

Personal Watercraft Safety Course for Boy Scouts

Lesson Plans

This syllabus is designed to be a guideline for local councils intending to implement a Personal Watercraft Program. This is a compilation of three years of experience and best practices. Changes are made regularly to improve the delivery of skills to the participants.

Each section is designed to take place in a 90- to 120-minute period. The time spent on each section depends greatly on the skill retention of the participants.

All participants should have completed the boater education certification for their state.

Participants in this program should have the Boater Education Certification card with them when they check in at the beginning of the program or the course for certification should be a part of the program instruction.

Resource Required for all Participants to Use—“*The Handbook of Personal Watercraft Basics*” (Item #0486):

The resource for participation in this course is purchased ONLY through the National Council, Boy Scouts of America, Outdoor Programs Team.

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Section 1

Roster Check

- Make sure all participants in the PWC course are present.
- Ensure that Scouts have a current health and medical assessment.
- All participants must be BSA swimmers.
- Collect Parental Permission and Hold Harmless agreements.
- Review individual Scouts' Boater's Education Certification.
- Administer Boater's Education if necessary.

First Aid Overview

- Show that you know first aid for injuries or illnesses that could occur while participating in water sports, including hypothermia, heat exhaustion, heatstroke, dehydration, sunburn, broken arm/leg, head injuries, and abdominal injuries.
- Identify the conditions that must exist before performing CPR on a person. Explain how such conditions are recognized.
- Demonstrate proper technique for performing CPR using a training device approved by your counselor.

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Section 2

Safety Introduction

Cover the following rules, and ensure that the participants understand them.

-You must follow all laws regarding the operation of a PWC as outlined in the Boater's Education Certification Course. Refer to pages 28-45 in *The Handbook of Personal Watercraft Basics*.

-You will ride in our defined operation area. (The area may change from day to day, based on the activities we will be doing. Do not leave that area unless otherwise instructed.)

-Do not make excessively sharp turns at high speeds. (This is to limit the potential of throwing a rider off the PWC. Do not try to "stand the PWC on its nose" or turn so hard that you flip the PWC.) Refer to pages 14-15 and 38-39 in *The Handbook of Personal Watercraft Basics*.

-Do not flip the PWCs. (Not only is it dangerous, but it can cause engine and maintenance problems. If you flip the PWC, you will be removed from the class. NO EXCEPTIONS!) Refer to page 14 in *The Handbook of Personal Watercraft Basics*.

-There is no negligent or reckless operation permitted. (If you are operating a PWC recklessly, you are less likely to pay attention to your surroundings and prevent the endangerment of life, limb, or property of another person.) Refer to pages 14-15 and 38-39 in *The Handbook of Personal Watercraft Basics*.

-You need to pay attention to me, the instructor. (I will need to be able to communicate effectively with you at various times throughout the week. I ask that you be respectful and listen up because what I'm telling you is valuable information.)

-As outlined in Boater's Education Certification, you need to obey all regulatory markers. (There are "no wake" markers because of the amount of boat traffic we produce and to prevent property damage and shore erosion due to boat wakes.) Refer to pages 12, 14-15, 23, 26, and 38 in *The Handbook of Personal Watercraft Basics*.

-Always, always, always wear a life jacket. (You will not ride without one.) Refer to pages 30-31 in *The Handbook of Personal Watercraft Basics*.

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-We operate within the buddy system in this class. (There are buddies on PWCs and another PWC as your buddy boat.)

-Maintain safe distances. (Remember that we operate at idle speed if we are within 50 feet of land, docks, swimmers, and other boats on the water.) Refer to pages 12 and 38 in *The Handbook of Personal Watercraft Basics*.

-Stay seated at all times. (There is no reason to stand when you are riding the PWC. The only time we will stand on a PWC is when we change positions out on the water.)

-When in doubt, take your hand off the throttle. (If you don't know what to do in a particular situation, take your hand off the throttle and slow down so you have more time to think.) Refer to page 10 in *The Handbook of Personal Watercraft Basics*.

-Stay with the boat. (If for any reason you are ejected from the PWC and cannot re-board, stay with the boat. Shore is always farther away than it looks, and you are more visible next to your PWC than you are alone in the water.)

-Let the instructor come to you if you have a problem on the water. (Instructors are more adept at the operation of the PWCs, and it is safer from them to approach the participants than for the participants to approach them.)

-Do not approach anyone in or on the water while using the PWC. Never ever approach a swimmer in the water. Refer to pages 12, 14-15, and 38-39 in *The Handbook of Personal Watercraft Basics*.

- If there is another boat in your area, follow the right of way rules. If you are unsure, give way to the approaching boat. (Remember the rules we covered in Boater's Education Certification.)

-Keep all limbs inside the runners at all times. (This prevents any unwanted and unnecessary injuries and also minimizes the chance of a rider falling in the water.)

-Keep hands on the steering wheel if you are the driver and on the handle if you are the passenger. (This is to help ensure you are safely mounted on the PWC.)

-Do not exit the PWC into the water unless instructed to do so. (When someone is re-boarding, it is important to make sure the PWC is not running.)

