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Cycling merit badge worksheet

You must choose one Merit Badge (Merit Swimming or Hiking) in order to get your Eagle Scout Rank. Follow these steps: Discuss with your counselor the potential dangers you may encounter while cycling and how you can avoid them. Teach your counselor how to ride safely, be noticeable, think ahead, and be ready to react. Show that you know first aid for common injuries or illnesses when cycling, such as cuts, sunburn, heat exhaustion, etc. Tell your counselor why you should know the poisonous plants and animals in your area. Describe your local bike laws and how they are different from car laws. Teach your counselor where and how to ride on roads and streets, including lane positions, changing lanes, turning, and using intersections. Explain the importance of wearing a properly fitted helmet when cycling and what to wear for good weather conditions. Know the BSA Bike Safety Guidelines. Use a bike safety checklist to clean and check your bike before showing it to your counselor. Show your counselor how often to inspect your bike's brakes, gears, and other parts. Teach your counselor how to repair a flat tire by removing the tube, patching or replacing it, and putting the tire back on. Make sure you know local laws. Use the BSA buddy system to complete one of the following options: road biking OR mountain biking. *OPTION A - Road Biking Take a bike test with your counselor and demonstrate the following: Ride in an urban street with light traffic. Do a left turn from the center of the street. Do an alternate left-turn technique during heavy traffic. Properly ride a right turn. Follow curbside and road-edge riding rules. Ride safely between parked cars. Cross railroad tracks correctly. Avoid main highways and ride on 10 miles, then 15 miles, then 25 miles on two separate rides. Keep track of dates and interesting things you see during the ride. To complete the Cycling merit badge, riders must participate in organized bike tours of at least 50 miles within eight hours. They should also create a map of the ride using the tour's cue sheet. Additionally, Scouts are required to demonstrate various mountain bike skills, including neutral and ready positions, bike body separation, and proper trail etiquette. For mountain biking, riders need to show shifting skills on climbs and obstacles, as well as proper technique for riding up and down hills. They must also take a trail ride with their counselor and demonstrate how to correctly cross obstacles, such as rocks and roots. Trail rides should be completed in accordance with the rules of trail riding, which include knowing when a trail is unsuitable for riding. Riders are required to make reports of their rides, including dates and interesting things seen. The Cycling merit badge requires Scouts to ride on trails approved by their counselor, completing two 2-mile rides, two 5-mile rides, and two 8-mile rides. A 22-mile trip should also be planned and ridden using a map. If you're just starting out with ScoutSmarts, head back to part 1 for the lowdown on requirements 1-3 of the Cycling merit badge. If you've recently come from part one, kudos! You're halfway there! Completing this badge will give you the know-how to ride safely through various conditions. Give yourself a pat on the back for making it thus far.Now, let's get back into gear! Take a minute to carefully review and think through requirements 3-7 of the Cycling merit badge.Show your bicycle to your counselor for inspection, highlighting any adjustments or repairs you've made. Then, do the following:Show all points that need regular oiling (3a).Point out areas that should be checked regularly to ensure your bike is safe to ride (3b).Explain how to adjust brakes, seat level and height, and steering tube (3c).Describe safe braking techniques using foot brakes and hand brakes.Show how to repair a flat by removing the tire, replacing or patching the tube, and remounting the tire.Describe your state's traffic laws for bicycles. Compare them with motor-vehicle laws. Familiarize yourself with bicycle-safety guidelines.Under the BSA buddy system, complete all requirements for ONE of the following options: road biking OR mountain biking.Option 1: Road BikingTake a road test with your counselor and demonstrate the following:Properly mount, pedal, and brake, including emergency stops (7a I).Properly execute a left turn from the center of the street; also demonstrate an alternate left-turn technique used during periods of heavy traffic (7a II).Properly execute a right turn (7a III).Demonstrate appropriate actions at a right-turn-only lane when you're continuing straight (7a IV).Show proper curbside and road-edge riding. Show how to ride safely along a row of parked cars (7a V).Cross railroad tracks properly (7a VI).Avoid main highways, then take two rides of 10 miles each, two rides of 15 miles each, and two rides of 25 miles each. Make a report of the rides taken. List dates for the routes