

Level 1 Skills // Science of Sailing

Student: _____

<p>Red Safety</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Identify safety equipment at PPSC and onboard Sonars (first aid kit, tow line, anchor & rode, distress flag) <input type="checkbox"/> Depower by luffing <input type="checkbox"/> Full stop by luffing <input type="checkbox"/> Identify three ways to find local weather <input type="checkbox"/> Properly fill out a float plan <input type="checkbox"/> Properly complete a radio check <input type="checkbox"/> Demonstrate how to properly board a boat <input type="checkbox"/> Describe personal preparation (clothing, shoes, water, sun protection) <input type="checkbox"/> Describe and demonstrate safe dock behavior (no running, careful on corners, no horseplay)
<p>Orange Navigation</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Identify cardinal directions on land and underway <input type="checkbox"/> Identify the main shipping channel inner harbor <input type="checkbox"/> Identify the delineation between wake and no wake zone inner harbor <input type="checkbox"/> Explain rights of way between different vessels (1/disabled vessel, 2/difficult to maneuver (ie barge), 3/restriction by draft, 4/commercial vessel, 5/sailboat, 6/powerboat)
<p>Yellow Marlinspike Seamanship</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Demonstrate cleat hitch <input type="checkbox"/> Demonstrate coil <input type="checkbox"/> Demonstrate figure-eight <input type="checkbox"/> Identify halyards and their purpose <input type="checkbox"/> Identify sheets and their purpose <input type="checkbox"/> Identify bow and stern lines and their purpose <input type="checkbox"/> Rig and derig mainsail and jib unaided
<p>Green Marine Science</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Identify and describe tides and tide cycle (two ways to identify tide) <input type="checkbox"/> Identify and describe wind direction and velocity (three ways to identify wind direction)
<p>Blue Sailing Skills</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Adjust sail trim following change of course <input type="checkbox"/> Get out of irons on a starboard tack, get out of irons on a port tack <input type="checkbox"/> Head up on command, bear off on command <input type="checkbox"/> Tack (sail close hauled, check surroundings for safety, notify crew by saying 'ready to tack' or 'ready about', head up and say 'tacking' or 'hard to lee', switch sides staying faced forward, direct crew to switch jib while in the wind, end tack on close hauled course) <input type="checkbox"/> Explain difference between tacking and jibing
<p>Purple Terminology & Theory</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Identify basic points of sail (upwind, across the wind, downwind) <input type="checkbox"/> Identify boat parts on a diagram (Bow, port, starboard, stern, deck, cabin, cockpit, companionway, hull, transom, rudder, tiller, keel, mast, boom, mainsail, jib)
<p>Black Leadership</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Communicating effectively - teach another student the figure eight knot. <input type="checkbox"/> Listening effectively - while at the helm, have the crew decide the course and direct the boat.

