

BOY SCOUTS OF AMERICA  
MERIT BADGE SERIES

# CLIMBING



*"Enhancing our youths' competitive edge through merit badges"*



BOY SCOUTS OF AMERICA®

# Note to the Counselor

Young people today seek greater challenges, and climbing and rappelling offer a worthy challenge. The satisfaction of safely climbing a rock face is hard to top. While introduction of the Climbing merit badge in 1997 spurred interest in these activities through the Boy Scouts of America, the proliferation of climbing gyms and facilities has also made climbing and rappelling readily available throughout the United States.

This increased interest has made the BSA more aware of the inherent risks of climbing and rappelling. More accidents occur during unit rappelling than during council-managed climbing or rappelling, and more accidents have occurred during rappelling than climbing. Many climbing and rappelling accidents could be avoided by having qualified instruction from a conscientious adult who has the attention and respect of the youth entrusted to his or her care. Supervision by a caring adult who fully understands and appreciates the responsibility he or she assumes helps assure safety when youth engage in or prepare for climbing or rappelling.

The adult supervisor's relationship with youth should reinforce the importance of following instructions. The adult leader in charge and the climbing instructor share this responsibility. The instructor is responsible for all procedures and for safely conducting the climbing/rappelling activity. The adult supervisor works cooperatively with the climbing instructor and is responsible for all matters outside of the climbing/rappelling activity.

Climb On Safely is the Boy Scouts of America's recommended procedure for organizing BSA unit climbing/rappelling activities at a natural site or a specifically designed facility such as a climbing wall or tower.



*Belay On*, No. 430-500, is the most authoritative guide currently available from the Boy Scouts of America. *Mountaineering: The Freedom of the Hills*, ninth edition, edited by Eric Linxweiler and Mike Maude, is a recommended reference for specific questions not covered in BSA literature. The chapter on transportation in the *Guide to Safe Scouting*, No. 34416, is an appropriate resource for instruction on how to safely get your unit to and from the climbing/rappelling site.

Units that elect to participate in lead climbing and snow and ice climbing are required to receive training from a nationally recognized organization that trains climbing and rappelling instructors. All council and district climbing must comply with the current year's *National Camp Standards*, No. 430-056, and must be top-roped.

Each of the following points plays an important role in the overall Climb On Safely program. Fun and safe climbing/rappelling activities require close compliance of Climb On Safely by the adult supervisor and instructor. These points also apply to bouldering—traversing a few feet above ground level.

**1. Qualified Supervision.** All climbing and rappelling must be supervised by a mature, conscientious adult at least 21 years of age who understands the risks inherent to these activities. This person knowingly accepts responsibility for the well-being and safety of the youth in his or her care. This adult supervisor is trained in and committed to compliance with the eight points of the Boy Scouts of America's Climb On Safely procedure and responsible for recruiting and verifying the qualifications of the qualified instructors. One adult supervisor is required for every 10 participants with a minimum of two adults for any one group.



The adult supervisor is responsible for ensuring that someone in the group is currently trained in American Red Cross First Aid and CPR (a six-and-one-half-hour course). In addition, Wilderness First Aid (a 16-hour course) is recommended for units going to remote areas. A course of equivalent length and content from another nationally recognized organization can be substituted. A higher level of certification such as emergency medical technician (EMT), licensed practical nurse (LPN), registered nurse (RN), and licensed healthcare practitioner is also acceptable if the person is trained in backcountry medical care. The ARC's Emergency Response, a 43½-hour course that includes CPR, is highly recommended.



- 2. Qualified Instructors.** There must be a minimum of two instructors for all climbing and rappelling activities (up to 12 participants) and one additional instructor for each additional six participants, maintaining a 6-to-1 ratio.

The qualified instructor managing the climbing/rappelling activity must be at least 21 years of age, and be current in his or her training from one or more of the sources listed below or equivalent:

- BSA Level II climbing instructor or climbing director
- BSA Level II COPE instructor or COPE director (artificial structures only)
- Instructors trained by professional organizations or their accredited providers:
  - American Mountain Guides Association (AMGA)
    - Rock instructor
    - Single pitch instructor
    - Climbing wall instructor (artificial structures only)
  - Professional Climbing Instructors Association (PCIA)
    - Base-managed climbing instructor
    - Top-managed climbing instructor
    - Single pitch instructor
    - Climbing wall instructor (artificial structures only)
  - Professional Climbing Guide Institute (PCGI)
    - Top rope guide
    - Single pitch guide
    - Lead guide
    - Multipitch guide
  - Climbing Wall Association (CWA)
    - Climbing wall instructor (artificial structures only)
- Professional climbing guide/instructors who are licensed by the state or accredited according to:
  - AMGA, PCIA, or PCGI for natural rock climbing
  - AMGA, PCIA, CWA, PRCA, or ACCT for artificial structures
- University or college climbing/rappelling instructors who are current in their training (assessment within three years) as rock climbing instructors (or climbing wall instructors for artificial structures only)

- 3. Physical Fitness.** Require evidence of fitness for the climbing/rappelling activity with a current BSA Annual Health and Medical Record, No. 680-001. The adult supervisor should adapt all supervision, discipline, and precautions to anticipate any potential risks associated with individual health conditions. The adult supervisor should inform the climbing instructor about each participant's medical conditions.
- 4. Safe Area.** All BSA climbing/rappelling activities must be conducted using an established climbing/rappelling site or facility. A qualified climbing instructor should survey the site in advance of the activity to identify and evaluate possible hazards and to determine whether the site is suitable for the age, maturity, and skill level of the participants. The instructor should also verify that the site is sufficient to safely and comfortably accommodate the number of participants in the activity within the available time. An emergency evacuation route must be identified in advance. A separate area should be established for onlookers.