traveled, and interesting things seen (7b).After completing requirement b for the road biking option, do ONE of the following:Option 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.Option 2. Participate in an organized bike tour of at least 50 miles. Make this ride in eight hours. Afterward, use the tour's cue sheet to make a map of the ride.Option 2: Mountain BikingTake a trail ride with your counselor and demonstrate the following:Properly mount, pedal, and brake, including emergency stops (7a I).Show shifting skills as applicable to climbs and obstacles (7a II).Show proper trail etiquette to hikers and other cyclists, including when to yield the right-of-way (7a III).Show proper technique for riding up and down hills (7a IV).Demonstrate how to correctly cross an obstacle by either going over it on your bike or dismounting your bike and crossing over (7a V). The trail riding requirements include several steps:7a. Cross rocks, gravel, and roots properly.7b. Describe the rules of trail riding and know when a trail is unsuitable for riding.7c. Take multiple rides on trails approved by your counselor, including two 2-mile rides, two 5-mile rides, and two 8-mile rides. Make a report with dates and interesting observations.7d. Plan a 22-mile trip using a trail map and complete it in six hours, avoiding main highways. Before starting any ride, inspect three critical areas of your bike: air pressure, brakes, and chain. Adjusting Your Bicycle for Optimal Performance and Comfort To maximize the enjoyment of your cycling experience, fine-tuning your bicycle's settings is crucial. A well-adjusted bike ensures a comfortable ride, reduces wear and tear on components, and minimizes the risk of injury. Brake Adjustment ----- As you accumulate mileage on your bike, your hand brakes may become less responsive due to worn-down brake pads or slackened brake cables. Fortunately, this issue is easily resolvable. Locate the brake barrel adjuster (usually a tube-like component near the hand brakes or brake pads) and turn it clockwise until you achieve the desired level of tightness. However, if your bike is older, it may require new brake pads. Visual aids like the informative video on adjusting brake pads can provide valuable guidance for this process. Seat Height and Level Adjustment ----- Properly setting your bike's seat height and level is vital to maintaining comfort and avoiding injury. Consider the following tips: * Seat Height: Ensure your leg can almost fully extend at the bottom part of the pedal rotation range. Avoid setting the seat too low, as this can lead to discomfort and strain. * Seat Level: For most riders, adjusting the seat to be perfectly level is ideal. A seat that's too far up can cause lower back, shoulder, and neck pain, while a seat that's too far down can put pressure on your arms, wrists, and hands. If you notice any discomfort or strain, make adjustments to the opposite direction to alleviate the issue. Steering Tube Adjustment ----- The bicycle steering tube (headset) connects the handlebars to the bike's frame. If it becomes loose, rattling around can occur. To tighten it, follow these steps: * Visual reference: A video guide will be more effective than verbal explanation. The recommended video shows you how to complete this process for most bikes. By following these guidelines and tips, you'll be able to optimize your bicycle's settings for a comfortable, enjoyable ride. Using an Allen key can help stabilize your headset on a bike by preventing it from wobbling. A video (4:47) provides a comprehensive guide to adjusting the steering tube. Once you grasp these adjustments, you'll be able to customize any bike to fit perfectly to your body. Remember to pay close attention to seat height as it significantly affects soreness after riding. Adjusting and mastering bike safety is just halfway through the required knowledge. Now that your bike is set up correctly, focus on developing the skill of braking while maintaining control. This ability is crucial for safety on the road and enhances overall enjoyment. Braking using foot brakes involves applying gentle pressure with your pedal to engage the brake pads. However, most cyclists opt for handbrakes as they provide more precise control over each wheel's braking. To use handbrakes effectively, squeeze the levers on the handlebars while leaning back to distribute your weight evenly. It's essential to practice using both brakes simultaneously once you gain experience, avoiding the common mistake of relying solely on the rear brake. Using the front brake last will prevent excessive wear and potential skidding in wet conditions. Ideally, begin slowing down with the rear brake, then smoothly apply the front brake while shifting your weight back. By mastering this technique, you'll become a proficient braker. The first step in fixing a flat bike tire is identifying the issue. Small punctures can cause slow leaks, making it essential to be aware of how your bike travels. If you notice bumpsiness when rotating