

Preparation for:

2nd Class Scout Rank Req 5a-d
1st Class Scout Rank Req 6a
Swimming Merit Badge



Aquanaut

1-2 Meetings or Webelos Camp

Takeaways

- Improving water safety knowledge
- Developing aquatics skills
- A Scout is obedient

Complete 1–4 and at least two others.

1. State the safety precautions you need to take before doing any water activity.
2. Discuss the importance of learning the skills you need to know before going boating.
3. Explain the meaning of “order of rescue” and demonstrate the reach and throw rescue techniques from land.
4. Attempt the BSA swimmer test.
5. Demonstrate the precautions you must take before attempting to dive headfirst into the water, and attempt a front surface dive.
6. Learn and demonstrate two of the following strokes: crawl, sidestroke, breaststroke, or elementary backstroke.
7. Invite a member or former member of a lifeguard team, rescue squad, the U.S. Coast Guard, U.S. Navy, or other armed forces branch who has had swimming and rescue training to your den meeting. Find out what training and other experiences this person has had.
8. Demonstrate how to correctly fasten a life jacket that is the right size for you. Jump into water over your head. Show how the life jacket helps keep your head above water by swimming 25 feet. Get out of the water, remove the life jacket and hang it where it will dry.
9. If you are a qualified swimmer, select a paddle of the proper size and paddle a canoe with an adult’s supervision.

Things you will need for this activity badge:

1. Access to a swimming pool or safe body of water, with one section that is 5 or more feet deep.
2. One or more personal floatation devices (life vests)
3. A rope with a floatation device (ring) on the end and a long pole.
4. Kick boards.

Non-Swimming Webelos

In my experience, Scouts will say they can swim, but when you put them in the water they can only dog-paddle. Ask them to do a backstroke, and they won't be able to stay afloat. In cases like this, and for scouts who can't swim, you can still do this adventure; just take precautions to keep them safe. The boys will all be able to swim using PFDs.

Swimming in Boy Scouts

It's required that all Scouts pass the BSA Swim test in order to achieve their First Class Rank. Therefore all boys who struggle with swimming should be encouraged to take lessons in order to pass this requirement when they are Boy Scouts.

Working with local swimming pools

Often, local swimming pools will be able to help you teach Aquanaut and will have an instructor (req. 8) who can come and work with your boys. Contact your local public swimming pools and/or recreation centers to see if they have Aquanaut instructors available.

Once you have made your appointment with your local pool, make certain to call one or two days before arriving to make certain the instructor will be there, and that everything is in place.

Safe Swim Defense Training

Prior to starting this activity, take the **Safe Swim Defense training online** at scouting.org.



Safety Precautions

BSA groups shall use Safe Swim Defense for all swimming activities. Adult leaders supervising a swimming activity



must have completed Safe Swim Defense training within the previous two years. Safe Swim Defense standards apply at backyard, hotel, apartment, and public pools; at established waterfront swim areas such as beaches at state parks and U.S. Army Corps of Engineers lakes; and at all temporary swimming areas such as a lake, river, or ocean. Safe Swim Defense does not apply to boating or water activities such as waterskiing or swamped boat drills that are covered by Safety Afloat guidelines. Safe Swim Defense applies to other nonswimming activities whenever participants enter water over knee deep or when submersion is likely.

Safe Swim Defense training may be obtained from the BSA Online Learning Center at

www.scouting.org, at council summer camps, and at other council and district training events. Confirmation of training is required on tour and activity plans for trips that involve swimming. Additional information on various swimming venues is provided in the Aquatics Supervision guide available from council service centers.

Rules of Safe Swim Defense

1. **Qualified Supervision**

All swimming activity must be supervised by a mature and conscientious adult age 21 or older who understands and knowingly accepts responsibility for the well-being and safety of those in his or her care, and who is trained in and committed to compliance with the eight points of BSA Safe Swim Defense.

2. **Personal Health Review**

A complete health history is required of all participants as evidence of fitness for swimming activities.

3. **Safe Area**

All swimming areas must be carefully inspected and prepared for safety prior to each activity. Water depth, quality, temperature, movement, and clarity are important considerations. Hazards must be eliminated or isolated by conspicuous markings and discussed with participants.

4. **Response Personnel (Lifeguards)**

Every swimming activity must be closely and continuously monitored by a trained rescue team on the alert for and ready to respond during emergencies. Professionally trained lifeguards satisfy this need when provided by a regulated facility or tour operator. When lifeguards are not provided by others, the adult supervisor must assign at least two rescue personnel, with additional numbers to maintain a ratio of one rescuer to every 10 participants.

