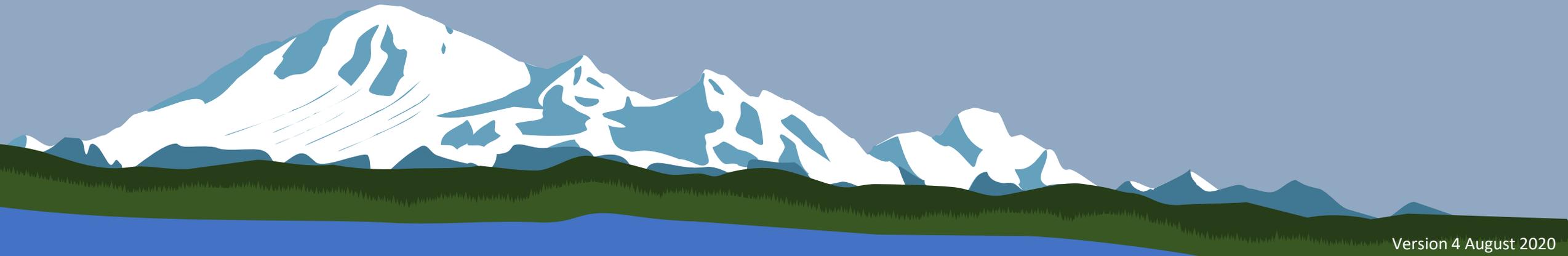
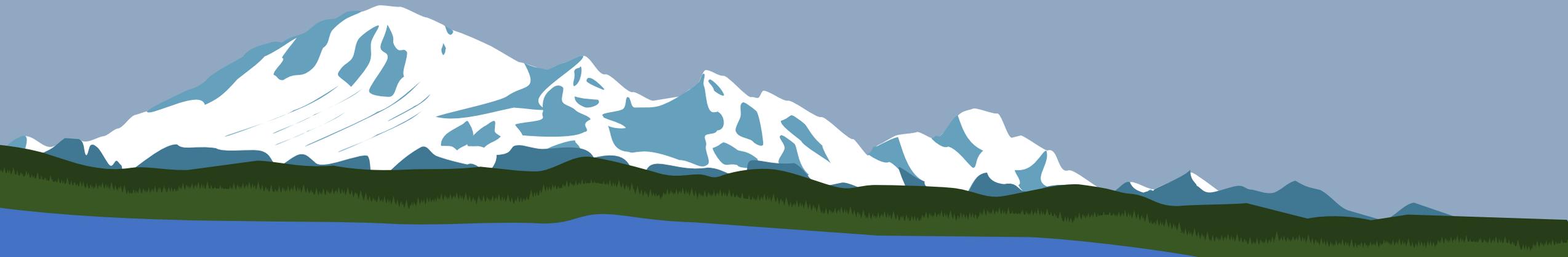


