

BSA

Cycling Merit Badge

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MB Counselor

Cycling Merit Badge

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Schedule / Agenda

Cycling Merit Badge - Items covered:

- Safety and First Aid
- Bicycle cleaning and adjustments
- Bicycle inspection - guidelines
- Bicycle safe operation
- Bicycle field repairs - flat tires
- Rules and Regulations
 - State and Local laws
 - BSA Guide to Safe Cycling
- The Buddy System
- Rides required for MB completion

Safety and First Aid

Hazards

Explain 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.

- Other Vehicles (Cars, Trucks, Busses, other bikes, etc.)
- Potholes
- Debris and Trash
- Weather
- Animals
- Mechanical Malfunction

First Aid

Discuss First Aid that might be required during a ride:

- Cuts
- Scratches
- Blisters
- Sunburn
- Heat Exhaustion / Heat Stroke
- Hypothermia
- Dehydration
- Insect Stings / Ticks
- Animal Bites (Dog, snake, etc.)

Poisonous Plants/Animals

Useful more when mountain biking:

- How to identify plants (Ivy, Oak, Sumac)
- Animals - snakes
- Best prevention is clothing!

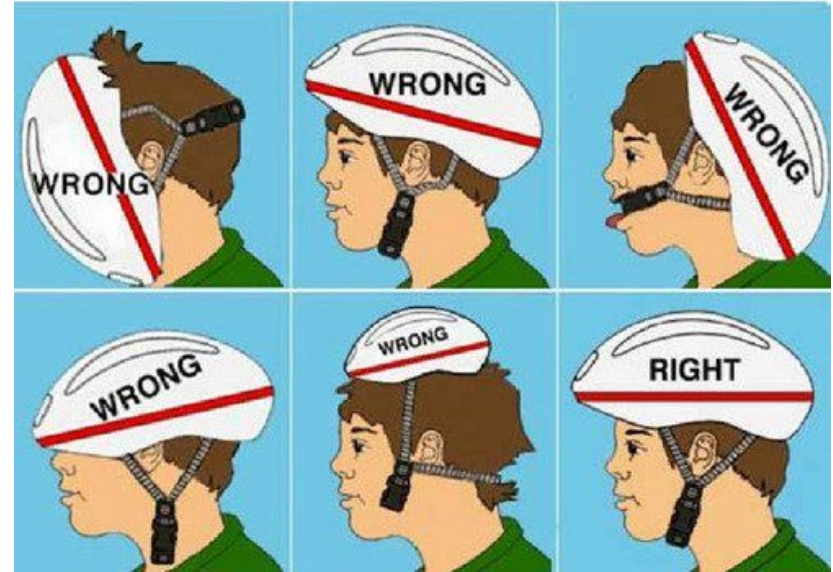
Helmets and Clothing

Helmets:

- Must be properly fitted and worn!
- 2-4-1 rule for proper location and tightness

Clothing:

- Must be suitable for the weather
- Must be suitable for the environment
 - Shoes, pads, sleeves
- Prevent chafing!
- Be visible!!! Bright colors!



How to correctly fit a bike helmet:



2
Two fingers
above your eyebrows to
the bottom of your helmet



4
Four fingers
to make a V-shape around
the bottom of your ears



1
One finger
under the strap
beneath your chin

BSA Bike Safety Guidelines

Required for all BSA Cycling Activities (see handout - Google Doc):

- Qualified Supervision
- Physical Fitness
- Helmets and Clothing
- Buddy System
- Position in Traffic
- Safety Rules
- Turns and Intersections
- Equipment
- Bicycle Accessories
- Maintenance
- Racing
- Planning
- Discipline

Bike Repair and Maintenance

Bike Checklist and Safety Inspection

- See safety checklist handout (Google Doc)
- Present your bike to your MB counselor for inspection.
 - Point out any repairs or adjustments you have made.
 - Show any regular lube points
 - Show points that need to be inspected regularly
 - Show how to adjust brakes, seat height, etc.

Flat Tire Repair

Demonstration of tire removal and tube replacement.

Key points:

- Take care not to scratch the rim
- Carefully check for embedded objects in the tire and/or tube.
- Patch the tube or replace it if necessary.
 - A “boot” may be necessary if the hole is larger than a pin hole.
- Reinflate the tire to the proper pressure

Safe Bike Operation

Basic Riding Skills

The basics:

- Mount / Dismount
- Shifting Gears
- Braking (see next slide)
- Signaling
- Uphill / Downhill
- How to go over bumps and cross railroad tracks
- Importance of pedal cadence on long rides

Braking

Describe how to brake safely:

- Make sure the brakes are in good condition before riding!
- Have fingers ready, if possible.
- Use only 2 or 3 fingers to apply the brake lever.
- Use both front and rear brakes (3:1 ratio of front to rear)
 - If the rear tire skids, let up on front and rear brakes slightly until wheel stops skidding

Signaling

Proper signaling helps other cyclists and drivers know your intentions.

At a bare minimum, the 4 basic hand signals for left, right, alt. right, and stop should be memorized and used.



The Buddy System

Ride with a parent or friend. Try not to ride alone.

If you ride alone, file a plan with someone including route, destination, and times.

Have a way to communicate in case of an emergency (cell phone, orange flag, etc.).

Bumps and Railroad Tracks

Always cross tracks perpendicular to the direction of the tracks.

For large bumps (roots, cracks, speed bumps, manhole cover, etc.), keep a firm grip on the handlebars and keep your weight back over the seat. Do not sit on the seat, as it can bounce you upwards. Keep your knees bent slightly.

Rules and Regulations (Ohio)

Ohio Laws (summarized)

- Keep to the right as much as practical for safe operation.
 - May take the whole lane if narrow, or debris/poor pavement on right hand side.
 - May take the lane if double paeline being used.
- Must use lights and reflectors at dawn, dusk, night (white in front, red in rear)
- Helmets!
- Bike in the street, not on the sidewalk, in the same direction as traffic.
- Bicycles are a vehicle, and must follow vehicle laws (stop signs, traffic lights, speed limits, safe passing, etc.).
- Cars must give cyclists a minimum of 3 ft clearance when passing.

Merit Badge Bike Ride Requirements

Bike Operation Road Test

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

- Properly mount, pedal, and brake, including emergency stops.
- 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
- Properly execute a right turn.
- Demonstrate appropriate actions at a right-turn-only lane when you are continuing straight.
- Show proper curbside and road-edge riding. Show how to ride safely along a row of parked cars.
- Show how to handle obstacles. Cross railroad tracks properly.

Required Rides to complete the MB:

7 mandatory road rides with mapped routes:

- 2 separate 10 mile rides using the buddy system
- 2 separate 15 mile rides using the buddy system
- 2 separate 25 mile rides using the buddy system
- 1 pre-planned 50 mile ride, completed in less than 8 hours; or 1 ride of at least 50 miles with an organized bike tour (MARR, TAB, etc.) that is mapped after the ride.

Required Rides to complete the MB:

Or, 7 mandatory mountain bike rides with mapped routes:

- 2 separate 2 mile rides using the buddy system
- 2 separate 5 mile rides using the buddy system
- 2 separate 8 mile rides using the buddy system
- 1 pre-planned 22 mile ride, completed in less than 6 hours

Note - these rides must be true mtb singletrack trails (e.g. Jermain Park, Brighton), and not doubletrack/gravel paths (e.g. the Wabash Cannonball or the Towpath Trail).

Remember, the most important rule of cycling is to always wear your helmet!

