



Whitewater

Scouts BSA · Aquatics

Name

Started

Completed

Whitewater is about paddling moving water with skill and good judgment. You will learn to read rivers, use the right strokes, and handle rescues. All river time should be with experienced, trained paddlers.

Requirements

Every official requirement, in plain language. Check the official wording when you sign off (scouting.org/merit-badges/whitewater/). Tips and examples are ideas, not extra requirements.

1 Hazards, first aid, and safety rules

Tips for this section: Learn the main hazards of moving water and how Safety Afloat keeps your group safe.

- ☐ **1a** Explain to your counselor the main whitewater hazards (rocks, trees and branches in or across the water, hydraulics below ledges and low-head dams, high wind, cold air or water, lightning storms) and how to anticipate, prevent, reduce, and respond to each

- ☐ **1b** Review with your counselor how to prevent, spot, and treat hypothermia, cold-water shock, dehydration, heat illnesses, sunburn, blisters, cuts, bruises, sprains, strains, shoulder dislocation, head/neck/back injuries, and submersion injuries

- ☐ **1c** With your counselor, discuss the Safety Afloat policy and American Whitewater's safety guidelines, including wearing helmets and life jackets

2 Reading moving water

Tips for this section: Look at river photos or videos and point out features like eddies and waves.

Example for this section: Using river photos or a riverbank, point out an eddy, an upstream V that points to an obstacle, a downstream V that shows the clear path, standing waves, and a hole. Explain how you'd tilt or edge the boat, without leaning your body, when crossing an eddy line.

- ☐ **2a** Draw lines showing how water flows through these features: riffle, eddy with its eddy line, upstream V, downstream V, river bend, ledge, drop, shallows, horizon line, hydraulic, and current at varying depths

- ☐ **2b** Describe how waves are formed, including standing waves and wave trains

- ☐ **2c** Explain how to tilt or edge your boat without leaning your body in these two situations

- ☐ **2c1** Going into and coming out of an eddy

- ☐ **2c2** Ferrying in both the upstream and downstream directions

- ☐ **2d** Explain when, why, and how to scout a river from shore and from your boat, and when you should portage instead

- ☐ **3** Before starting requirements 4–12, earn the Canoeing merit badge if you'll use a canoe or the Kayaking merit badge if you'll use a kayak, then do one of the options below (choose 1 of 2 below)

Tip: Earn the Canoeing or Kayaking merit badge first, depending on the boat you'll paddle, since those skills are the base for whitewater.

- ☐ **3a** Canoe: demonstrate the Canoeing merit badge strokes and maneuvers well enough to satisfy your counselor

- ☐ **3b** Kayak: demonstrate the Kayaking merit badge strokes and maneuvers well enough to satisfy your counselor

4 Calm-water strokes: Choose 1 of 3

Tips for this section: Practice your strokes on a lake or calm river with an instructor until they feel natural.

4a Option A: tandem canoe

- ☐ **4a1** On calm water, from the bow, demonstrate these strokes: bow draw, cross bow draw, cross forward, bow pry, and sculling draw

- ☐ **4a2** On calm water, from the stern, demonstrate these strokes: stern pry, stern draw, sculling draw, and forward with stern pry

- ☐ **4a3** On calm water, demonstrate a high brace, a low brace, and a righting pry

4b Option B: solo canoe

- ☐ **4b1** On calm water, demonstrate these strokes: stern draw, stern pry, pry, bow draw, cross bow draw, cross forward, sculling draw, and forward with stern pry

- ☐ **4b2** On calm water, demonstrate a high brace, a low brace, and a righting pry

4c Option C: solo kayak

- ☐ **4c1** On calm water, demonstrate the bow draw, rudder, and sculling draw

- ☐ **4c2** On calm water, demonstrate a high brace and a low brace

5 River difficulty

Tips for this section: Look up the river difficulty scale and check flow levels for a local river.

Example for this section: Explain the difficulty scale from Class I (easy, small waves) to Class II (straightforward rapids with clear channels) and up. Then look up a local river's flow level and explain how high water can make a rapid harder or more dangerous.