Fire Safety Merit Badge



Index

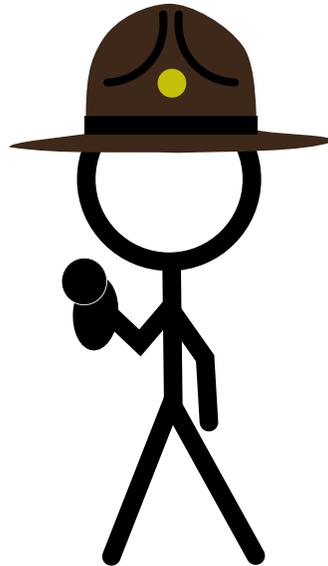
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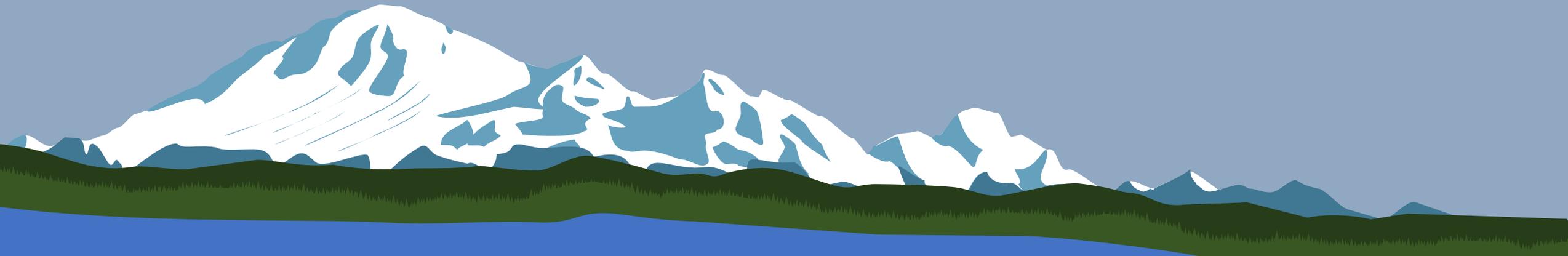
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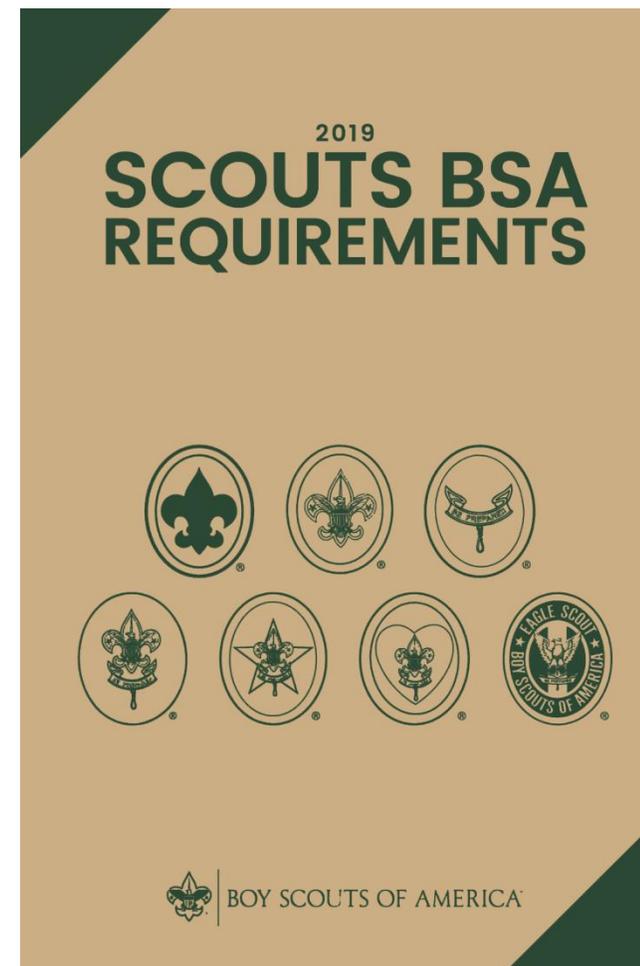
Merit Badge Requirements



Requirements

Requirements

- Merit Badge requirements are taken from:
2019 Scouts BSA™ Requirements Book

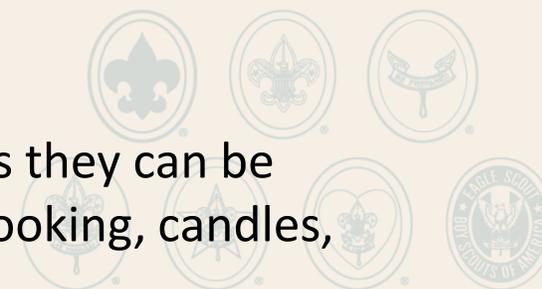


Requirements

Requirements

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.
 - c. Explain how to safely discard and store flammable liquids.
2. Explain the chemistry and physics of fire. Name the parts of the fire tetrahedron. Explain why vapors are important to the burning process. Name the products of combustion. Give an example of how fire grows and what happens.
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. Explain the role of human behavior in the arson problem in this country.

