



Fire Safety

Merit Badge Study Guide

• Organize thoughts to prepare • Take notes • Keep track of progress

Merit badge counselors may not require the use of this or any other workbook. Scouts must still demonstrate that have learned the material and can perform each required skill. If a requirement directs you to discuss, show, "tell, explain, demonstrate, identify, or anything similar, the requirement must be completed as written. No one may add to or remove anything from the official requirements listed in Scoutbook or on scouting.org/skills/merit-badges.

The requirements were revised in 2025 • This guide was updated in December 2025.

Scout's Name: _____ Unit: _____

Counselor's Name: _____ Phone No.: _____ Email: _____

Read the [merit badge pamphlet](#).

View helpful online video resources for each requirement at <http://scouting.org/merit-badges/fire-safety>.

1. Science of and Hazards of Fire. Do the following:

- (a) Explain the concept of fire.

- (b) Name the parts of the fire tetrahedron and the products of combustion.

- (c) Describe the life cycle of a fire.

- (d) Explain the three methods of heat transfer.

2. Fire Extinguishers. Do the following:

- (a) Explain the different classes of fires.

- (b) Identify the different classes of fire extinguishers and which should be used for each class of fire.

- (c) Demonstrate how to use a fire extinguisher and a fire blanket.

Notes:

3. Fire-related Injuries. Do the following:

- (a) Explain and demonstrate the technique of stop, drop, roll, cool, and call.

- (b) Describe how clothing fires occur, how to prevent them, and how clothing can prevent or contribute to burn injuries.

- (c) Identify the most frequent causes of burn injuries and how to prevent them.

- (d) Review the prevention of, symptoms and signs of, and treatment of airway burns and carbon monoxide (CO) poisoning.

4. Origins of Fires. Do the following:

- (a) Explain the four classifications of fire origin and give an example of each.

Natural	 Example:
Accidental	 Example:
Incendiary	 Example:
Undetermined	 Example:

- (b) Describe how a fire classified as incendiary might lead to criminal prosecution of a person charged with arson.

5. Fire Safety at Home. Do the following:

- (a) Describe how to prevent the frequent causes of home fires

Unattended cooking	
Electricity	
Electricity	
Smoking	
Clothes dryer	
Rechargeable batteries	

- (b) Describe how to prevent frequent causes of seasonal and holiday-related home fires, including fires related to home heating, holiday trees, candles, and fireworks.

Home heating	
Holiday trees	
Candles	
Fireworks	

- (c) Demonstrate how to safely light and extinguish a candle. Discuss with your counselor, then with your family, how to safely use candles.

- (d) Using the Home Fire Safety Checklist in the *Fire Safety* merit badge pamphlet or one approved by your counselor, and with the help of an adult, inspect a home (or a similar building near where you live or at a camp) for fire safety hazards. Present your completed checklist to your counselor and discuss your findings.

- (e) Determine if, and what types of, smoke and CO alarms are required in homes in your community. List what types of smoke and CO alarms your home has, their locations, and their expiration dates.

- (f) Demonstrate maintenance of smoke and CO alarms to your counselor and review plans to replace expired alarms.

- (g) Develop a home fire-escape plan and a fire-drill schedule with your family, draw a floor plan of your home with exits marked and a map showing your family meeting point, and conduct a home fire drill.

- (h) Explain what to do and what not to do if you smell natural gas and if you smell smoke.

- (i) Explain how you would report a fire to have the fire department respond.

6. Safety with Flammable and Combustible Liquids. Do the following:

- (a) Explain what flammable and combustible liquids are commonly used in homes and how to safely store them.

- (b) Describe the safe way to refuel a liquid-fueled engine, such as a lawn mower, outboard motor, farm machine, or automobile with fuel from an approved container.

- (c) Describe the options available for safely disposing of unwanted flammable, combustible, and hazardous substances in your community.

7. Fire Safety in Public Buildings. Do the following:

- (a) Explain how public buildings are designed for fire safety.

- (b) Explain what fire safety systems and equipment can be found in public buildings.

- (c) Explain what fire safety precautions you should take when you are in a public building.

8. Fire Safety at Camp. Do the following:

- (a) Explain how the Leave No Trace Seven Principles apply to camping fires.

- (b) Demonstrate lighting a match safely, the proper way to extinguish it, and to dispose of it. Explain the similarities and differences between safety matches and strike-anywhere matches.

- (c) Explain and demonstrate making sparks with flint and steel or with a ferro rod and catching a spark to create a flame. Extinguish the flame safely using one of principles of the fire tetrahedron.

- (d) Demonstrate the safe way to start a charcoal fire.

- (e) Describe three common campsite fire lays. Collect, prepare, and set up tinder, kindling, and fuel for a campfire following the Leave No Trace Seven Principles. Ignite your fire lay and safely extinguish your fire.