5. **Lookout**

The lookout continuously monitors the conduct of the swim, identifies any departures from Safe Swim Defense guidelines, alerts rescue personnel as needed, and monitors the weather and environment. The lookout should have a clear view of the entire area but be close enough for easy verbal communication. The lookout must have a sound understanding of Safe Swim Defense but is not required to perform rescues. The adult supervisor may serve simultaneously as the lookout but must assign the task to someone else if engaged in activities that preclude focused observation.

6. **Ability Groups**

All youth and adult participants are designated as swimmers, beginners, or nonswimmers based on swimming ability confirmed by standardized BSA swim classification tests. Each group is assigned a specific swimming area with depths consistent with those abilities.

The nonswimmer area should be no more than waist to chest deep and should be enclosed by physical boundaries such as the shore, a pier, or lines. The enclosed beginner area should contain water of standing

depth and may extend to depths just over the head. The swimmer area may be up to 12 feet in depth in clear water and should be defined by floats or other markers.

7. **Buddy System**

Every participant is paired with another. Buddies stay together, monitor each other, and alert the safety team if either needs assistance or is missing. Buddies check into and out of the area together.

Buddies are normally in the same ability group and remain in their assigned area. If they are not of the same ability group, then they swim in the area assigned to the buddy with the lesser ability.

A buddy check reminds participants of their obligation to monitor their buddies and indicates how closely the buddies are keeping track of each other. Roughly every 10 minutes, or as needed to keep the buddies together, the lookout, or other person designated by the supervisor, gives an audible signal, such as a single whistle blast, and a call for "Buddies." Buddies are expected to raise each other's hand before completion of a slow, audible count to 10. Buddies that take longer to find each other should be reminded of their responsibility for the other's safety.

Once everyone has a buddy, a count is made by area and compared with the total number known to be in the water. After the count is confirmed, a signal is given to resume swimming.

8. **Discipline**

Rules are effective only when followed. All participants should know, understand, and respect the rules and procedures for safe swimming provided by Safe Swim Defense guidelines. Applicable rules should be discussed prior to the outing and reviewed for all participants at the water's edge just before the swimming activity begins. People are more likely to follow directions when they know the reasons for rules and procedures. Consistent, impartially applied rules supported by skill and good judgment provide stepping-stones to a safe, enjoyable outing.



Swimming Ability Groups

All youth and adult participants are designated by the Boy Scouts of America as **Swimmers**, **Beginners**, or **Nonswimmers** based on swimming ability confirmed by standardized BSA swim classification tests. Each group is assigned a specific swimming area with depths consistent with those abilities.

SWIMMERS

Swimmers can pass this test: Jump feet first into water over the head in depth. Level off and swim 75 yards in a strong manner using one or more of the following strokes: sidestroke, breaststroke, trudgen, or crawl; then swim 25 yards using an easy resting backstroke. The 100 yards must be completed in one swim without stops and must include at least one sharp turn. After completing the swim, rest by floating.

BEGINNERS

Beginners pass this test: Jump feet first into water over the head in depth, level off, and swim 25 feet on the surface. Stop, turn sharply, resume swimming and return to the starting place.

NONSWIMMERS

Anyone who has not completed either the beginner or swimmer tests is classified as a nonswimmer.

This can either be individuals who cannot complete the test, or who haven't taken the test. At Boy Scout Camps, those who have not taken the swim test to get a classification, are categorized as nonswimmers, and are not permitted to participate in any aquatic activities.

Boating Skills

BSA groups shall use Safety Afloat for all boating activities.

Adult leaders supervising activities afloat must have completed Safety Afloat training within the previous two years. Cub Scout activities afloat are limited to council or district events that do not include moving water or float trips (expeditions). Safety Afloat standards apply to the use of canoes, kayaks, rowboats, rafts, floating tubes, sailboats, motorboats (including waterskiing), and other small craft, but do not apply to transportation on large commercial vessels such as ferries and cruise ships.

Parasailing (being towed airborne behind a boat using a parachute), kitesurfing (using a wakeboard towed by a kite), and recreational use of personal watercraft (small sit-on-top motorboats propelled by water jets) are not authorized BSA activities.



