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# Kayaking BSA

Kayaking BSA provides an introduction to kayaking skills and safety procedures and serves as a program opportunity for Boy Scout, Varsity, and Venturing units in camp or out. Mastery of Kayaking BSA skills is a first critical step towards satisfying Safety Afloat guidelines for safe kayak excursions.

## Safety Afloat

Accidents arise from similar situations for all human-powered craft, including kayaks. A lack of understanding, skill, or judgment can combine with environmental factors such as cold water, river currents, or offshore wind to put a person in jeopardy. It is no surprise that fewer accidents occur when boaters are properly trained and equipped. Simply wearing a personal flotation device (PFD) would prevent many boating tragedies. Be prepared is always sound advice. Scouting has a set of guidelines, called Safety Afloat that helps you determine your state of preparedness. You may remember Safety Afloat from your First Class rank requirements or from boating merit badges. The *Boy Scout Handbook* has an abbreviated version of the nine points. The *Guide to Safe Scouting* has the entire text.

Below is an adaptation of Safety Afloat specific to kayaking. It is provided merely to give additional information specific to kayaking, and does not replace the official wording of BSA's Safety Afloat. Before reviewing how Safety Afloat applies to kayaking, consider this seemingly strange fact about the sport: Accidents occur most often to two groups—those poorly trained, and those highly skilled. Whitewater kayaking has become an extreme sport, with experts continually challenging the limits of both boater and boat. Attempting a feat for which there is no margin for error is extremely dangerous and inappropriate as a Scouting activity. Kayaking can be a safe sport as long as you avoid situations where a simple mistake carries undue risk.

## Kayaking Safety

1. **Qualified supervision.** All kayaking activities must be supervised by a mature and conscientious adult who understands and knowingly accepts responsibility for the well-being and safety of the youth and who is experienced with the type of kayaks and activity under consideration. One adult supervisor is required for every 10 participants, with a minimum of two for any one group. All supervisors must complete Safety Afloat and Safe Swim Defense training, and at least one must be trained in cardiopulmonary resuscitation (CPR).
2. **Physical fitness.** Evidence of fitness for swimming activity is required in the form of a complete health history from a physician, parent, or guardian. The supervisor must know the physical condition of all participants and must adjust activities to avoid any potential risks associated with individual health concerns.
3. **Swimming ability.** Every participant must be classified as a "swimmer" to participate in training for Kayaking BSA or to paddle a solo kayak at a Scouting function.
4. **Personal flotation equipment.** Properly fitted U.S. Coast Guard-approved personal flotation devices (PFDs) must be worn by all persons engaged in kayaking.
5. **Buddy system.** Scouts never go on the water alone. Every person must have a buddy, and every craft on the water must have a "buddy boat."
6. **Skill proficiency.** All persons participating in activity afloat must be trained and practiced in craft-handling skills, safety, and emergency procedures. Kayaking BSA prepares Scouts and unit leaders for kayaking on flat water of a limited extent, such as that at a camp waterfront. Kayak trips require additional training in emergency equipment and communication. Ocean and river trips require additional kayaking skills for dealing with waves and moving water and the ability to "read" the environment. Units should not undertake excursions on class II whitewater before mastering the necessary skills on class I rivers.
7. **Planning.** Before Scouts go afloat, they develop a float plan detailing their route, time schedule, and contingency plans. The float plan considers all possible water and weather conditions and all applicable rules or regulations, and is shared with all who have an interest.
8. **Equipment.** All equipment must be suited to the craft, to the water conditions, and to the individual. Equipment must be in good repair and meet all applicable standards. Appropriate rescue equipment must be available. Whitewater kayaking requires the use of safety helmets. During treks, safety gear such as navigation aids, weather radios, individual signal devices, throw bags, first aid kits, spare paddles, and spare clothing should be carried in the kayaks or in support craft.
9. **Discipline.** Scouts must know and respect the rules, and always follow directions from the adults supervising the activity afloat. Rules and safety procedures should be reviewed before each group launch.

**What Next?**

Kayaking BSA should prepare you for safe kayaking fun on your local lake or enclosed bay, but there is more to learn, such as the classic Eskimo roll. You can find additional material on kayaking in the *Fieldbook*, no. 33200; the *Whitewater* merit badge pamphlet, 33405A; and the Venturing *Whitewater* pamphlet, no. 33465A. Also check out your local library and bookstore for books on kayaking. Each year, *Canoe & Kayak and Paddler* magazines publish buyers' guides, with the latest information on boats and gear. The American Canoe Association offers courses, from introduction of kayaking on flat water to advanced whitewater training.

