

BOY SCOUTS OF AMERICA
MERIT BADGE SERIES

CYCLING



"Enhancing our youths' competitive edge through merit badges"



BOY SCOUTS OF AMERICA®

Requirements

1. Do the following:
 - (a) Explain to your counselor the most likely hazards you may encounter while participating in cycling activities and what you should do to anticipate, help prevent, mitigate, and respond to these hazards. Explain to your counselor how to ride predictably, be conspicuous, think ahead, and ride ready.
 - (b) Show that you know first aid for injuries or illnesses that could occur while cycling, including cuts, scratches, blisters, sunburn, heat exhaustion, heatstroke, hypothermia, frostbite, dehydration, insect stings, tick bites, and snakebite. Explain to your counselor why you should be able to identify the poisonous plants and poisonous animals that are found in your area.
2. Describe your state and local laws concerning bicycles. Discuss what is the same and what is different from laws applying to motor vehicles. Explain where and how you should ride on roads and streets to include lane position, changing lanes, making left and right turns, and riding through intersections.
3. Explain the importance of wearing a properly sized and fitted helmet while cycling and of wearing the right clothing for the weather. Know the BSA Bike Safety Guidelines.
4. Using a bicycle safety checklist, clean and adjust a bicycle and present it to your counselor for inspection. Do the following:
 - (a) Show points that should be checked regularly to make sure the bicycle is safe to ride.
 - (b) Show how to adjust the saddle and handlebars for a proper fit.

- (c) Show how to adjust brakes and gear shifting (derailleurs).
 - (d) Show all points that need regular lubrication.
 - (e) Show how to repair a flat by removing the tire, replacing or patching the tube, and remounting the tire.
 - (f) Show that the bicycle meets local laws.
5. Demonstrate basic bicycle handling skills to your counselor, to include how to properly mount your bicycle, starting and stopping (to include emergency stops), riding in a straight line, turning, shifting gears, scanning, and signaling.
 6. Using the BSA buddy system, complete all of the requirements for ONE of the following options: road biking OR mountain biking.*

Option A: Road Biking

(a) Take a road test with your counselor and demonstrate the following:

- (1) On an urban street with light traffic, properly execute a left turn from the center of the street; also demonstrate an alternate left-turn technique used during periods of heavy traffic.
 - (2) Properly execute a right turn.
 - (3) Demonstrate appropriate actions at a right-turn-only lane when you are continuing straight.
 - (4) Show proper curbside and road-edge riding. Show how to ride safely along a row of parked cars.
 - (5) Cross railroad tracks properly.
- (b) Avoiding main highways, take two rides of 10 miles each, two rides of 15 miles each, and two rides of 25 miles each. You must make a report of the rides taken. List dates for the routes traveled, and interesting things seen on the ride.
- (c) After completing requirement b for the road biking option, do ONE of the following:
- (1) Lay out on a road map a 50-mile trip. Stay away from main highways. Using your map, make this ride in eight hours or less.
 - (2) Participate in an organized bike tour of at least 50 miles. Make this ride in eight hours or less. Afterward, use the tour's cue sheet to make a map of the ride.

*The bicycle used for fulfilling these requirements must have all required safety features and must be registered as required by your local traffic laws.

Option B: Mountain Biking

(a) Demonstrate the following mountain bike handling skills to your counselor:

- (1) Neutral position, ready position, bike body separation (side to side, and forward and back), and body positioning for cornering.
- (2) Show shifting skills as applicable to climbs and obstacles.
- (3) Show proper technique for riding up (seated, crouched, and standing) and down hills.

(b) Take a trail ride with your counselor and demonstrate the following:

- (1) Show proper trail etiquette to hikers and other cyclists, including when to yield the right-of-way.
- (2) Demonstrate how to correctly cross an obstacle by either going over the obstacle on your bike or dismounting your bike and crossing over or around the obstacle.

