



Whitewater

1. Do the following:
 - (a) Explain to your counselor the most likely hazards you may encounter while participating in whitewater activities and what you should do to anticipate, help prevent, mitigate, and respond to these hazards.
 - (b) Review with your counselor the prevention, symptoms, and first aid treatment for the following injuries or illnesses that could occur while participating in whitewater activities including cold-water shock; hypothermia; head, neck, and back injuries; heat-related illnesses; sunburn; dehydration; blisters; bruises; cuts; sprains and strains; shoulder dislocation; and submersion injuries.
 - (c) Discuss with your counselor the BSA Safety Afloat policy and the American Whitewater safety guidelines.
2. Do the following:
 - (a) Explain the following river features: upstream V, downstream V, riffle, eddy, eddy line, pillow, ledge, bend, shallows, current, drop, horizon line, wave, standing wave, wave train.
 - (b) Explain when, why, and how you should scout a river while ashore and while on the river.
3. Before doing requirements 4 through 12, earn the Canoeing merit badge if you will be using a canoe to earn this merit badge. If you will be using a kayak, earn the Kayaking merit badge. Then do the following:
 - (a) If you will be using a canoe to earn this merit badge, demonstrate strokes and maneuvers from the Canoeing merit badge to the satisfaction of your merit badge counselor.

OR

 - (b) If you will be using a kayak to earn this merit badge, demonstrate strokes and maneuvers from the Kayaking merit badge to the satisfaction of your merit badge counselor.
4. Do ONE of the following:
 - (a) If you are completing these requirements as a tandem canoeist, perform the following on calm water:
 - (1) Demonstrate the following strokes in the bow: cross forward, bow draw, cross bow draw, bow pry, Duffek, sculling draw, and sculling pushaway (reverse scull).
 - (2) Demonstrate the following strokes in the stern: stern draw, stern pry, sculling draw, sculling pushaway (reverse scull), and forward with stern pry.
 - (3) Demonstrate a high brace, low brace, and a righting pry.

OR

(b) If you are completing these requirements as a solo canoeist, perform the following on calm water:

- (1) Demonstrate the following strokes: cross forward, bow draw, cross bow draw, stern draw, pry, stern pry, Duffek, sculling draw, sculling push-away (reverse scull), and forward with stern pry.
- (2) Demonstrate a high brace, low brace, and righting pry.

OR

(c) If you are completing these requirements as a solo kayaker, perform the following on calm water:

- (1) Demonstrate the following strokes: Duffek, bow draw, rudder, and sculling draw.
- (2) Demonstrate a high brace and low brace.

5. Do the following:

- (a) Explain the International Scale of River Difficulty and apply the scale to the stretch of river approved by your counselor.
- (b) Identify the specific characteristics of the river that are factors in your classification according to the International Scale.
- (c) Discuss how the level of flow changes a river from one class to another and what effects different flow rates have on the features of a river and its hazards.

6. Explain the importance of communication during every whitewater outing. Demonstrate knowledge and ability to use the following American Whitewater Universal River Signals, both visual and auditory: “Stop,” “Are you OK?,” “Help/emergency,” “Run river right,” “Run river left,” and “All clear—come ahead.”

7. Do ONE of the following:

- (a) If completing this merit badge in a canoe, describe the various types of canoes used on moving water and how they differ in design, materials, and purpose.

OR

- (b) If completing this merit badge in a kayak, describe the various types of kayaks used on moving water and explain how they differ in design, materials, and purpose.

8. Discuss the personal and group equipment necessary for a safe whitewater outing and how and why it is used. Explain how to pack and protect these items.

9. Do the following:

- (a) Demonstrate your ability to read a Class II section of river approved by your counselor. Describe the most desirable paths or lines of travel as well as alternative routes and options. Point out how to use the existing water features to your advantage, and explain how to best avoid the hazards present.

(b) Wearing a proper life jacket and being appropriately dressed for the weather and water conditions, perform the following skills in moving water in a properly equipped whitewater craft of your choice (tandem canoe, solo canoe, or solo kayak). If a tandem canoe is used, the skills must be demonstrated from both the bow and stern positions.