## Types of Kayaks

Originally, kayaks were made of seal skins stretched over a wood and bone frame. The Inuit used them for hunting and fishing. Early recreational kayaks were made of cloth over wooden frames. Some models of folding kayaks still use fabric on a frame, but most modern kayaks are made of rigid plastics such as polyethylene, fiberglass, or Kevlar. Kayak designs vary according to usage and construction. A flat-water racer differs from a whitewater racer. Recreational kayaks are multi-purpose craft suitable for a variety of water conditions. Touring kayaks are larger and have storage capacity for camping gear. They are also known as sea kayaks, due to their use around ocean shorelines. They are long, up to 20 feet, to aid in tracking, and often have a rudder or skeg. Special play boats or squirt boats are used in heavy white water. They are short, down to 6 feet, for easy turning. Some play boat designs are adapted for surfing. Sit-on-tops do away with the traditional cockpit and deck in favor of a recessed well that is self-bailing. The paddler also sits on the floor of portable inflatable kayaks.

## Parts of the Kayak and Gear

[View diagram.](#)

## Paddles

The blades of kayak paddles are made in various designs, such as flat or spoon shaped. Many blades are set at an angle to one another, from 45 to 90 degrees. The offset angle allows the blade out of the water to be automatically feathered. Feathering reduces wind and splash resistance. A paddle with offset blades is controlled by firmly gripping the shaft with one hand, the right being the most common. The paddle should rotate freely in the loose grip of the opposite hand. Grasp the paddle with your hands just over shoulder-width apart. The knuckles of your control hand should be aligned with the edge of the blade nearest that hand. Some shafts are oval in cross-section to make hand placement easier and more comfortable. The grip of the control hand never changes. Practice rotating the blade 90 degrees by bending your wrist to raise your knuckles while also allowing your elbow to bend. Allow the paddle shaft to rotate freely in your other hand. This will turn the blade near your slip hand into the correct position for an efficient stroke. Correct paddle length depends both on your size and that of the boat. Your instructor will be able to suggest an appropriate size. You will then need to test the paddle in your kayak to be sure you can perform the strokes correctly.

## Basic Kayaking Skills

### Boarding

After checking on land that the kayak is a good fit, place the kayak in ankle deep water or at the edge of a low bank or dock. Use your paddle for balance by placing one end on the bank or bottom and the other just behind the cockpit coaming. Place one foot in the cockpit while sitting on the back deck. Most of your weight should be on the deck, not the paddle. Bring the other foot into the cockpit and then slide your legs into the boat. Reverse the process to exit.

### Capsize Drill

A capsize drill for a sit-on-top kayak is simple: Lean over, slide off, right the boat if necessary, and climb back on board. A capsize drill for a decked kayak is only a bit more complicated: Grasp the coaming behind your back and lean forward. Straighten your legs and push the kayak forward with your hands as you slide your feet out. You should fall out of the cockpit in a somersault. Try to maintain contact with the kayak as you bring your head above water to one side. Master this technique in a pool or calm water, before you need it, just in case you accidentally capsize while practicing your strokes.

### Aiding a Capsized Paddler

Your first concern if your buddy boat capsizes should be for the safety of the paddler, not his equipment. If the situation is urgent, due to injury or cold water, immediately tow the person to shore rather than chase after his gear. If your rear deck is large enough, the capsize victim may be able to balance on it. If your kayak is small, have the person hold onto the rear grab loop or toggle and float near the surface to reduce drag. If your buddy has hold of his boat, but needs help getting it ashore, it is possible to tow both the person and his kayak for short distances in calm water. Once on shore, you can empty the water from the swamped boat by each holding an end and rocking the up-side-down boat fore and aft to allow the water to drain from the cockpit.

## Kayak-Over-Kayak Assist

In calm water, it is often possible to help a capsized paddler back into his boat without returning to shore. If his boat has good flotation and he has a pump, you can hold his boat upright as he climbs back in and then bails the water out. It is also possible to empty the water from his boat before he re-boards: Form a 'T' with the boats and have the swimmer steady your kayak from the rear. Pull the swamped boat across your fore deck and gently rock it back and forth to drain it of water. Hold the boat next to your own, with your paddle braced across both craft, as your buddy climbs back aboard.