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Consequences

- Death or serious injury (80% of all accidents on PWCs result in serious injury or death. Does anyone want to die this week?)
- Removal from program or camp.

Breaking any of the rules above can result in one or more of the aforementioned consequences.

Instructor Hand Signals

- Back to dock (an open palm tapping the top of the head)
- Speed up (thumbs up with left hand)
- Slow down (thumbs down with left hand)
- Speed OK (OK sign with left hand)
- I'm coming to you (instructor sign only; left hand held high above the head)
- Left turn (left arm held straight out to the side with open palm)
- Right turn (left arm bent to 90 degrees pointing down with an open palm)
- Stop (right hand held at an upward 90-degree angle with a closed palm)
- Signal OK after fall (any hand held high in the air over the head with a thumbs up)

Go Over Parts of the PWC (Refer to page 4 in *The Handbook of Personal Watercraft Basics*.) All these things should be included in a pre-departure checklist (pre-ride check or inspection. (Refer to page 8 in *The Handbook of Personal Watercraft Basics*.)

- Port, starboard, bow, stern
- Seats, foot boards
- Steering mechanism
- Ignition, key system, and throttle control
- Engine compartment and jet nozzle, gas cap, dip stick
- Stern plugs

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- Re-entry ladder, if equipped
- Gear shifter
- Storage compartments

Safety Features (Refer to page 4 in *The Handbook of Personal Watercraft Basics*.)

-Safety switch (or Kill switch), safety lanyard (Demonstrate how to properly attach the key to your life vest.)

-Life jacket (Go over how to choose a properly sized life jacket and explain about impact rating.) Refer to pages 30-31 in *The Handbook of Personal Watercraft Basics*.

-Go kits:

-Dry bag (used to keep valuable safety equipment dry including your Boater's Education Certification Card and identification)

-Two-way radio (for emergency communication without sight of the base or waterfront)

-Emergency whistles (audible distress signal, stored up front with fire extinguisher). Refer to page 34 in *The Handbook of Personal Watercraft Basics*.

-Distress flag (visual distress signal). Refer to pages 34-35 in *The Handbook of Personal Watercraft Basics*.

-Fire extinguisher. (Refer to page 36 in *The Handbook of Personal Watercraft Basics*.)

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Section 3

****If Section 2 was administered on a previous day, it is necessary to review.****

Pre-Ride Check: please see the "Pre-Ride Check Sheet" on page 12.

(The instructor will demonstrate, and then the buddy pairs will inspect their machines.)

- Inspect the exterior of the PWC for any new or concerning damage.
- Check to ensure the handlebars turn the jet nozzle and the side fins.
- Check the gear shifter; make sure the reverse shield deploys.
- Lift up seat and perform a sniff test. Check for the profuse smell of gas fumes.
- Check engine compartment for water.
- Check the stern plugs.
- Check go kits for:
 - Bailer (mini bucket)
 - Boater's Education Certification cards and state IDs
 - Duct tape
 - Emergency whistle
 - First aid kits
 - Line or rope
 - Signal flags
 - Two-way radios (Make sure the batteries are charged.)
- Check forward compartment for:
 - PWC registration
 - Fire extinguisher (Make sure the gauge is in the green and the pin is in.)
 - Air horn (Shake to make sure it still has a charge.)
- Make sure all riders have a properly fitted life jacket.

Individual Orientation Rides

(After inspections are complete, the instructor will take out each participant individually for an orientation ride.)

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Orientation rides include the following:

- How to safely get on the PWC from the dock.
- How to start the PWC.
- How to safely leave the dock.
- At idle speed, execute a full right turn in forward.
- At idle speed, execute a full left turn in forward.
- At idle speed, execute a full right turn in reverse.
- At idle speed, execute a full left turn in reverse.
- Kill the engine by using the safety switch (safety lanyard).
- Switch places with the instructor.
- Exit the PWC into the water and re-board without assistance.
- Assist the instructor onto the PWC.
- Restart PWC and idle back to the dock.
- Safely move off the PWC and onto the dock.

What If You Roll? (You will be removed from class.) Refer to page 14 in *The Handbook of Personal Watercraft Basics*.

- If you feel at any time you are going to roll or fall off, just let go of the PWC. There is a chance it will right itself before overturning completely.
- If you do roll the PWC, swim to the stern of the machine and check to see if it needs to be righted in a certain direction.
- Once the PWC is upright re-board it, but DO NOT START THE ENGINE. Wait for a tow back to the dock so the engine compartment will be dried out.

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Section 4

Review the rules from Section 2.

Do a verbal review of the pre-ride check, and ask the Scouts to complete the inspection using the form.

Docking Practice

- The instructor will take out a PWC and demonstrate the docking procedure. (It is important to reinforce that the slower you go, the easier and safer it is to dock.)
- The instructor will then take each participant out individually and coach him until the instructor is comfortable with the Scout's docking ability.
- The instructor will place buddy pair on their PWC and let them idle around the cove and practice docking.
- Docking practice will be over when the instructor feels that all participants have a handle on the skill.

Competency Challenge Course Introduction

Please see page 13 for course setup.

