSO prior to the day.

1. A brief description of their own background history, and their career progression into their current position.

2. What they do day to day and the areas (regions) they cover:
    a. Responsibilities
    b. Compliance work and patrol duties
    c. Types of boats used to carry out their duties
    d. Abilities and powers – e.g. boarding vessels, RBTs, etc
    e. Who they work with e.g. Water Police.

3. Provide advice on how to become a BSO:
    a. Gain as much experience as possible, working part time or casual.
    b. Hints and tips on getting into the marine industry: e.g. Get resume up to date and approach local businesses
    c. Discuss relevant training and qualifications.

4. Differences between PWC and GBL.

5. Discuss the Boating Handbook and provide a copy to each student. Focus on safety aspects such as:
    a. Navigation rules and lights
    b. Lifejacket regulations

6. Knots and lines:
    a. What type of knots to use, when and why
    b. Each student to practice tying different types of knots.

7. Question and answer session. This can also be used as a quick-fire 'pop quiz'.

Guidance in completing the Management Plan

Hazard Identification

The following may assist with identifying hazards relating to activities at each stage of an excursion. Consider what could go wrong, that is, the potential injuries or illnesses that could occur. Hazards are the sources of these potential injuries or illnesses.

Travel – Consider aspects of travel that may present a hazard such as walking to and from the train, crossing the road, transport to the venue

Venue – Consider aspects of the excursion venue that may present a hazard such as location near water, cliffs, crowds, slippery floors

Excursion Program Activity – Consider the activities of the excursion program that may present a hazard such as hazards of bushwalking, collecting leaves, observing animals, swimming, singing at an eisteddfod, climbing

Equipment – Consider any equipment that may present a hazard such as sporting equipment, high risk equipment at the venue

Environment – Consider aspects of the environment that may present a hazard such as weather conditions, natural hazards such as bushfires, floods or storms, the nature of the terrain, plants and animals

People – Consider aspects of people that may present a hazard such as poor behaviour, the nature of participants such as maturity, age and skill, child protection issues, medical conditions or disabilities

Accommodation – Consider aspects of accommodation that may present a hazard such as insufficient supervision, standard of accommodation and amenities, meal menus and allergies, security and child protection issues

Other – Consider other hazards related to specific excursions.

Risk Assessment

Risk Assessment Matrix				
How serious could the injury be?	***How likely is it to be that serious?***			
	very likely	likely	unlikely	very unlikely
Death or permanent disability	1	1	2	3
Long term illness or serious injury	1	2	3	4
Medical attention and several days off	2	3	4	5
First aid needed	3	4	5	6

Severity – is a measure of an injury, illness or disease occurring. When assessing severity, the most severe category that would be most reasonably expected should be selected.	**Likelihood** – is defined as the potential that an accident will happen that may cause injury or harm to a person. When making assessment of likelihood, you must establish which of the categories most closely describes the probability of the hazardous incident occurring.

Legend

1 and 2 Extreme risk; consider elimination of the activity. Otherwise determine controls that are reasonably practicable to minimise the risk.

3 and 4 Moderate risk; determine controls that are reasonably practicable to minimise the risk

5 and 6 Low risk; manage by routine procedures.

Elimination or Control Measures

Hierarchy of Controls

Eliminate the risk, or if this is not reasonably practicable, control the risk to the fullest extent possible by using the following hierarchy of controls.

Eliminate the hazard: Remove the hazard. Change the activity or stop using it e.g. do not undertake a particular high risk activity such as abseiling in high wind; do not use high risk equipment.

Substitute the hazard: Replace the activity, material, or equipment with a less hazardous one e.g. choose an easier bushwalk.

Isolate the hazard: Isolate the hazard from the person at risk; isolate through distance e.g. select a lunch location well away from the water; check if a coastal walk has fencing.

Use engineering controls: Consider hiring coaches with seatbelts and ensure these are worn if available

Use administrative controls: Establish procedures and safe practices e.g. supervision of students, clear rules, instruction in safe methods, training of staff, volunteers and students in the excursion activities or in the use of equipment and qualifications of instructors.