past certain areas, it's likely a sign of a tire leak. Riding with a flat tire is dangerous and can destroy your rims. To fix a flat tire, you need to know the correct tools and techniques. A typical bike tire consists of an outer rubber tire and an inner tube. Flats often occur due to objects piercing through the outer tire and causing small holes in the inner tube. Fortunately, repairing flats is relatively easy once you patch the inner tube. You'll need a few inexpensive tools, including patches, glue, and tire removal tools. To start repairing a flat tire, remove the punctured wheel first. This can be done by hand or with the help of a bike stand. Wear gloves to protect your hands from grime and potential sharp objects. Watch videos for visual explanations on removing and replacing different types of bike tires to gain confidence. When repairing an inner tube tire puncture, ensure you check the inside of your outer tire first for any remaining sharp objects that may have caused the puncture. Allow patch glue to fully dry before reinserting the tube into the wheel. Firstly, when dealing with tire blowouts, remember to always prioritize safety by avoiding damaged or very old inner tubes. Riding with such a tube poses a significant risk of tire blowouts and accidents. Instead, consider replacing it with a new one. For smaller issues like punctures, you can try repairing the tube using glue patches. To do this effectively, spread a thin layer of glue over the affected area to ensure a tight seal. Too much glue can create gaps between the patch and the tube, leading to further damage. However, be aware that some cases may require more extensive repairs or even replacement of the entire tube. In such situations, it's often best to purchase a new one rather than trying to fix the old one. As for traffic laws, remember that cyclists are subject to similar regulations as drivers in most states. This includes adhering to speed limits, using turn signals, and obeying red lights and stop signs. Additionally, be mindful of lane-sharing rules, which may vary depending on the width of the lane. Cycling merit badge requirements are necessary because road rules differ between vehicles and cyclists, although most cyclists are treated as vehicles, so knowing rules of road is essential for safety while cycling or driving. While both road and mountain biking can seem like hard work, it's a fun part that lets you head out on bike with friends, push limits and have adventures. Knowing how to safely ride and repair bike helps complete the Cycling merit badge on your own. Now that you know these skills, you're prepared for Eagle Scout rank requirements. Many cyclists find cycling helpful in building strength and endurance through riding long distances, which teaches goal-setting and self-reachability skills. It also shows independence by planning and preparing adventures and keeping bike in good condition. Given article text here Apply an antiseptic if available, and cover it with a clean bandage daily or when dirty/wet. Concussion: Hit head in a fall accident; symptoms include confusion, headache, dizziness, nausea, blurred vision. Stop cycling immediately, seek medical attention. Blisters: Cover gripped handlebars blister daily. Popped blister: clean water, apply antibiotic ointment, sterile dressing. Sunburn: Prevent sunburn with sunscreen, hat/long sleeves. Shaded area, aloe vera/cool compress, drink water. Dehydration: Dry mouth, dizziness, fatigue; small sips water frequently, shade breaks. Heat Exhaustion/Heatstroke: Move to cool place, drink water, damp cloths. Heat exhaustion: confusion/unconsciousness; seek medical help immediately. Hypothermia: Cold exposure; cover with warm clothing, shelter, warm fluids. Shivering/stopping or confusion; seek medical help. Frostbite: Warm affected area gently using body heat/warm water, avoid rubbing. Insect Stings: Carefully remove stinger with tweezers/flat edge, apply ice, monitor for allergic reaction. Tick Bites: Remove tick as soon as possible using tweezers, washing area with soap and water, applying antiseptic. Monitor site for redness/rash, consult doctor if needed. Snakebite: Stay calm, keep bite area still/below heart, call emergency medical help immediately. Do not apply ice/cut wound/suck out venom. Being aware of poisonous plants and animals in your area is crucial for safety while hiking or biking. Knowing how to identify them helps you steer clear of potential dangers. Not only can they cause painful skin rashes, but bites from venomous creatures can be fatal. Staying vigilant about your surroundings keeps you safe on the trail. As part of the Cycling merit badge, learning first aid skills is vital for handling common problems and staying secure while biking. To prepare for this, it's essential to comprehend local laws regarding bicycles compared to motor vehicles. You'll need to discuss traffic rules that apply to bikes, including stopping at stop signs and obeying traffic signals. Bicycles must follow similar