## Strokes

### Forward Stroke

Forward motion is achieved by stroking first on one side and then the other. Extend your lower arm toward the bow and push down with your upper arm to plant the blade in the water. Move the blade parallel to the side of the boat, ending the stroke when your lower hand reaches your hip. Your upper hand should be near eye level. Don't lean forward to extend your reach; rather, keep your back straight and rotate your torso. After the blade has left the water at the end of the stroke, rotate your paddle to set the angle for the blade on the other side. Power is transferred from your paddle to the kayak through your hips, knees, and feet. Efficient strokes require a properly fitted boat.

### Sweep Stroke

Forward strokes are done with the blade close to the boat pushing the water to the rear; turning strokes are most efficient with the blade moved away from the boat in a half-circle. The circle for a sweep stroke begins at the bow and turns the boat away from the paddling side. A reverse sweep begins at the stern and turns the boat toward the paddling side. Your elbow, hand, and paddle blade will be lower on the opposite side than they are for the forward stroke. Recovery is done by feathering the power blade just above the surface.

### Draw Stroke

The draw stroke moves the kayak sideways toward the paddle. Rotate your torso to face the side and reach out with your lower arm. Pull the blade towards you with the blade parallel to the boat. Keep the paddle as vertical as possible. Recover with the blade in the water by twisting the blade perpendicular to the boat and slipping it back to the draw position.

### Rudder

If you hold the blade vertical in the water at the rear of the kayak, you can use the blade as a rudder. You can turn the kayak by pushing the blade towards or away from the rear of the boat. It only works if the kayak is moving, but is handy in currents or to make minor course adjustments at the end of a forward stroke.

### Back Stroke

To stop the kayak, do a back stroke—the forward stroke in reverse. Continue to stroke backward on opposite sides to bring the kayak to a complete stop or to move it backward. Don't forget to look behind you when using the back stroke.

## Kayaking BSA

[Download an application form.](#)

## Requirements

1. Before fulfilling the following requirements, successfully complete the BSA swimmers test.
2. Do the following:
  - a. Describe various types of kayaks and how they differ in design, materials, and purpose.
  - b. Name the parts of the kayak you are using for this exercise.
  - c. Demonstrate how to choose an appropriately sized kayak paddle and how to position your hands.
3. Do the following:
  - a. Tell what precautions must be taken for a safe trip afloat.
  - b. Demonstrate how to select and properly fit a PFD.
  - c. Explain the importance of safety equipment such as PFDs, air bags, grab loops, and helmets.
4. Demonstrate your ability to aid yourself and others in the event of a capsize:
  - a. Capsize your kayak in water at least seven feet deep, perform a wet exit if necessary, and swim the boat to shore.
  - b. With assistance, if needed, ready the capsized craft for use.
  - c. Show how to approach a capsized paddler in your kayak and tow him to shore.
  - d. While upright in your kayak, right a capsized kayak, empty it of water, and assist the paddler aboard without returning to shore.
5. As a solo paddler, demonstrate the following:
  - a. Entering and launching a kayak from shore or dock
  - b. Landing or docking and exiting a kayak
  - c. Forward stroke
  - d. Sweep stroke
  - e. Reverse sweep
  - f. Draw stroke
  - g. Rudder stroke
  - h. Back stroke
6. As a solo paddler, do the following:
  - a. Paddle forward in a reasonably straight line.
  - b. Move the kayak sideways to the right and to the left.
  - c. Pivot 360 degrees to the right and left.
  - d. Stop the kayak.

## Notes to Counselor:

Any youth or adult who is registered with a troop or crew and completes the requirements is eligible for a patch and recognition card, available from the local council service center. Instruction for Kayaking BSA is to be conducted under safe conditions on calm water. Two to four hours in one or more sessions should suffice for instruction and practice. Paddle lengths and PFD sizes should be adequate to fit all participants. Feathered blades are preferred, but blades at the same angle are allowed. Counselors are expected to supplement the material in this flier with their own knowledge and resources. All counselors must be trained in Safety Afloat. Any person recognized as a kayak instructor by the American Canoe Association or equivalent organization may serve as a counselor for this award, with the approval of the local council. A person experienced in kayaking skills and safety may serve as a counselor in a BSA summer camp program under the direction of a currently certified Aquatics Instructor, BSA. Kayaking BSA is intended to provide Scouts and their leaders with an introductory experience to kayaking on lakes, ponds, slow-moving water, or calm ocean areas. Completion of this award should prepare the participants for more advanced courses designed to prepare the unit for touring and class I-II whitewater.

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