Use personal protective equipment: Use appropriately designed and properly fitted equipment such as safety goggles, hats and sunscreen, helmets, in conjunction with other control measures identified from above.

Example

Menai High School Excursion Risk Management Plan

Description of excursion: ……Boating…….
……...
Location of excursion: …RMYC – Port Hacking……..
……...
Date(s) of excursion: …./…./…. or …./…./…. to …./…./…. (inc.)

Group/class: Oceans Alive…*Number in group/class*: …….
Name of excursion coordinator:……G McNeill……..
Contact number:……9543 7000 (School)……
Accompanying staff, parents, caregivers, volunteers: ……
……..

Activity	Hazard Identification Type/Cause	Risk Assessment Use matrix	Elimination or Control Measures	Who	When
Bus transport (if required) Staff vehicle	Other vehicles – risk of collision	4	Professional bus driver. Obey all road rules, traffic signs and speed limits enroute and at site.	Veolia	When travelling to and from site
Disembark from bus and walk to venue (and return)	Uneven ground – possibility of tripping	6	Make staff and students aware of uneven ground	Garbutt/McNeill/Loxley	Before walking to and from venue
Other Transport – Train	Getting on and off train	6	Direct students to be cautious on the platform as well as moving onto and off the train	Garbutt/McNeill/Loxley	When arriving at the station
Waling to and from the venue if train transport is used as well as on the water	Sunburn	6	Direct students/staff to apply UV protection cream and wear hats	Garbutt/McNeill/Loxley	Before excursion
Walking to and from venue as well as on the water	Glare	6	Recommend wearing sunglasses	Garbutt/McNeill/Loxley	Before excursion
Walking to and from venue as well as on the water	Dehydration – possibility of heat stroke	6	Remind students/staff to bring fluids and re-hydrate over the course of the day	Garbutt/McNeill/Loxley	On day and prior to excursion
			Continued over page		

Venue and safety information reviewed and attached: **Yes / No**
Plan prepared by:……R Garbutt/G McNeill…… *Date*: ./ ./12
Prepared in consultation with:……..
Communicated to: ……

Signature of Principal:…… Date:…./…./…. **N.B. Principal *must* sign prior to excursion.**

Monitor and Review Were the controls effective? Yes / No Were all those involved in the excursion aware of the controls? Yes / No Were any new hazards identified? Yes / No Signature:…… Review date:……../……./…….	What further action is required for future excursions? ☐ **No action required. or:** …… …… …… …… ……	**By whom** …… …… …… …… ……	**Date** …./…../….. …./…../….. …./…../….. …./…../….. ..../…../…..

Activity	**Hazard Identification** Type/Cause	**Risk Assessment** Use matrix	**Elimination or Control Measures**	**Who**	**When**
			(continued)		
	Rocks, waves	6	Have students assess surroundings and avoid slippery rocks. Enter at safest point.	Garbutt/McNeill/Loxley	Before entering water
Entering water/simulated capsize of dinghy	Unseen objects in shallow water – could hit and injure head or body	6	Direct students not to: dive or jump from wharf or marina area; be cautious on slippery ramp and sandy beach front; roll dinghy in designated area of marina	Garbutt/McNeill/Loxley	Before entering water
				Garbutt/McNeill/Loxley	All day
Boating/Dinghy capsize	Possible drowning	4	Make sure all students have completed swim test prior to excursion. Remind students and monitor safe boating practices. Supervision by qualified instructors. Recall and abide by Menai High Boating Policy.	Garbutt/McNeill/Loxley	Before water activities
				Garbutt/McNeill/Loxley	Before walking to beach
Controlling of students	Students could engage in unsafe behaviour or be left behind after excursion	6	Head counts and roll calls plus safety reminders throughout the day	Garbutt/McNeill/Loxley	All day
Anaphylaxis monitoring	2 students. Severe allergic reactions	6	Epi-pens must be carried. Health management plans taken to excursion	Garbutt/McNeill/Loxley	All day

Swim Test Record

A record must be completed for each student. Templates are provided for your use.