guidelines as cars, such as yielding to pedestrians and using signals. Cyclists should stop at red lights and stop signs, travel in the same direction as traffic, and use designated bike lanes when available. While laws vary by location, understanding these general rules is crucial for safe cycling practices. In many places, cyclists can ride on sidewalks, but this depends on local regulations. Motor vehicles must maintain a safe distance when passing a bicycle. Proper lane positioning, such as staying far right unless turning or avoiding hazards, and using signals before changing lanes are also critical skills to learn. When approaching intersections, slow down and be mindful of cars and pedestrians. Making eye contact with drivers can ensure they see you. These guidelines not only promote safety but also teach responsibility for yourself and others on the road. In addition to bike laws, it's vital to understand the importance of wearing proper clothing and gear while cycling, including a helmet that fits securely. The Scouting America Bike Safety Guidelines provide valuable advice for staying safe on every ride. Adjusting Your Bike for Safety and Comfort Make sure the helmet fits snugly under your chin and stays in place without wobbling.Safety Gear: Wear lightweight clothes in hot weather, bright colors to increase visibility, and layers to stay warm in cold weather. In rain, wear waterproof gear to stay dry.Watch for road hazards, ride in smooth file and follow traffic laws.Staying Safe on the Road Always wear a helmet and check your bike before riding to make sure it's in good condition. Lubricate regularly and keep an eye out for damaged or worn-out parts. Hand signals are important when turning or stopping. Stay alert to your surroundings. Fine-tuning your bike is essential for smooth operation and safety. This includes lubricating moving parts to prevent rust. To do this, apply chain lubricant to the chain and wipe off excess, then lubricate pivot points on derailleurs and brake levers. Be careful not to get lubricant on brake pads or rims. If you get a flat tire, remove the wheel from the bike and use tire levers to take the tire off the rim. Then, check for sharp objects and remount the inner tube. Finally, inflate the tire to the correct pressure. When riding, make sure your bike has reflectors, lights (if necessary), and a bell or horn. Familiarize yourself with local laws regarding bike lanes and equipment to ensure your bike is legal. Regular maintenance is key to safe riding. By following these skills, you'll ride confidently and safely. The Cycling merit badge teaches responsibility and problem-solving through activities like proper mounting, starting, and stopping techniques, as well as shifting gears, scanning, and signaling. To prepare for safe and confident riding, Scouts must master the basics of cycling. This includes completing the Cycling merit badge requirements using either road biking or trail/mixed surface biking options. The Scouting America buddy system is used to complete these requirements, which can be done on a variety of bicycles such as road bikes, mountain bikes, or manually powered cycles. For Road Biking, Scouts must take a road test with their counselor and demonstrate various skills including: - Executing left turns from the center of an urban street - Demonstrating alternate left-turn techniques during heavy traffic - Properly executing right turns - Riding safely in right-turn-only lanes - Showing curbside and road-edge riding skills - Crossing railroad tracks correctly Scouts must also complete a series of rides, including 10-mile, 15-mile, and 25-mile rides. They must make a report of their rides, listing dates and interesting things seen. After completing the requirement b for Road Biking, Scouts have two options: - Lay out a 50-mile road trip on a map and complete it in eight hours or less - Participate in an organized bike tour of at least 50 miles and complete it in eight hours or less These activities teach Scouts how to ride safely on streets, follow traffic rules, and build endurance for longer trips. They also practice advanced riding skills such as urban street skills including left turns, right turns, and riding near parked cars. To earn the Cycling merit badge, Scouts can choose between two options: Road Biking or Trail/Mixed Surface Biking. Both paths require a combination of skills and long rides. For Road Biking: * Complete six rides with varying distances (10, 15, and 25 miles) while avoiding highways. * Record interesting observations from each ride. * Finish with a 50-mile ride, either solo or as part of an organized event. * Building confidence and endurance is key to this path. For Trail/Mixed Surface Biking: * Develop mountain bike handling skills such as neutral position, shifting, and body positioning for cornering. * Take a trail safety test with your counselor, demonstrating proper etiquette and obstacle crossing techniques. * Complete five rides on approved trails, ranging from 2-8 miles