



# Fire Safety

## Merit Badge Workbook



This workbook can help you but you still need to read the merit badge pamphlet.  
This Workbook can help you organize your thoughts as you prepare to meet with your merit badge counselor

**Merit Badge Counselors may not require the use of this or any similar workbooks.**

You still must satisfy your counselor that you can demonstrate each skill and have learned the information. You should use the work space provided for each requirement to keep track of which requirements have been completed, and to make notes for discussing the item with your counselor, not for providing full and complete answers.

If a requirement says that you must take an action using words such as "discuss", "show", "tell", "explain", "demonstrate", "identify", etc, that is what you must do.

No one may add or subtract from the official requirements found on [Scouting.org/meritbadges/](http://Scouting.org/meritbadges/).  
The requirements were last revised on January 1, 2024 • This workbook was updated in January 2024.

Scout's Name: \_\_\_\_\_ Unit \_\_\_\_\_ Date Started \_\_\_\_\_

Counselor's Name: \_\_\_\_\_ Phone No.: \_\_\_\_\_ Email: \_\_\_\_\_

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

1. Do the following:

- a. Demonstrate the technique of stop, drop, cover, roll, cover your face, and cool.

Explain how burn injuries can be prevented.


- b. List the most frequent causes of burn injuries.


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c. Explain how to safely store flammable and combustible liquids.


Describe the options available for safely disposing of unwanted hazardous substances in your community.


2. Explain the concept of fire and name the parts of the fire tetrahedron. Name the products of combustion. Describe the life cycle of a fire.

Explain the concept of fire


Name the parts of the fire tetrahedron.


Name the products of combustion.


Describe the life cycle of a fire.


- 3. Name the most frequent causes of fire in the home and give examples of ways they can be prevented. Include a discussion about fires caused by smoking in the home, cooking, candles, fireplaces, and electrical appliances.


4. Do the following:

- a. Explain the four classifications of fire origin (accidental, natural, incendiary, or undetermined) and give an example of each.

Accidental

Example:	

Natural

Example:	

Incendiary

Example:	

Undetermined

Example:	

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


- c. Explain some of the social, economic and environmental consequences that result from incendiary fires that damage or destroy structures and wildlands.

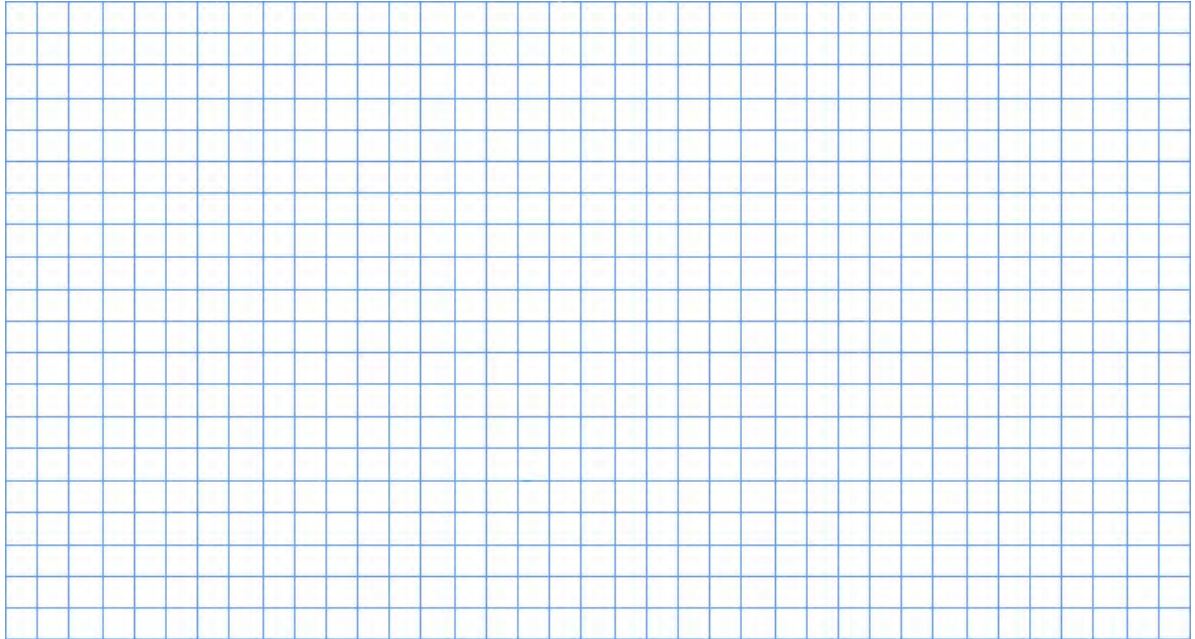

- 5. List the actions and common circumstances that cause seasonal and holiday related fires.


Explain how these fires can be prevented.


- 6. Conduct a home safety survey with the help of an adult.  
(See the Sample Home Safety Checklist at the end of this workbook.)

Then do the following:

- a. Draw a home fire escape plan, create a home fire-drill schedule, and conduct a home fire drill.
  - Home fire escape plan.



Home fire-drill schedule


- Conduct a home fire drill.
- b. Identify the location of all smoke alarms in your home and confirm that none are more than 10 years old.


- Test each smoke alarm and demonstrate regular maintenance of a smoke alarm.

c. Explain what to do when you smell natural gas and when you smell smoke..

Gas:	
Smoke	

d. Explain how you would report a fire to have the fire department respond.


e. Explain what fire safety equipment can be found in public buildings.


f. Explain who should use fire extinguishers and when these devices can be used.


g. Explain how to extinguish a stovetop pan fire.


h. Explain what fire safety precautions you should take when you are in a public building.


7. Do the following:

- a. Demonstrate lighting a match safely.
- Demonstrate lighting a match safely,
- the proper way to extinguish it and to dispose of it.
- b. Demonstrate the safe way to start a charcoal fire.
- c. Demonstrate how to safely light a candle.

Discuss with your counselor how to safely use candles.


8. Explain the difference between combustible and noncombustible liquids and between combustible and noncombustible fabrics.

Liquids:




Fabrics:


9. Do the following:

- a. Describe for your counselor the safe way to refuel a liquid fueled engine, such as a lawn mower, weed eater, outboard motor, farm machine, or an automobile with gas from an approved gasoline container.
- b. Demonstrate the safety factors, such as proper ventilation, for auxiliary heating devices and the proper way to fuel those devices.

10. Do the following:

a. Explain the costs associated with outdoor and wildland fires and how they can be prevented.

Costs:


How to prevent them:


- b. Demonstrate setting up and putting out a cooking fire.
- c. Demonstrate using a camp stove and lantern.
- d. Explain how to set up a campsite safe from fire.


- 11. Visit a fire station.

Identify the various types of fire trucks and describe the functions of each.


Find out about the fire prevention activities in your community during your visit.


- 12. Determine if smoke detectors are required in all dwellings within your municipality. If so, explain which specific types are required. Tell your counselor what type of smoke detectors your house has or needs.


- 13. Choose a fire safety related career that interests you and describe the level of education required and responsibilities of a person in that position.

Career:

Education:

Responsibilities:


Tell why this position interests you.


When working on merit badges, Scouts and Scouters should be aware of some vital information in the current edition of the *Guide to Advancement* (BSA publication 33088). Important excerpts from that publication can be downloaded from <http://usscouts.org/advance/docs/GTA-Excerpts-meritbadges.pdf>. You can download a complete copy of the *Guide to Advancement* from <http://www.scouting.org/filestore/pdf/33088.pdf>.

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