Swim Test Record				
Event Name:				
Event Date:				
Event Venue:				
Swim Test(200m) ability; Good, Average, Poor	**Given Name**	**Family Name**	**School**	**Signature**

The above students have completed the required swim test.

Signed_____

Principal/Designated Marine Teacher

Daily Report Sheet

For report purposes, a Daily Report Sheet must be completed and returned to BIA within one week of your Boat Smart day. Please keep a copy for your own records. Templates are provided for your use.

Example

CORE SCHOOL	Menai High School
SCHOOLS ATTENDING AND AGE RANGES	Gymea High School, yr 11 Ages 16-17
STUDENT BREAKDOWN NUMBERS/GENDER	2 girls, 9 boys 2 staff
WEATHER	Sunny, southerly (gusty), high tide morning
BOAT REPORT/PROBLEMS	None
PARENTS WITH BOATS	2
STUDENTS WITH LICENCE	None
REPORT COMPLETED BY (print and sign name)	G.McNeill
DATE COMPLETED	02/11/2012

Send completed sheet to:

* Fax: (02) 9439 3983
* Email: Corrina@bia.org.au

Letters to Parents

When the Boat Smart day has been completed, send a letter to the parents reporting on the day.

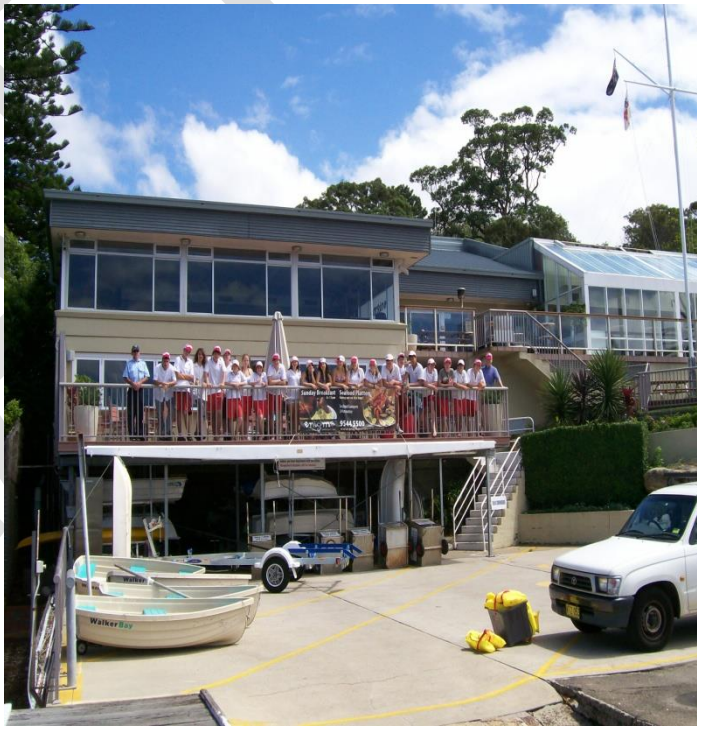
Example

Dear Parent/Caregiver,

Menai High conducted its first 'Boat Smart' day on Wednesday 3rd March, 2010 at the Royal Motor Yacht Club Port Hacking. Students had a great day with fine weather assisting their boating activities including driving the Menai School boat, simulated capsize, and rowing races.

We would like to extend our thanks to the RMYC Port Hacking for the use of their facilities which are first class. The RMYC is very supportive of our 'Boat Smart' program along with our other sponsors Hunts Marine, Boating Industry Association and the NSW Maritime.

Parents are invited to observe the boating activities and the wonderful facilities of the club on any of our boating days.



G McNEILL
Marine Co-ordinator

R GARBUTT
Head Teacher, Science

E McNALLY
Principal

Information letter re first boat smart day 2010 g mcneill.science.network.sm