Each participant and staff member in the fall zone of a climbing/rappelling site must wear a UIAA- or CE-approved rock-climbing helmet. Everyone must be belayed or tethered when within 8 feet of an edge where a fall of more than 6 feet could occur.

- 5. Equipment.** The climbing instructor should verify that the proper equipment is available for the size and ability level of participants. Helmets, rope, and climbing hardware must meet appropriate requirements as outlined in *Belay On*. All equipment must be acquired new and/or furnished by the instructor and retired according to the manufacturer's recommendations.

When using a climbing gym, the climbing facility's procedures apply.



**6. Planning.** When planning, remember the following:

- Share the climbing/rappelling plan and an alternate with parents and the unit committee.
- Secure the necessary permits or written permission for using private or public lands.
- Enlist the help of a qualified climbing instructor.
- Be sure the instructor has a topographic map for the area being used and obtains a current weather report for the area before the group's departure.

It is suggested that at least one of the adult leaders has an electronic means of communication in case of an emergency. Before any activity, an adult leader should develop and share an emergency plan that includes the location of a nearby medical facility and the means of communicating with parents during the activity.

**7. Environmental Conditions.** The instructor, each adult leader, and each participant assume responsibility for monitoring potentially dangerous environmental conditions that may include loose, crumbly rock; poisonous plants; wildlife; and inclement weather. Use the buddy system to monitor concerns such as dehydration, hypothermia, and an unusually high degree of fear or apprehension. The adult supervisor is responsible for ensuring that the group leaves no trace of its presence at the site.

**8. Discipline.** Each participant knows, understands, and respects the rules and procedures for safely climbing and rappelling and has been oriented in Climb On Safely and Leave No Trace. All participants should respect and follow all instructions and rules of the climbing instructor. The applicable rules should be presented and learned prior to the outing and should be reviewed for all participants before climbing or rappelling begins. When participants know the reasons for rules and procedures, they are more likely to follow them. The climbing instructor must be strict and fair, showing no favoritism.

---

The concept of challenge by choice applies to all climbing/rappelling activities. No one should be forced or pressured into doing something with which he or she is not comfortable.

---

# Requirements

1. Do the following:
  - a. Explain to your counselor the most likely hazards you may encounter while participating in climbing and rappelling activities and what you should do to anticipate, help prevent, mitigate, and respond to these hazards.
  - b. Show that you know first aid for and how to prevent injuries or illnesses that could occur during climbing activities, including heat and cold reactions, dehydration, stopped breathing, sprains, abrasions, fractures, rope burns, blisters, snakebite, concussions, and insect bites or stings.
  - c. Identify the conditions that must exist before performing CPR on a person.
2. Learn the Leave No Trace principles and Outdoor Code, and explain what they mean.
3. Present yourself properly dressed for belaying, climbing, and rappelling (i.e., appropriate clothing, footwear, and a helmet; rappellers can also wear gloves).
4. **Location.** Do the following:
  - a. Explain how the difficulty of climbs is classified, and apply classifications to the rock faces or walls where you will demonstrate your climbing skills.
  - b. Explain the following: top-rope climbing, lead climbing, and bouldering.
  - c. Evaluate the safety of a particular climbing area. Consider weather, visibility, the condition of the climbing surface, and any other environmental hazards.
  - d. Determine how to summon aid to the climbing area in case of an emergency.

5. **Verbal signals.** Explain the importance of using verbal signals during every climb and rappel, and while bouldering. With the help of the merit badge counselor or another Scout, demonstrate the verbal signals used by each of the following:
  - a. Climbers
  - b. Rappellers
  - c. Belayers
  - d. Boulderers and their spotters
6. **Rope.** Do the following:
  - a. Describe the kinds of rope acceptable for use in climbing and rappelling.
  - b. Show how to examine a rope for signs of wear or damage.
  - c. Discuss ways to prevent a rope from being damaged.
  - d. Explain when and how a rope should be retired.
  - e. Properly coil a rope.
7. **Knots.** Demonstrate the ability to tie each of the following knots. Give at least one example of how each knot is used in belaying, climbing, or rappelling.
  - a. Figure eight on a bight
  - b. Figure eight follow-through
  - c. Water knot
  - d. Double fisherman's knot (grapevine knot)
  - e. Safety knot
8. **Harnesses.** Correctly put on a commercially made climbing harness.

