



Cycling

Merit Badge Workbook



This workbook can help you but you still need to read the merit badge pamphlet.

The work space provided for each requirement should be used by the Scout to make notes for discussing the item with his counselor, not for providing the full and complete answers. Each Scout must do each requirement.

No one may add or subtract from the official requirements found in the **Cycling** merit badge pamphlet (Pub. 35881 – SKU 616618).

The requirements were last issued or revised in 2013 • This workbook was updated in April 2014.

Scout's Name: _____

Unit: _____

Counselor's Name: _____

Counselor's Phone No.: _____

<http://www.USScouts.Org> • <http://www.MeritBadge.Org>

Please submit errors, omissions, comments or suggestions about this **workbook** to: Workbooks@USScouts.Org
Comments or suggestions for changes to the **requirements** for the **merit badge** should be sent to: Merit.Badge@Scouting.Org

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

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.

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, dehydration, insect stings, tick bites, and snakebite.

Cuts:

Scratches:

Blisters

Sunburn:

Heat
Exhaustion:

Heat Stroke:

Hypothermia:

Dehydration:

Insect stings:

Tick bites:

Snakebite:

- Explain to your counselor why you should be able to identify the poisonous plants and poisonous animals that are found in your area.

- c. 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.

- 2. Clean and adjust a bicycle.
 - Prepare it for inspection using a bicycle safety checklist. (*There is a checklist you may use at the end of this workbook.*)
 - Be sure the bicycle meets local laws.
- 3. Show your bicycle to your counselor for inspection. Point out the adjustments or repairs you have made.

Do the following:

- a. Show all points that need oiling regularly.
- b. Show points that should be checked regularly to make sure the bicycle is safe to ride.
- c. Show how to adjust brakes, seat level and height, and steering tube.

7. Using the BSA buddy system, complete all of the requirements for ONE of the following options: road biking OR mountain biking.

a. Road Biking

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

- (a) Properly mount, pedal, and brake, including emergency stops.
- (b) 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.
 - Standard Left Turn
 - Alternate Left Turn
- (c) Properly execute a right turn.
- (d) Demonstrate appropriate actions at a right-turn-only lane when you are continuing straight.
- (e) Show proper curbside and road-edge riding.
- Show how to ride safely along a row of parked cars.
- (f) Cross railroad tracks properly.

(2) 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.

Ride 1 – 10 Miles Date: _____ Miles: _____

Route:

Most interesting things seen:

Ride 2 – 10 Miles

Date: _____ Miles: _____

Route:

Most interesting things seen:

Ride 3 – 15 Miles

Date: _____ Miles: _____

Route:

Ride 2 – 2 Miles Date: _____ Miles: _____

Route:

Most interesting things seen:

Ride 3 – 5 Miles Date: _____ Miles: _____

Route:

Most interesting things seen:

Ride 4 – 5 Miles

Date: _____

Miles: _____

Route:

Most interesting things seen:

Ride 5 – 8 Miles

Date: _____

Miles: _____

Route:

Most interesting things seen:

Ride 6 – 8 Miles Date: _____ Miles: _____

Route:

Most interesting things seen:

Sample Bicycle Safety Checklist

- Frame - Clean and not bent out of shape. No cracks at Frame Joints.
- Front Fork - Clean and not bent out of shape. No cracks at Fork Joints.
- Headset Bearing - Well lubricated; turns freely with no binding. No perceptible play in the assembly.
- Bottom-Bracket Bearing - Turns freely with not more than barely perceptible play in the bearing.
- Crank Arms - Clean and not bent out of shape. Tightened securely on the Crankset Axle.
- Chainrings - Clean, not worn, and not bent out of shape. Chainring Bolts tightened securely to hold Chainrings to Crankarms.
- Pedals - Bearings well lubricated; turn freely with no play in the bearing. Pedals tightly screwed into Crankarm. Toe Clips functional.
- Fenders - Clean; tightly attached without rattling or rubbing against the Tires.
- Wheels - Run true and round. Wheel nuts tight. Closed and tight quick-releases. Centered in fork or frame members.
- Wheel Bearings in hubs - Well lubricated and properly adjusted to move freely with no more than barely perceptible play.
- Spokes - None broken or bent. Tightened to a uniform tension.
- Tires - Good Tread. Valves 0 completely airtight. Properly inflated to recommended pressure.
- Rims - Clean of all oil and grime. Free of dents or kinks.
- Chain - Proper tension, allowing 1/2 inch of play. No stiff links. Clean, lubricated, and wiped of excess lubrication.
- Gearing - Clean and oiled. Three-speed gears adjusted to eliminate all slipping. Front 42a and Rear 4b derailleurs adjusted for proper shifting with Shifters 4c.
- Brakes
 - Coaster - Even braking. Operate within a 20-degree back-pedaling motion.
 - Hand - Even braking. All nuts tight. Front and rear brakes work without binding. Minimum of 3/16 inch of rubber on Brake Pads. Brake pads aligned with rims and contact rims with a minimum of movement of Hand Controls. No squeal when brakes are used.
- Cables - No frayed ends. No broken strands. All taut.
- Handlebars - Tightened securely. Grips not worn; fit snugly, adjusted to comfort of rider, ends plugged, & in line with wheel.
- Saddle - Height, tilt, and fore/aft position adjusted to rider. All adjustments securely tightened. Seatpost not extended beyond maximum mark on post.
- Lights - Front light visible for 500 feet. Generator or battery in good operating condition.
- Rear Red Reflectors/Lights - Visible for 300 feet. Lights/Blinkers functional with generator or batteries.
- Bell or Horn - In good operating condition. All accessories well tightened and securely fastened. No broken frames or fasteners.
- Bike Registration - If required by local law, must be displayed on frame.