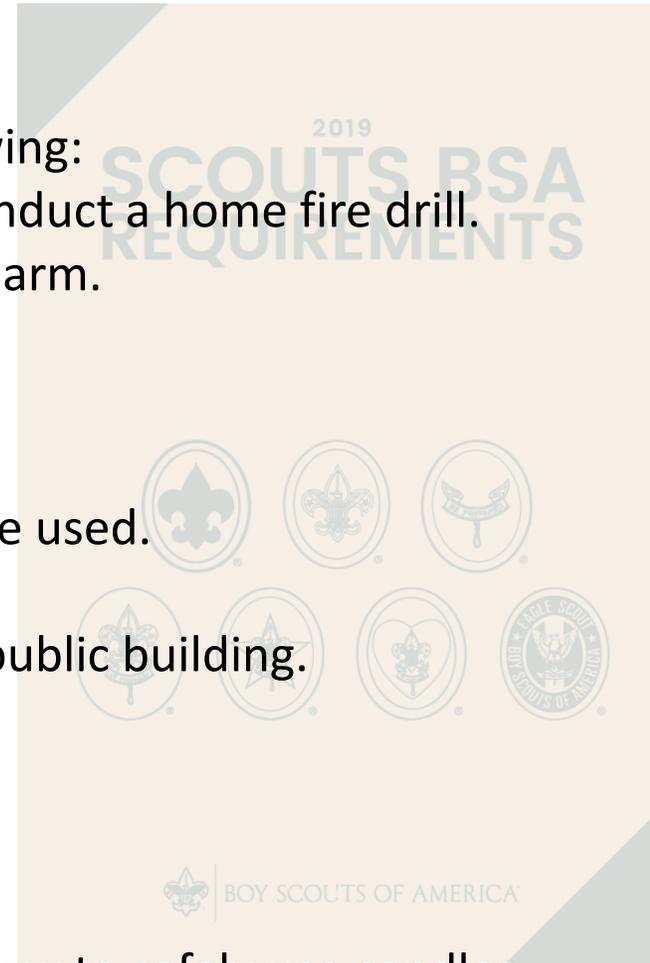
2019
SCOUTS BSA
REQUIREMENTS



Requirements

Requirements

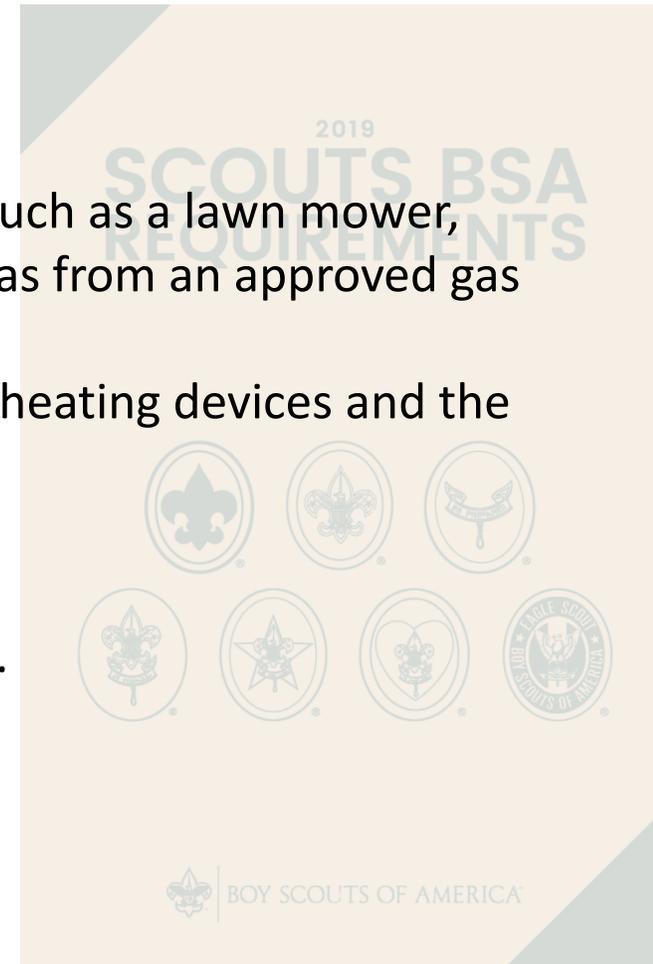
5. List the actions and common circumstances that cause seasonal and holiday-related fires. Explain how these fires can be prevented.
6. Conduct a home safety survey with the help of an adult. Then do the following:
 - a. Draw a home fire-escape plan, create a home fire-drill schedule, and conduct a home fire drill.
 - b. Test a smoke alarm and demonstrate regular maintenance of a smoke alarm.
 - c. Explain what to do when you smell gas and when you smell smoke.
 - d. Explain how you would report a fire alarm.
 - 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 grease 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.
 - 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.