each. * Plan and complete a 22-mile ride using a trail map. Both options emphasize building skills, endurance, and confidence while navigating different terrains. The Importance of Proper Bike Positioning, Shifting, and Etiquette on Trail Rides Maintain your bike's balance by sitting comfortably with your weight centered over the seat, knees slightly bent, and elbows relaxed in the relaxed riding position. When approaching obstacles or rough terrain, switch to the ready position, standing on the pedals while keeping your body balanced and prepared for sudden movements. To navigate turns, lean your bike into the turn while maintaining balance and looking through the turn to guide your movement. For climbs, use seated climbing, crouched climbing, or standing climbing techniques to adjust speed and maintain control. When descending, stay in the ready position and control your speed with both brakes to avoid accidents. Always follow trail etiquette by yielding to hikers and uphill riders, announcing yourself politely when passing, and staying on marked trails. Before crossing obstacles, decide whether to ride over them or dismount and walk, using the ready position for smaller obstacles. When riding over rocks, gravel, and roots, maintain a steady speed and relaxed grip to avoid losing control. To complete the Cycling merit badge trail rides successfully, plan your route in advance, record your progress on a log sheet, and follow posted signs and rules of trail riding. The Bicycle Log Sheet is an essential tool for tracking ride details, such as date, distance, time spent riding, and weather conditions. Keeping a log helps Scouts meet the requirements of the Cycling merit badge while creating a valuable record of their adventures. Scouts looking to challenge themselves can earn the 50 Miler award by biking 50 miles over five days, giving back through a service project, and learning bike safety and maintenance skills from the Cycling merit badge. The National Outdoor Badge for Riding is another goal for Scouts who love cycling or riding activities. This advanced award celebrates dedication to outdoor adventures and recognizes achievements in riding long distances. Earning it helps develop endurance and appreciation for the outdoors. To earn the 50 Miler award, Scouts must first complete the Cycling merit badge, which builds confidence and knowledge needed for safe rides. The badge can be upgraded with gold or silver devices as Scouts log more miles, showing progress and commitment to riding adventures. The Cycling troop program feature helps Scouts learn bike skills and safety while enjoying outdoor activities. It combines meetings, games, and outings to teach Scouts how to use bikes for transportation, exercise, and fun. This program encourages physical fitness and promotes environmentally friendly ways to get around. Meetings are divided into essential, challenging, and advanced topics to fit different skill levels. Scouts learn skills like changing tires, adjusting brakes, and planning for longer rides. The program ends with a main event, such as a day ride or an overnight trip. A bicycle safety crossword puzzle is a fun way to start a meeting about bike safety, introducing key terms like "helmet," "brake," and "reflector." This activity ties in well with the Cycling merit badge by reinforcing safety topics Scouts need to know. Scouts BSA offers an exciting opportunity for youth aged 11-17 to build character, learn leadership, and develop outdoor skills through activities like camping, hiking, and earning merit badges. The Cycling merit badge is one such program that teaches safe bike riding and maintenance, with options for road biking or mountain biking. To earn the badge, you'll need access to a bike in good working condition and will complete six rides of increasing distances, including a 50-mile ride for road biking or a 22-mile ride for mountain biking. You'll also learn basic bike repairs, safety skills like checking your bike for safety and using proper hand signals, and the importance of wearing a helmet. The program emphasizes teamwork, service, and personal growth while teaching skills that last a lifetime. Learning to ride safely and confidently can enhance your overall cycling experience through the completion of this Cycling merit badge. The merit badge focuses on bike safety rules and etiquette, which helps you navigate roads and trails effectively. As part of the process, you will practice using hand signals and checking for potential hazards. Additionally, you'll be able to tackle difficult terrain such as hills, rough roads, and unexpected obstacles with ease. A key component of this merit badge is participating in longer rides, which can improve your endurance and confidence. Through planning routes, recording experiences, and enjoying scenic views, these long trips provide an opportunity for exploration and new adventures. The BSA buddy system provides a safe and fun way to complete these rides with a friend while keeping safety at the forefront.