Safety Afloat training may be obtained from the BSA Online Learning Center at www.scouting.org, at council summer camps, and at other council and district training events. Confirmation of training is required on tour and activity plans for trips that involve boating. Additional guidance on appropriate skill levels and training resources is provided in the Aquatics Supervision guide available from council service centers.

1. Qualified Supervision

All activity afloat must be supervised by a mature and conscientious adult age 21 or older who understands and knowingly accepts responsibility for the wellbeing and safety of those in his or her care and who is trained in and committed to compliance with the nine points of BSA Safety Afloat. That supervisor must be skilled in the safe operation of the craft for the specific activity, knowledgeable in accident prevention, and prepared for emergency situations. If the adult with Safety Afloat training lacks the necessary boat operating and safety skills, then he or she may serve as the supervisor only if assisted by other adults, camp staff personnel, or professional tour guides who have the appropriate skills. Additional leadership is provided in ratios of one trained adult, staff member, or guide per 10 participants. For Cub Scouts, the leadership ratio is one trained adult, staff member, or guide per five participants. At least one leader must be trained in first aid including CPR. Any swimming done in conjunction with the activity afloat must be supervised in accordance with BSA Safe Swim Defense standards. It is strongly recommended that all units have at least one adult or older youth member currently trained in BSA Aquatics Supervision: Paddle Craft Safety to assist in the planning and conduct of all activities afloat.

2. Personal Health Review

A complete health history is required of all participants as evidence of fitness for boating activities. Forms for minors must be signed by a parent or legal guardian. Participants should be asked to relate any recent incidents of illness or injury just prior to the activity. Supervision and protection should be adjusted to anticipate any potential risks associated with individual health conditions. For significant health conditions, the adult supervisor should require an examination by a physician and consult with parent, guardian, or caregiver for appropriate precautions.

3. Swimming Ability

Operation of any boat on a float trip is limited to youth and adults who have completed the BSA swimmer classification test. Swimmers must complete the following test, which should be administered annually.

Jump feetfirst into water over the head in depth. Level off and swim 75 yards in a strong manner using one or more of the following strokes: sidestroke, breaststroke, trudgen, or crawl; then swim 25 yards using an

easy, resting backstroke. The 100 yards must be completed in one swim without stops and must include at least one sharp turn. After completing the swim, rest by floating.

For activity afloat, those not classified as a swimmer are limited to multiperson craft during outings or float trips on calm water with little likelihood of capsizing or falling overboard. They may operate a fixed-seat rowboat or pedal boat accompanied by a buddy who is a swimmer. They may ride in a canoe or other paddle craft with an adult swimmer skilled in that craft as a buddy. They may ride as part of a group on a motorboat or sailboat operated by a skilled adult.

4. **Life Jackets**

Properly fitted U.S. Coast Guard–approved life jackets must be worn by all persons engaged in boating activity (rowing, canoeing, sailing, boardsailing, motorboating, waterskiing, rafting, tubing, and kayaking). Type III life jackets are recommended for general recreational use.

For vessels over 20 feet in length, life jackets need not be worn when participants are below deck or on deck when the qualified supervisor aboard the vessel determines that it is prudent to abide by less-restrictive state and federal regulations concerning the use and storage of life jackets, for example, when a cruising vessel with safety rails is at anchor. All participants not classified as swimmers must wear a life jacket when on deck underway.

Life jackets need not be worn when an activity falls under Safe Swim Defense guidelines—for example, when an inflated raft is used in a pool or when snorkeling from an anchored craft.

5. **Buddy System**

All participants in an activity afloat are paired as buddies who are always aware of each other's situation and prepared to sound an alarm and lend assistance immediately when needed. When several craft are used on a float trip, each boat on the water should have a "buddy boat." All buddy pairs must be accounted for at regular intervals during the activity and checked off the water by the qualified supervisor at the conclusion of the activity. Buddies either ride in the same boat or stay near each other in single-person craft.

6. **Skill Proficiency**

Everyone in an activity afloat must have sufficient knowledge and skill to participate safely. Passengers should know how their movement affects boat stability and have a basic understanding of self-rescue. Boat operators must meet government requirements, be able to maintain control of their craft, know how changes in the environment influence that control, and undertake activities only that are within their personal and group capabilities.

Content of training exercises should be appropriate for the age, size, and experience of the participants, and should cover basic skills on calm water of limited extent before proceeding to advanced skills involving current, waves, high winds, or extended distance. At a minimum, instructors for canoes and kayaks should be able to demonstrate the handling and rescue skills required for BSA Aquatics Supervision: Paddle Craft Safety. All instructors must have a least one assistant who can recognize and respond appropriately if the instructor's safety is compromised.