Important excerpts from the [Guide To Advancement - 2013](#), No. 33088 (SKU-618673):

[1.0.0.0] — Introduction

The current edition of the *Guide to Advancement* is the official source for administering advancement in all Boy Scouts of America programs: Cub Scouting, Boy Scouting, Varsity Scouting, Venturing, and Sea Scouts. It replaces any previous BSA advancement manuals, including *Advancement Committee Policies and Procedures*, *Advancement and Recognition Policies and Procedures*, and previous editions of the *Guide to Advancement*.

*Note: The current edition is the **Guide to Advancement, 2013** (No. 33088 – SKU 618673).*

[Page 2, and 5.0.1.4] — Policy on Unauthorized Changes to Advancement Program

No council, committee, district, unit, or individual has the authority to add to, or subtract from, advancement requirements. There are limited exceptions relating only to youth members with special needs. For details see section 10, “Advancement for Members With Special Needs”.

[Page 2] — The “Guide to Safe Scouting” Applies

Policies and procedures outlined in the *Guide to Safe Scouting*, No. 34416, apply to all BSA activities, including those related to advancement and Eagle Scout service projects.

[7.0.3.1] — The Buddy System and Certifying Completion

A youth member must not meet one-on-one with an adult. Sessions with counselors must take place where others can view the interaction, or the Scout must have a buddy: a friend, parent, guardian, brother, sister, or other relative—or better yet, another Scout working on the same badge—along with him attending the session.

When the Scout meets with the counselor, he should bring any required projects. If these cannot be transported, he should present evidence, such as photographs or adult verification. His unit leader, for example, might state that a satisfactory bridge or tower has been built for the Pioneering merit badge, or that meals were prepared for Cooking. If there are questions that requirements were met, a counselor may confirm with adults involved. Once satisfied, the counselor signs the blue card using the date upon which the Scout completed the requirements, or in the case of partials, initials the individual requirements passed.

Note that from time to time, it may be appropriate for a requirement that has been met for one badge to also count for another. See “Fulfilling More Than One Requirement With a Single Activity,” 4.2.3.6.

[7.0.3.2] — Group Instruction

It is acceptable—and sometimes desirable—for merit badges to be taught in group settings. This often occurs at camp and merit badge midways or similar events. Interactive group discussions can support learning. The method can also be attractive to “guest experts” assisting registered and approved counselors. Slide shows, skits, demonstrations, panels, and various other techniques can also be employed, but as any teacher can attest, not everyone will learn all the material.

There must be attention to each individual’s projects and his fulfillment of *all* requirements. We must know that every Scout—actually and *personally*—completed them. If, for example, a requirement uses words like “show,” “demonstrate,” or “discuss,” then every Scout must do that. It is unacceptable to award badges on the basis of sitting in classrooms *watching* demonstrations, or remaining silent during discussions. It is sometimes reported that Scouts who have received merit badges through group instructional settings have not fulfilled all the requirements. To offer a quality merit badge program, council and district advancement committees should ensure the following are in place for all group instructional events.

- Merit badge counselors are known to be registered and approved.
- Any guest experts or guest speakers, or others assisting who are not registered and approved as merit badge counselors, do not accept the responsibilities of, or behave as, merit badge counselors, either at a group instructional event or at any other time. Their service is temporary, not ongoing.
- Counselors agree not to assume prerequisites have been completed without some level of evidence that the work has been done. Pictures and letters from other merit badge counselors or unit leaders are the best form of prerequisite documentation when the actual work done cannot be brought to the camp or site of the merit badge event.
- There is a mechanism for unit leaders or others to report concerns to a council advancement committee on summer camp merit badge programs, group instructional events, and any other merit badge counseling issues—especially in instances where it is believed BSA procedures are not followed. See “Reporting Merit Badge Counseling Concerns,” 11.1.0.0.
- There must be attention to each individual’s projects and his fulfillment of all requirements. We must know that every Scout—actually and personally—completed them.

[7.0.3.3] — Partial Completions

A Scout need not pass all the requirements of one merit badge with the same counselor. It may be that due to timing or location issues, etc., he must meet with a different counselor to finish the badge. The Application for Merit Badge has a place to record what has been finished—a “partial.” In the center section on the reverse of the blue card, the counselor initials for each requirement passed. In the case of a partial completion, the counselor does not retain his or her portion of the card. A subsequent counselor may choose not to accept partial work, but this should be rare. A Scout, if he believes he is being treated unfairly, may work with his unit leader to find another counselor. An example for the use of a signed partial would be to take it to camp as proof of prerequisites. Partials have no expiration except the Scout’s 18th birthday. Units, districts, or councils shall not establish other expiration dates for partial merit badges.