- (f) Demonstrate using a camp stove.

Notes:

- (g) Explain how to set up and keep a campsite safe from fire.

- (h) Develop a lesson plan to teach a fire safety skill or topic, such as lighting a candle or a match or a charcoal fire or a lantern or a camp stove or using flint and steel or setting up a fire lay. Review your lesson plan with your counselor. Teach your skill or topic to one or more Scouts using the EDGE method.

9. Wildland Fires. Do the following:

- (a) List causes of wildland fires and ways to prevent them.

- (b) Explain the social, economic, and environmental consequences of wildland fires.

10. Careers. Do ONE of the following:

- Visit a fire station in-person. Identify the various types of fire service vehicles. From the firefighters you meet during your visit, learn about the fire prevention activities in your community and about their careers. Discuss with your counselor what you learned during your tour and interviews.

- (b) Identify three career opportunities that would use skills and knowledge in the field of fire safety.

1.
2.
3.

Pick one and research the training, education, certification requirements, experience, and expenses associated with entering the field. Research the prospects for employment, starting salary, advancement opportunities, and career goals associated with this career.

Career: _____

Training	
Education	
Certification Requirements	
Experience	
Expenses associated with entering field	
Prospects for employment	
Starting salary	
Advancement opportunities	

Career goals associated with this career	

- Discuss what you learned with your counselor and whether you might be interested in this career.

Notes:

- (b) Identify how you might use the skills and knowledge in Nature to pursue a personal hobby. Research the additional training required, expenses, and affiliation with organizations that would help you maximize the enjoyment and benefit you might gain from it.

Training	
Expenses	
Affiliation with Organizations	

- Discuss what you learned with your counselor and share what short-term and long-term goals you might have if you pursued this. _____

Work Roles	
Short-term goals	
Long-term goals	

Check safety steps that are being taken in your home. Write N/A if the item is not applicable. Items left blank may present a safety hazard. This list provides some sample safety steps you might take. See your Safety Merit Badge pamphlet and counselor for more information. Ask your parent or guardian before making any changes.

Stairways, Halls, and Outdoor Steps

- Stairways with three or more steps have a strong handrail and slip resistant finish.
- Stairways & halls are kept free from boxes, toys, shoes, brooms, tools, and other tripping hazards.
- Gates at top and bottom of stairs prevent children from falling.
- The head and foot of stairs have no small or loose rugs.
- Stair carpeting or covering is fastened securely.
- Stairways & halls have good lighting, controllable at each end.

Kitchen

- Matches are kept where children cannot get them.
- Emergency numbers are posted next to the telephone, including 911 and poison control.
- Knives & sharp instruments are kept in knife drawers or holder.
- Can openers don't leave sharp edges on cans.
- Disinfectants & cleaning products are out of reach of children.
- Pan handles are turned away from stove edges.
- Spilled grease, water, or bits of food are wiped up immediately.
- Pot holders are located near the stove, within easy reach.
- A dry chemical fire extinguisher is mounted near the stove.

Attic and Basement

- Ladder is strong, solid, and sturdily constructed.
- Stairway is sturdy and well lighted.
- Children keep skates and play gear in a specific place.
- Walls and beams are free from protruding nails.
- Fuses or circuit breakers are the proper size.
- Rubbish & flammable materials are in covered metal cans.
- Wastepaper is kept away from furnace and stairs.

Living Room and Dining Room

- Furniture is placed to allow easy passage in an emergency.
- Before bedtime, furniture placement is checked for orderliness.
- Furniture and woodwork solid, in good repair, and free from splinters and rough spots.
- Fireplace screen fits snugly.
- Rugs are fastened or laid on non-slip pads.
- Rugs are kept from curling at their edges.
- Wax on floors is thoroughly buffed.
- Fire in fireplace is extinguished at bedtime.
- Candles are in stable holders and fully extinguished after use, before bedtime, or before leaving home.

Bathroom

- Tub and shower are equipped with strong handholds.
- Tub floor has non-slip surface.
- Poisons and dangerous chemicals are marked, sealed shut in original containers, and out of reach of children.
- Medicines are out of reach of children in childproof containers.
- No one takes medicine in the dark.

Bedroom

- Smoke alarm has fresh battery or secure electrical connection & is tested regularly.
- Carbon monoxide detector has fresh battery or secure electrical connection and is tested regularly.
- Furniture placement for clear passage between bed and door.
- Light switch or lamp is within easy reach from bed.
- A night-light illuminates bedroom or hall.
- Bureau and dresser drawers are closed when not in use.
- Bar across upper bunk beds helps prevent falls.
- Children are taught not to lean against windows or screens.
- Low sill windows have sturdy screens to prevent children from falling out.
- Smoking in bed is prohibited.
- Gas and electric heating devices are turned off at bedtime.