Level 2 Skills // Science of Sailing

Student: _____

<p>Red Safety</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Perform an overboard recovery using the figure-8 method <input type="checkbox"/> Describe appropriate times to hail the USCG and the difference between using "Mayday", "Pan-Pan" or "Sécurité" <input type="checkbox"/> Identify signs of heat exhaustion and treatment <input type="checkbox"/> Identify signs of heat stroke and treatment <input type="checkbox"/> Identify signs of hypothermia and treatment
<p>Orange Navigation</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Identify three navigation aids in the harbor <input type="checkbox"/> Describe the difference between a light, lighted buoy, can, nun, and daymark and identify each on a chart <input type="checkbox"/> Identify depths and hazards of various places on a chart (ie Castle Island, Governor's Flats, Lower Middle, Sculpin Ledge) <input type="checkbox"/> Identify the small boat channel, big boat channel, and president's roads on a chart
<p>Yellow Marlinspike Seamanship</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Demonstrate clove hitch <input type="checkbox"/> Demonstrate barrel knot <input type="checkbox"/> Demonstrate square knot <input type="checkbox"/> Demonstrate a round turn with half hitches <input type="checkbox"/> Heave a coiled line at least 30 feet <input type="checkbox"/> Identify boom vang and its purpose <input type="checkbox"/> Identify outhaul and its purpose <input type="checkbox"/> Identify reefing line and its purpose <input type="checkbox"/> Identify traveler and its purpose
<p>Green Marine Science</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Describe the greenhouse effect and the coastal impacts of rising sea level <input type="checkbox"/> Identify five animals native to Boston Harbor <input type="checkbox"/> Demonstrate ability to identify weather on a radar
<p>Blue Sailing Skills</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Demonstrate ability to heave-to <input type="checkbox"/> Jibe (sail downwind, sails sheeted out, notify crew "ready to jibe", sheet in for controlled jibe, "jibing" or "jibe ho", stern crosses the wind, sheet out mainsail, remain on downwind course) <input type="checkbox"/> Sail downwind wing on wing, both at the tiller and at the jib sheet <input type="checkbox"/> Dock safely in east or west wind <input type="checkbox"/> Reef at the dock and underway with the assistance of crew <input type="checkbox"/> Sail a figure-8 course repeatedly while maintaining proper sail trim
<p>Purple Terminology & Theory</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Identify all points of sail (irons, close hauled, close reach, beam reach, broad reach, run) on a diagram and while underway <input type="checkbox"/> Describe boat dynamics, Sonar design, why a Sonar doesn't capsize <input type="checkbox"/> Identify rig and sail parts on a diagram (head, foot, luff, clew, leech, tack, hanks, slot, bolt rope, track, gooseneck, shackle, battens, telltales, shrouds, spreaders, forestay, backstay)
<p>Black Leadership</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Follow-through - Set a simple, measurable goal for yourself at the beginning of Level 2 (not sailing-related), and accomplish it. <input type="checkbox"/> Interpersonal leadership - direct the rest of the crew through rigging and derigging the boat.

Level 3 Skills // Science of Sailing

Student: _____

<p>Red Safety</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Perform an overboard recovery singlehanded <input type="checkbox"/> Reef underway single handed <input type="checkbox"/> Anchor single handed, identify what conditions warrant emergency anchoring (squalls, loss of boat control/broken equipment, injured crew) <input type="checkbox"/> Identify proper procedure for broken forestay, backstay, shrouds
<p>Orange Navigation</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Chart and sail a course to either Peddocks, Georges, or Lovells Island <input type="checkbox"/> Describe methods for ungrounding a keelboat <input type="checkbox"/> Use ley lines to sail an upwind course <input type="checkbox"/> Describe navigation rules between sailboats under sail power (starboard over port tack, leeward over windward vessel, overtaken over overtaking vessel, meaning of "stand on" and "give way") <input type="checkbox"/> Describe impacts of ebbing tide and flooding tide on island trips
<p>Yellow Marlinspike Seamanship</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Demonstrate bowline <input type="checkbox"/> Demonstrate sheet bend <input type="checkbox"/> Describe appropriate anchor scope based on tide and depth <input type="checkbox"/> Set up a tow line properly
<p>Green Marine Science</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Identify four different cloud types and their indication of likely weather <input type="checkbox"/> Describe thermal wind and its dynamics <input type="checkbox"/> Present to a group of peers on a climate related topic (acidification of the ocean, plastics in the ocean, rising sea level, etc)
<p>Blue Sailing Skills</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Participate in Thursday Night Racing <input type="checkbox"/> Right a capsized dinghy (FJ or 420) <input type="checkbox"/> Launch and dock singlehanded in southerly wind <input type="checkbox"/> Sail safely by the lee for 5 minutes <input type="checkbox"/> Consistently understand wind direction, the boat's relationship to the wind, and use proper sail trim while at the helm <input type="checkbox"/> Skipper in winds of 20 MPH or higher <input type="checkbox"/> Lower and raise mainsail and jib underway <input type="checkbox"/> Sail backwards around a mark
<p>Purple Terminology & Theory</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Describe difference between true and apparent wind and identify both underway <input type="checkbox"/> Depict force of jib, mainsail, keel, and rudder (and resulting boat direction) upwind, across the wind, and downwind <input type="checkbox"/> Identify 5 different rig types (cutter, yawl, ketch, schooner, sloop, cat, gaff, multihull)
<p>Black Leadership</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Trustworthiness – demonstrate safe behavior on the boat and on the dock as an example for your peers <input type="checkbox"/> Motivating – inspire your crew during a difficult task <input type="checkbox"/> Empathy – demonstrate understanding for different backgrounds and perspectives <input type="checkbox"/> Decisiveness – make a tough decision on the water