Anyone engaged in recreational boating using human-powered craft on flatwater ponds or controlled lake areas free of conflicting activities should be instructed in basic safety procedures prior to launch, and allowed to proceed after they have demonstrated the ability to control the boat adequately to return to shore at will.

Before a unit using human-powered craft controlled by youth embarks on a float trip or excursion that covers an extended distance or lasts longer than four hours, each participant should receive either a minimum of three hours training and supervised practice, or demonstrate proficiency in maneuvering the craft effectively over a 100-yard course and recovering from a capsize.

7. **Planning**

Proper planning is necessary to ensure a safe, enjoyable exercise afloat. All plans should include a scheduled itinerary, notification of appropriate parties, communication arrangements, contingencies in case of foul weather or equipment failure, and emergency response options.

Preparation. Any boating activity requires access to the proper equipment and transportation of gear and participants to the site. Determine what state and local regulations are applicable. Get permission to use or cross private property. Determine whether personal resources will be used or whether outfitters will supply equipment, food, and shuttle services. Lists of group and personal equipment and supplies must be compiled and checked. Even short trips require selecting a route, checking water levels, and determining alternative pull-out locations. Changes in water level, especially on moving water, may pose significant, variable safety concerns. Obtain current charts and information about the waterway and consult those who have traveled the route recently.

Float Plan. Complete the preparation by writing a detailed itinerary, or float plan, noting put-in and pullout locations and waypoints, along with the approximate time the group should arrive at each. Travel time should be estimated generously.

Notification. File the float plan with parents, the local council office if traveling on running water, and local authorities if appropriate. Assign a member of the unit committee to alert authorities if prearranged check-ins are overdue. Make sure everyone is promptly notified when the trip is concluded.

Weather. Check the weather forecast just before setting out, and keep an alert weather eye. Anticipate changes and bring all craft ashore when rough weather threatens. Wait at least 30 minutes before resuming activities after the last incidence of thunder or lightning.

Contingencies. Planning must identify possible emergencies and other circumstances that could force a change of plans. Develop alternative plans for each situation. Identify local emergency resources such as EMS systems, sheriff's departments, or ranger stations. Check your primary communication system, and identify backups, such as the nearest residence to a campsite. Cell phones and radios may lose coverage, run out of power, or suffer water damage.

8. **Equipment**

All craft must be suitable for the activity, be seaworthy, and float if capsized. All craft and equipment must meet regulatory standards, be properly sized, and be in good repair. Spares, repair materials, and emergency gear must be carried as appropriate. Life jackets and paddles must be sized to the participants. Properly designed and fitted helmets must be worn when running rapids rated above Class II. Emergency equipment such as throw bags, signal devices, flashlights, heat sources, first-aid kits, radios, and maps must be ready for use. Spare equipment, repair materials, extra food and water, and dry clothes should be appropriate for the activity. All gear should be stowed to prevent loss and water damage. For float trips with multiple craft, the number of craft should be sufficient to carry the party if a boat is disabled, and critical supplies should be divided among the craft.

9. **Discipline**

Rules are effective only when followed. All participants should know, understand, and respect the rules and procedures for safe boating activities provided by Safety Afloat guidelines. Applicable rules should be discussed prior to the outing and reviewed for all participants near the boarding area just before the activity afloat begins. People are more likely to follow directions when they know the reasons for rules and procedures. Consistent, impartially applied rules supported by skill and good judgment provide stepping-stones to a safe, enjoyable outing.

Order of Rescue

METHOD 1: Reach.

This method works well if the victim is near a dock or edge of a pool. But as simple as it sounds, reaching in can be risky.

Ensure that you're in a safe place and not at risk of being pulled in by the victim. A solid stance or lying flat on the ground are two ways to brace. A water-immersion victim will do anything to get out, including unintentionally pulling you in.

METHOD 2: Throw

Most swimming areas have safety rings attached to a rope. They float and can often be thrown far out of reach of the shore.

- Take care not to hit the person with the ring.
- Instruct him or her to grab it.
- Pull on the rope to get the person to shore.

METHOD 3: Row.

If the victim is too far out for method one or two, the next option is to get a boat.

- Get as close as you can, but be careful not to hit the person.
- Instruct the person to grab onto the side of the boat, or perform a reach maneuver to help him or her get secure.
- As you get closer, consider throwing out a safety ring to help the person stabilize before you get close enough to reach.