- ☐ **5a** Explain the International Scale of River Difficulty and use it to rate a stretch of river your counselor approves

- ☐ **5b** Point out the river features that led you to the class you gave it on the International Scale

- ☐ **5c** Discuss how changes in water flow can move a river into a different class, and how flow rate changes river features and hazards

- ☐ **6** Explain why communication is important on every whitewater outing, and show you can use the American Whitewater Universal River Signals by sight and by sound: Are you OK?, Stop, Help/emergency, Run river left, Run river right, and All clear, come ahead

Tip: Practice signals on land with your group before getting on the water.

Example: Practice the signals on land with your group, by sight and by whistle: are you OK, stop, help or emergency, run river left, run river right, and all clear. Make sure everyone uses the same signals before getting on the water.

7 Whitewater boats: Choose 1 of 2

Tips for this section: Compare canoes and kayaks at an outfitter and talk about how they're built for moving water.

- ☐ **7a** Canoe: describe the canoe types paddled on moving water and how they vary in design, materials, and purpose

- ☐ **7b** Kayak: describe the kayak types paddled on moving water and how they vary in design, materials, and purpose

- ☐ **8** Go over with your counselor the personal and group gear needed for a safe whitewater trip, and how and why each item is used

Tip: Lay out your personal and group gear before a trip and check it with your counselor.

Example: Lay out your personal gear: a properly fitted life jacket, helmet, shoes that stay on, clothes for cold water, and a whistle. Then go over group gear like throw ropes, a first-aid kit, a repair kit, and spare paddle.

- ☐ **9** Read a Class II stretch of river your counselor approves: describe the best lines and backup routes, show how the river's features can help you, and explain how to steer clear of its hazards

Tip: Stand on shore with an experienced paddler and talk through the best path down a stretch of river.

Example: Stand on shore with your counselor above a Class II rapid. Point out the obstacles, the clear tongue of water, the eddies where you could stop, and the line you'd choose. Explain your plan if you miss your line.

- ☐ **10** In moving water, wearing a proper life jacket and clothing suited to the weather and water, do these skills in an equipped whitewater tandem canoe, solo canoe, or solo kayak (in a tandem canoe, do them from both bow and stern)

Tip: Practice on easy moving water with a qualified instructor before trying harder sections.

- ☐ **10a** Launch and land

- ☐ **10b** Paddle forward in a straight line for at least 10 boat lengths

- ☐ **10c** Paddle backward in a straight line for at least 5 boat lengths

- ☐ **10d** Ferry upstream from each side of the river

- ☐ **10e** Ferry downstream from each side of the river

- ☐ **10f** Do an eddy turn from each side of an eddy

- ☐ **10g** Peel out from each side of an eddy

11 Rescue and river skills

Tips for this section: Practice rescues in a safe setting with an instructor, starting with throw ropes from shore.

- ☐ **11a** Explain and show your counselor how to self-rescue after capsizing in current, including a wet exit when needed

- ☐ **11b** Explain and show your counselor how to throw a rescue rope to a swimmer in whitewater

- ☐ **11c** Explain and show your counselor how to receive a throw rope when you are the swimmer

- ☐ **11d** Explain and show your counselor when a portage makes sense, and when and how to carry it out

- ☐ **11e** Explain and show your counselor the whitewater buddy system with at least 3 people in at least 3 boats

- ☐ **12** Go on one or more whitewater trips by canoe or kayak on Class I and/or Class II water, with at least 6 hours of total paddling; for each trip, do the following

Tip: Plan your trips with an experienced group and a qualified leader.

- ☐ **12a** Help write a trip plan covering the route (put-ins and takeouts), schedule, gear, safety precautions, and emergency procedures

- ☐ **12b** Find out the local rules and get permission ahead of time from landowners and land managers

- ☐ **12c** Explain what was done to follow the Safety Afloat policy and American Whitewater's safety guidelines

- ☐ **12d** Show how to keep personal and group gear dry and how to pack and secure the dry containers in the trip's boats, then carry out the plan with the other paddlers

- ☐ **12e** Tell your counselor how well your plans worked on each trip