Requirements

Requirements

8. Explain the difference between combustible and noncombustible liquids and between combustible and noncombustible fabrics.
9. Do the following:
 - a. Describe for your counselor the safe way to refuel a liquid fuel engine, such as a lawn mower, weed eater, an outboard motor, farm machine, or an automobile with gas from an approved gas can.
 - 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 cost of outdoor and wildland fires and 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.



Requirements

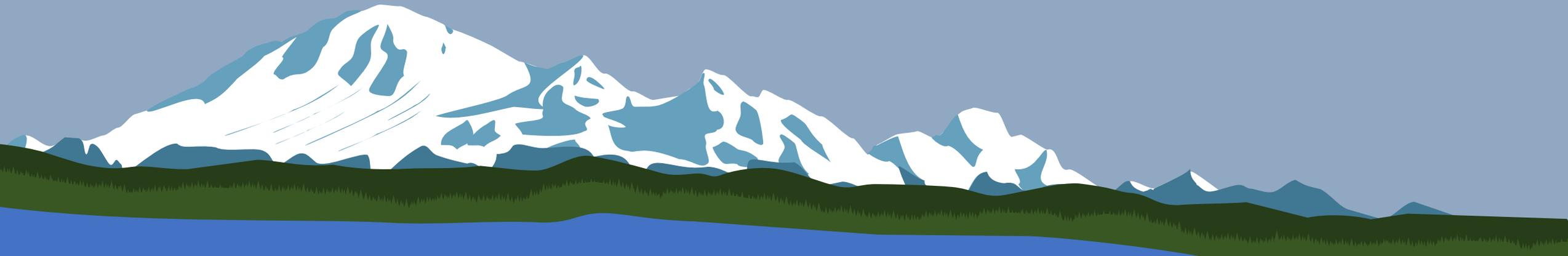
Requirements

11. Visit a fire station. Identify the types of fire trucks. Find out about the fire prevention activities in your community.
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. Tell why this position interests you.