(3) Cross rocks, gravel, and roots properly

(c) Describe the rules of trail riding, including how to know when a trail is unsuitable for riding.

(d) On trails approved by your counselor, take two rides of 2 miles each, two rides of 5 miles each, and two rides of 8 miles each.

You must make a report of the rides taken. List dates for the routes traveled, and interesting things seen.

(e) After fulfilling the previous requirement, lay out on a trail map a 22-mile trip. You may include multiple trail systems, if needed. Stay away from main highways. Using your map, make this ride in six hours.



Cycling Resources

Scouting Literature

Fieldbook; Deck of First Aid; Emergency First Aid pocket guide; *First Aid* merit badge pamphlet

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

Books

- Bohlinger, Tim. *Mountain Biking: A Beginner's Essential Guide to Getting Started in the Sport of Mountain Biking*. CreateSpace Independent Publishing Platform, 2015.
- Bortman, Tori. *The Bicycling Big Book of Cycling for Beginners: Everything a New Cyclist Needs to Know to Gear Up and Start Riding*. Rodale, 2014.
- Burke, Edmund R., and Ed Pavelka. *The Complete Book of Long-Distance Cycling: Build the Strength, Skills, and Confidence to Ride as Far as You Want*. Rodale, 2000.
- Clark, Nancy, and Jenny Hegmann. *The Cyclist's Food Guide*, 2nd ed. Sports Nutrition Publishers, 2011.
- Downs, Todd. *The Bicycling Guide to Complete Bicycle Maintenance and Repair: For Road and Mountain Bikes*, 6th ed. Rodale, 2010.
- Forester, John. *Effective Cycling*, 7th ed. MIT Press, 2012.
- Forth, Clive. *The Mountain Biking Pocket Guide*. Falcon Guides, 2012.
- Friel, Joe. *The Cyclist's Training Bible*, 4th ed. VeloPress, 2009.
- . *The Mountain Biker's Training Bible*. VeloPress, 2000.
- Glowacz, Dave. *Urban Bikers' Tricks and Tips*, 3rd ed. Wordspace Press, 2010.
- Hewitt, Ben. *Bicycling Magazine's New Cyclist Handbook*, revised ed. Rodale, 2005.
- . *Bicycling Magazine's Nutrition for Peak Performance: Eat and Drink for Maximum Energy on the Road and Off*, revised ed. Rodale, 2000.
- Lopes, Brian, and Lee McCormack. *Mastering Mountain Bike Skills*, 2nd ed. Human Kinetics Publishers, 2010.

Sumner, Jason. *Bicycling Complete Book of Road Cycling Skills: Your Guide to Riding Faster, Stronger, Longer, and Safer*, 2nd ed. Rodale, 2016.

Zinn, Lennard. *Zinn & the Art of Mountain Bike Maintenance*, 5th ed. VeloPress, 2010.

———. *Zinn & the Art of Road Bike Maintenance*, 5th ed. VeloPress, 2016.

National Off-Road Bicycle Association (NORBA)

Telephone: 719-434-4200

Website: <http://www.usacycling.org/norba.htm>

USA Cycling

210 USA Cycling Point, Suite 100

Colorado Springs, CO 80919

Telephone: 719-434-4200

Website: <http://www.usacycling.org>

Magazines

Bicycling

400 S. 10th St.

Emmaus, PA 18098

Website: <http://www.bicycling.com>

Ride BMX

2052 Corte Del Nogal, Suite 100

Carlsbad, CA 92011

Website: <http://bmx.transworld.net>

Mountain Bike

Website: <http://www.mountainbike.com>

Organizations and Websites

Adventure Cycling Association

Toll-free telephone: 800-755-2453

Website: <http://www.adventurecycling.org>

International Mountain

Bicycling Association

Toll-free telephone: 888-442-4622

Website: <http://www.imba.com>

League of American Bicyclists

Website: <http://www.bikeleague.org>

National Highway Traffic Safety Administration

Website: <http://www.nhtsa.dot.gov>