METHOD 4: Go.

Swimming out to rescue a water-immersion victim is risky and should be the last resort. This requires training and competent swimming skills. Drowning victims are often thrashing wildly and pose hazards to their rescuers. They may attempt to climb the rescuer, trying to get themselves as high out of the water as possible. This simply pushes the rescuer under the water and puts him or her at risk for drowning! If you feel at all unsafe swimming out to a victim, you can still “Go,” by going for help.

AFTER THE RESCUE

Once you’ve rescued the person, first aid should be provided. First aid for people with water-immersion injuries is unique and requires special training. The basics center around assuming an underlying cause for the near drowning. Did this person have a seizure while swimming? Did she have a heart attack? Is he intoxicated? Did she fall out of a boat? Most importantly, did he injure his neck before being in the water?

Immediately begin assessing the person’s ABCs: airway, breathing and circulation.

- Ensure the airway is open—that nothing is obstructing it.
- Make sure the person is breathing—feel for air moving in and out.
- Feel for a pulse on the wrist or side of the neck.

If any of these checks shows a problem, immediately fix that problem before going on to the next check. (No airway means you must fix the airway before checking breathing.) CPR may be required.

BSA Beginner Test

Jump feet-first into water over your head in depth, level off and swim 25 feet on the surface, stop, turn sharply, resume swimming, then return to your starting place.

BSA Swimmer Test

- Jump feet first into water over the head, level off, and begin swimming.
- Swim 75 yards in a strong manner using one or more of the following strokes: side, breast, trudgen, or crawl. Swim 25 yards using an easy, resting backstroke.
- The 100 yards must be completed **without stops** and must include at least one sharp turn.
- Rest by floating...Long enough to demonstrate ability to rest when exhausted.

NOTE: Because this is an “attempt” it’s designed to introduce boys to the BSA swim test, and they do not need to be perfect at it yet. However, they should be warned that when they are ready to become First Class Scouts, they will need to pass this test. So they should get to practicing!

Sharks and Minnows

Sharks and Minnows is a fast-paced pool game that's been popular since the fifties. There are many variations of this game that allow you to play it in a variety of settings. Following the rules and safety guidelines will guarantee a fun time for all swimmers of every ability group. (<http://www.wikihow.com/Play-Sharks-and-Minnows>)

Learning the Game

Pick a Shark. Choose a player to be the Shark. This player is now “it” and stands in the center of the pool (the “ocean”).

- When playing with a lot of people in a large area, you can play with more than one Shark. 10 Minnows to 1 Shark is a good ratio.
- If many people want to be the Shark you can decide by flipping a coin, or playing rock, paper, scissors.

Have many Minnows. Everyone who isn't a Shark is a Minnow. Minnows form a line at one end of the pool deck, facing the Shark. There should be at least twice as many Minnows as Sharks.

Start the game. To start, the Shark yells, "fishy, fishy, cross my ocean", or some variation of that. When the Minnows hear this call, they jump into the pool and start to make their way to the opposite end. The Shark must remain in place above water until the next call.

Experienced swimmers can challenge themselves by requiring players to dive, cannonball, or can-opener into the pool.

Playing the Game

Avoid the Shark. Once everyone is in the water the Shark yells, "Sharks and Minnows!" or "Shark attack!" at any time to start “tagging” players. When the Shark yells this, the Minnows' goal is to reach the other end of the pool without being tagged by the Shark.

- If the Shark tags a Minnow, that Minnow becomes a Shark and joins the Shark's team. They now begin tagging Minnows to turn them into Sharks.

- When the Minnows have made it to the other side of the pool without being tagged, they wait. The Shark calls “fishy, fishy...” again and they try to return to the other side of the pool. The original Shark calls, "Shark Attack" and the process repeats.

Play until there is a winner. The last remaining Minnow is the winner. This player becomes the Shark in the next round. It becomes harder as more and more Minnows become Sharks. The game lasts until there is only one Minnow left.

- If you started out with more than one Shark, the last two Minnows become the next Sharks.

Trying Variations

Once you've become an expert at the game you can add your own rules to enhance it.

Make new tagging rules. Make it a rule that the Shark can only tag Minnows who have their head above water. It's fun to challenge yourself but never put your life in danger. Be cautious and make sure swimmers can make it from one side of the pool to the other in one breath.

Add obstacles. Place pool floats around the pool. If a player bumps into one, send them back to the beginning or make them sit through a time out.