- The purpose of the competency course is to allow the participants an opportunity to demonstrate that they possess the skills necessary to safely operate the PWCs.
- Participants will first follow the instructor and then navigate the course themselves.
- The first competency will be in the cove and will be conducted at idle speed.
- The participants are not allowed to hit any buoys while running the course.
- The rest of the class time will be spent running the course.

Pony Rides

- The instructors will take out each Scout individually on the lake. The Scouts will drive, and the instructor will be the passenger.
- This is sometimes the Scout's first opportunity to take the PWC up to a cruising speed.

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Section 5

Buddy pairs will meet down on the dock and conduct the pre-ride check.

Docking Practice;

- Daily review of docking skills. (See Section 4.)

Competency Challenge Course Part 2;

- Participants will follow the instructor first and then navigate the course themselves.
- The first competency will be in the cove and will be conducted at a moderate running speed.
- The participants are not allowed to hit any buoys while running the course.
- The class will run the course until the instructor is satisfied with each participant's ability.

Duckling Ride

- This is the portion of the class where the participants go onto the lake for the first time.
- The ride will be guided by the instructor who will set the course and speed.
- During this time the instructor evaluates the participants':
 - Ability to follow instruction in a less-controlled environment.
 - Handling of the PWC.
 - Willingness or unwillingness to stay within the constraints of the ride.

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Section 6

Buddy pairs will meet down on the dock and conduct the pre-ride check.

Docking Practice

-See Section 4.

Competency Challenge Review

-See Section 5.

Final Ride

-During this last ride the participants go out on the lake and have the opportunity to ride. They are observed by the instructor and must operate within the rules and guidelines set out originally on Sunday and Monday.

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Pre-Ride Check Sheet

PLEASE REPORT ANY ISSUES TO THE INSTRUCTOR

Is there any new or concerning damage to the PWC? Yes No

If yes, describe: _____

Inspect the exterior of the PWC for any new or concerning damage:

Handlebars turn the jet nozzle and the side fins? Yes No

Check gear shifter. Does the reverse shield deploy? Yes No

Lift up seat and perform a sniff test. Is there a profuse smell of gas fumes? Yes No

Water in the engine compartment? Yes No

Stern plugs in? Yes No

Is there a go kit? Yes No

-First aid kit Yes No

-Two-way radios with charged batteries Yes No

-Signal flags Yes No

-Emergency whistle Yes No

-Boater's Education Certification Cards and State IDs Yes No

-Bailer (mini bucket) Yes No

-Line or rope Yes No

-Duct tape Yes No

Is PWC registration on board? Yes No

Fire extinguisher? Yes No

-Pin is in? Yes No

-Charge gauge is in the green? Yes No

Air horn? Yes No

-Does it still have a charge? Yes No

All Riders have a properly fitted life jacket? Yes No

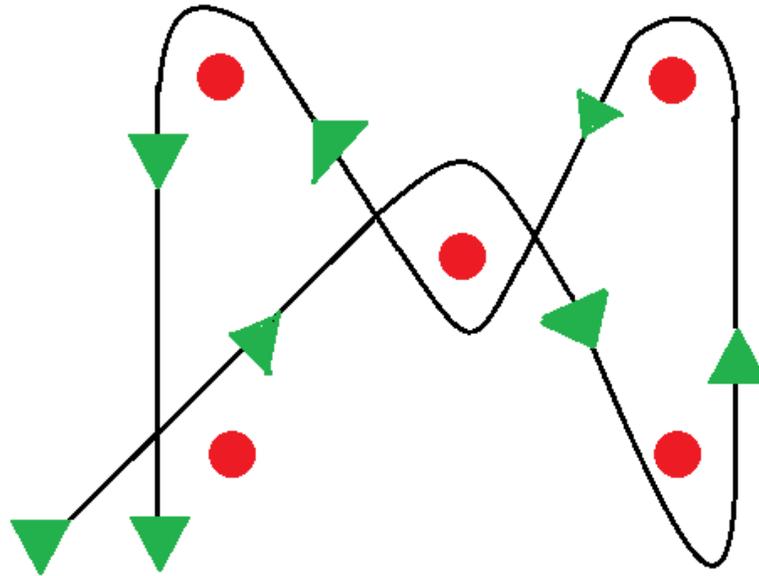
Comments _____

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Competency Challenge Course

Below is a diagram of the course and a suggested patterning for running it.



The purpose of this exercise is to build the Scouts' competency and level of comfort in the handling of a personal watercraft. The exercise is designed to be run first at idle speed and then at a moderate running speed, 15-20 mph.

The course is set out as above with five buoys. Water ski course buoys have worked the best and will last the longest, however, anything that floats and is easily visible will work. When operating at idle speed, the buoys can be set relatively close together, 50 feet or so. When operating over idle speed 300 feet is recommended.

It is important not to time this activity! Timing will cause the participants to rush and make poor decisions.

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While Scouts are running the course, there should be locations that the instructor designates where Scouts are required to come to a complete stop, approach a buoy as if it is a person in the water, and exit and reboard the PWC.