9. **Belaying.** Do the following:
  - a. Explain the importance of belaying climbers and rappellers and when it is necessary.
  - b. Belay three different climbers ascending a rock face or climbing wall.
  - c. Belay three different rappellers descending a rock face or climbing wall using a top rope.
10. **Climbing.** Do the following:
  - a. Show the correct way to directly tie into a belay rope.
  - b. Climb at least three different routes on a rock face or climbing wall, demonstrating good technique and using verbal signals with a belayer.
11. **Rappelling.** Do the following:
  - a. Using a carabiner and a rappel device, secure your climbing harness to a rappel rope.
  - b. Tie into a belay rope set up to protect rappellers.
  - c. Rappel down three different rock faces or three rappel routes on a climbing wall. Use verbal signals to communicate with a belayer, and demonstrate good rappelling technique.
12. Demonstrate ways to store rope, hardware, and other gear used for climbing, rappelling, and belaying.

# Climbing Resources

## Scouting Literature

*Belay On; Scouts BSA Handbook for Boys; Scouts BSA Handbook for Girls; Climb on Safely; Learn and Live Knot Cards*

With your parent's permission, visit the Boy Scouts of America's official retail website, [www.scoutshop.org](http://www.scoutshop.org), for a complete listing of all merit badge pamphlets and other helpful Scouting materials and supplies.

## Instruction and Guidebooks

Allen, Linda B. *High Mountain Challenge: A Guide for Young Mountaineers*. AMC Books, 1989.

Burbach, Matt. *Gym Climbing: Improve Technique, Movement, and Performance*. Mountaineers Books, 2018.

Donahue, Tophor and Craig Luebben. *Rock Climbing: Mastering Basic Skills*, 2nd ed. Mountaineers Books, 2014.

Fawcett, Ron, et al. *The Climber's Handbook: Rock, Ice, Alpine, Expeditions*. Sierra Club, 1987.

Lewis, S. Peter. *Climbing: From Gym to Crag, Building Skills for Real Rock*. Mountaineers Books, 2000.

Linxweiler, Eric, and Mike Maude, eds. *Mountaineering: The Freedom of the Hills*, 9th ed. Mountaineers Books, 2017.

Long, John. *How to Rock Climb!* Globe Pequot Press, 2010.

Long, John, and Bob Gaines. *Climbing Anchors*. Falcon Guides, 2013.

Loughman, Michael. *Learning to Rock Climb*. Random House, 1982.

Luebben, Craig. *Knots for Climbers*. Falcon, 2011.

Mellor, Don. *Rock Climbing: A Trailside Guide*. W. W. Norton, 2003.

Roper, Steve, and Allen Steck. *Fifty Classic Climbs of North America*. Sierra Club, 1996.

Sherman, John. *Better Bouldering*, 2nd. ed. Falcon, 2012.

Skinner, Todd, and John McMullen. *Modern Rock Climbing: Beyond the Basics*. ICS Books, 1993.

Takeda, Pete. *Extreme Sports: Climb!* National Geographic, 2002.

Toula, Tim. *Rock 'n' Road: An Atlas of North American Rock Climbing Areas*, 2nd ed. Falcon, 2003.

Voeller, Edward A. *Sport Climbing*.  
Capstone Books, 2000.

Wilkerson, James A., ed. *Medicine for  
Mountaineering and Other  
Wilderness Activities*, 6th ed.  
Mountaineers Books, 2010.

## History and Biography

Bonington, Chris. *Mountaineer: Thirty  
Years of Climbing on the World's  
Great Peaks*. Sierra Club, 1996.

Curran, Jim. *K2: Triumph and Tragedy*.  
Houghton Mifflin, 1987.

Fraser, Mary Ann. *On Top of the World:  
The Conquest of Mount Everest*.  
Henry Holt, 1991.

Jones, Chris. *Climbing in North America*.  
Mountaineers Books, 1997.

Krakauer, Jon. *Into Thin Air: A Personal  
Account of the Mount Everest  
Disaster*. Anchor Books, 1998.

MacDonald, Dougald, ed. *The Best of  
Rock and Ice: An Anthology*.  
Mountaineers Books, 1999.

Messner, Reinhold. *The Crystal Horizon:  
Everest—The First Solo Ascent*.  
Mountaineers Books, 1989.

Rosen, Mike. *The Conquest of Everest*.  
Bookwright Press, 1990.

Sherman, John. *Stone Crusade: A  
Historical Guide to Bouldering  
in America*. American Alpine  
Club, 1999.

Weihenmayer, Erik. *Touch the Top of  
the World: A Blind Man's Journey to  
Climb Farther Than the Eye Can See:  
My Story*. Plume, 2001.

Whittaker, Jim. *A Life on the Edge:  
Memoirs of Everest and Beyond*,  
50th anniversary edition.  
Mountaineers Books, 2013.

## Periodicals

### **Climbing Magazine**

5720 Flatiron Parkway  
Boulder, CO 80301  
Telephone: 303-253-6412  
[www.climbing.com](http://www.climbing.com)

## Organizations and Online Resources

### **Mountain Project**

[www.mountainproject.com](http://www.mountainproject.com)