- (1) Launch and land.
- (2) Paddle forward in a straight line.
- (3) Backpaddle.
- (4) Ferry upstream.
- (5) Ferry downstream.
- (6) Eddy turn.
- (7) Peel out.

10. Explain and demonstrate the following to your counselor:
 - (a) Self-rescue and procedures when capsized in moving water, including a wet exit if necessary
 - (b) Proper use of a throw rope to rescue a swimmer in whitewater
 - (c) Proper technique for receiving a throw rope as a swimmer
 - (d) Portaging—where portaging would be appropriate, and when and how to do it
 - (e) The whitewater buddy system using at least three persons and three craft
11. Discuss the use of inflatable rafts on moving water. In your discussion, explain the special safety precautions that should be taken when using an inflatable raft and the risks of “tubing” on moving water.
12. Participate in a whitewater trip using either a canoe or kayak on a Class I or Class II river. Help to prepare a written plan, specifying the route, schedule, equipment, safety precautions, and emergency procedures. Determine local rules and obtain permission from landowners and land managers in advance. Explain what steps you have taken to comply with BSA Safety Afloat and the American Whitewater safety guidelines. Execute the plan with others.

Whitewater Resources

Scouting Literature

Boy Scout Handbook; Fieldbook; Deck of First Aid; Emergency First Aid pocket guide; Be Prepared First Aid Book; Kayaking BSA Award application; Canoeing, Rowing, and Small-Boat Sailing merit badge pamphlets

Visit the Boy Scouts of America's official retail Web site (with your parent's permission) at <http://www.scoutstuff.org> for a complete listing of all merit badge pamphlets and other helpful Scouting materials and supplies.

Books

- Bennett, Jeff. *The Complete Whitewater Rafter*. International Marine/Ragged Mountain Press, 1996.
- . *The Essential Whitewater Kayaker*. International Marine/Ragged Mountain Press, 1999.
- Blaine, Mark. *Whitewater: The Thrill and Skill of Running the World's Great Rivers*. Black Dog and Leventhal Publishers, 2001.
- Bechdel, Les. *River Rescue: A Manual for Whitewater Safety*. Appalachian Mountain Club Books, 1997.
- Grant, Gordon. *Trailside Guide: Canoeing*. W. W. Norton & Company, 2003.
- Harrison, Dave. *Canoeing: The Complete Guide to Equipment and Technique*. Stackpole Books, 1996.
- Jackson, Eric. *Whitewater Paddling: Strokes & Concepts*. Stackpole Books, 1999.
- Krauzer, Steven M. *Trailside Guide: Kayaking*. W. W. Norton & Company, 2003.
- Mason, Bill. *Path of the Paddle: An Illustrated Guide to the Art of Canoeing* (revised and updated by Paul Mason). Firefly Books, 1999.
- Mason, Paul. *Thrill of the Paddle: The Art of Whitewater Canoeing*. Firefly Books, 1999.
- Nealy, William. *Kayak: A Manual of Technique*. Menasha Ridge Press, 1986.
- Ray, Slim. *The Canoe Handbook: Techniques for Mastering the Sport of Canoeing*. Stackpole Books, 1992.

Magazines

Canoe & Kayak

10526 NE 68th St., Suite 3
 Kirkland, WA 98033
 Telephone: 425-827-6363
 Web site: <http://www.canoeandkayak.com>

Paddler

12040 98th Ave. NE, Suite 205
 Kirkland, WA 98034
 Toll-free telephone: 425-814-4140
 Web site:
<http://www.paddlermagazine.com>

Organizations and Web Sites

American Canoe Association

7432 Alban Station Blvd., Suite B-232
 Springfield, VA 22150
 Telephone: 703-451-0141
 Web site: <http://www.acanet.org>

American Whitewater

P.O. Box 1540
 Cullowhee, NC 28723
 Toll-free telephone: 866-262-8429
 Web site:
<http://www.americanwhitewater.org>

USA Canoe/Kayak

301 S. Tryon St., Suite 1750
 Charlotte, NC 28282
 Telephone: 704-348-4330
 Web site: <http://www.usack.org>

United States Canoe Association

53 Ross Road
 Preston, CT 06365
 Web site: <http://www.uscanoe.com>

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