Nursery

- Bars on cribs are closely spaced – no more than 2 3/8" apart so baby's head cannot slip between them.
- Crib is approved by Consumer Products or similar.
- Crib is free from sharp edges or corners.
- Crib does not have a "drop" side.
- Sleeping garments and covers keep baby warm without danger of smothering.
- Pillows are kept out of bassinet or crib.
- No thin, plastic material is in or near the crib.
- No toys or objects in or near the crib or within reach of any child under 3 are less than 1 inch in diameter and 2 inches long.
- No toys or objects have small parts that can be removed.
- Children are taught not to give marbles, etc. to younger children.
- Toys are sturdy, do not come apart easily, & have no sharp edges or points.
- Nontoxic paint is used on baby furniture and toys.
- All houseplants are nonpoisonous.

Stoves, Furnaces, and Heaters

- Stoves are away from curtains.
- Stoves & furnace pipes and flues are inspected & cleaned annually.
- Gas burners are properly adjusted and free from leaks.
- Gas water and space heaters are equipped with vents or flues.
- Water heater or boiler has a safety valve & is checked yearly.
- Water heater temperature is set below 120 degrees Fahrenheit to reduce the risk of serious burns.
- Flames of gas burners are protected from drafts.
- Insulating shield protects woodwork within 18" of furnace, etc.
- Keep flammable materials away from stoves, furnaces, etc.
- A wrench is stored near the shut-off valve of outside gas line.
- The flue is opened before using the fireplace.

Porch, Yard, and Garage

- Railings and banisters are sound and inspected periodically.
- Steps and walks are kept free from ice and snow.
- Yard/play space are free from holes, stones, glass, etc.
- Tools and dangerous articles are out of reach of children.
- Dangerous products & chemicals are kept in original containers in locked storage areas.
- Wires and low fences are brightly painted or clearly marked.
- Wells, cisterns, and pits are kept securely covered.
- Disposable materials are not burned outside.
- An area is marked off in the garage for bicycles, wagons, etc.
- Lawn mower is equipped with proper safeguards.

Workshop

- Good ventilation exists, especially when sanding or painting.
- Safety goggles or face mask, and hearing protection are worn when working with or around power tools, and an appropriate eyewash is available.
- Baking soda is kept handy to neutralize acid burns.
- All electrical tools are either grounded with three-wire plugs or are double-insulated.
- Work area is well lit & free of clutter, scraps, rags.
- All tools have a place & are in their place.
- Guards are in place on all power tools.
- A push stick is available for use with power saws.
- Tools are unplugged when not in use and before changing blades, servicing or repairing.

Electrical Devices and Fixtures

- Electrical fixtures and appliances are located & used beyond arm's length of the sink, stove, tub, shower, or other grounded metal unless outlet is protected by a ground-fault interrupter.
- Do not touch electrical fixtures or appliances with wet hands.

- Disconnect seldom-used appliances when not in use.
- Household appliances are disconnected before repairs.
- Light bulbs are installed in all lamp sockets.
- All pull-type sockets have an insulating link.
- Frayed or worn electric cords are promptly replaced.
- Long trailing cords are not in evidence.
- Cords are kept out from under rugs, doors, and furniture.
- UA-approved extension cords are the proper size.
- Children are taught never to touch electric sockets or fixtures.
- Fuses are adequate for the load and are not bypassed.
- Circuit breakers are labeled and not overloaded.

General

- Home has smoke and Carbon Monoxide detectors, with at least one smoke detector in each bedroom, near the kitchen, and in the basement & garage.
- Everything has a place and is in its place.
- Stepladders are in good repair and stored out of the way.
- Window screens and storm windows are securely fastened.
- Guns are stored unloaded and in locked cases.
- Guns and ammunition are stored separately.
- Children are permitted to use only blunt-end scissors.
- Housework clothing has no drooping sleeves, sashes, or frills.
- Shoes worn for housework have low heels.
- All shoes are in good repair.
- Kerosene, gasoline, paint thinners, and other volatile materials are stored outside in special, clearly marked metal containers.
- Oil mops, dust rags, painting equipment, and other oily materials are stored outside in open metal containers.
- Everyone turns on a light before entering a dark room.
- Matches are extinguished before they're thrown away.
- Children are never permitted to play with matches.
- Fire extinguishers are readily available and in good working order.

For Emergency

- Know how to get emergency help (911, poison control, etc.).
- Be able to find water, gas, & electric shutoffs. Check annually.
- First aid kit approved by your doctor/American Red Cross.
- Know basic first aid procedures.
- Have a fire escape plan from your home.
- Emergency water supply.
- Handheld flashlights readily available.
- In earthquake-prone areas, make sure that the water heater and bookcases are bolted to the wall