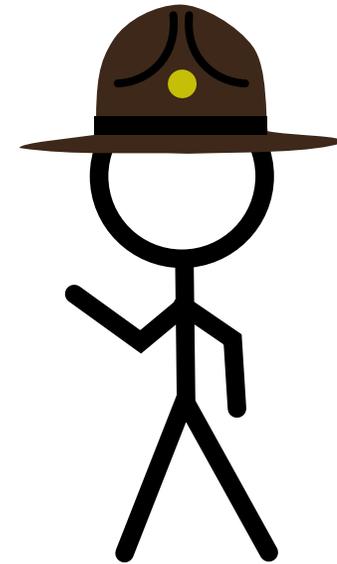


Merit Badge Intro



Merit Badge Intro

Instructor Introduction



Merit Badge Intro

Needed for Course

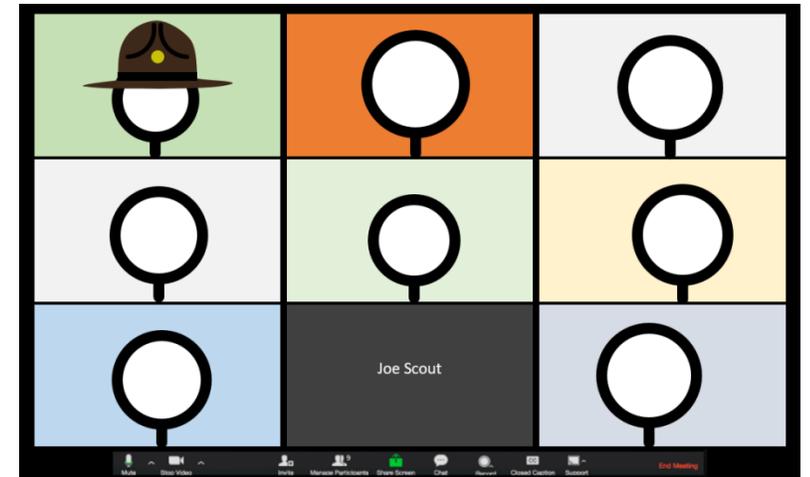
- Merit Badge Blue Card filled out and signed by your Scoutmaster
 - or other virtual agreement
- Merit Badge Pamphlet
- Scout Uniform
- A positive Scouting focus and attitude



Merit Badge Intro

Virtual Meetings

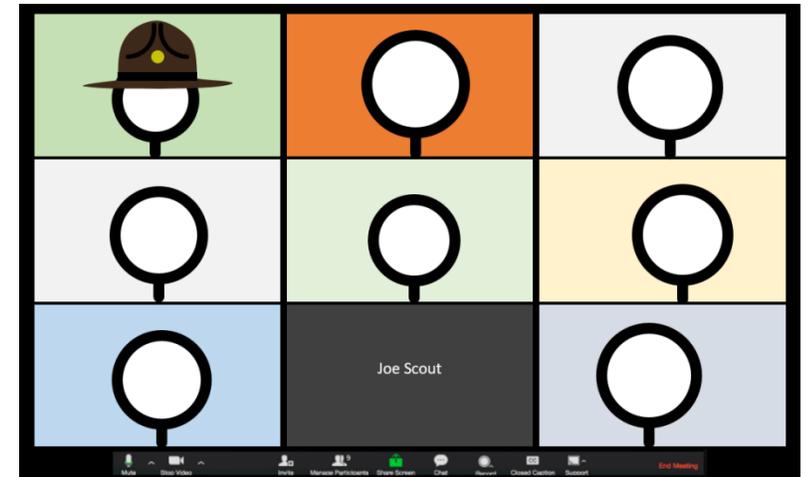
- Use your **REAL Name** and **Troop Number** if you want credit
This is how we take attendance
- MUTE yourself unless speaking to the group
- Please turn your video on so we can see you
- No Chat SPAMMING
- If you need to go pee, go
- If something isn't working, please let us know!



Merit Badge Intro

Virtual Meetings

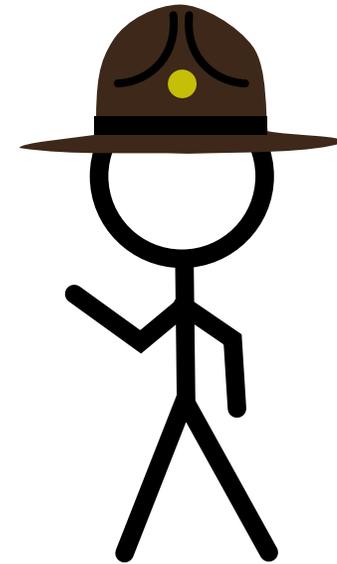
- We can't do ALL the requirements virtually
- Option 1 – Partial Completion
- Option 2 – Completion – need proof
- Please send completed homework **AFTER** the final class
- Tell us who we should CC about completion



Merit Badge Intro

Course Overview

- We will cover most of the requirements for this Merit Badge in class
- We need proof that you completed these requirements
 - Please turn in a completed [Workbook](#) if possible
This makes it easier on the counselor
 - If you can't complete a [Workbook](#), please contact your counselor for alternatives

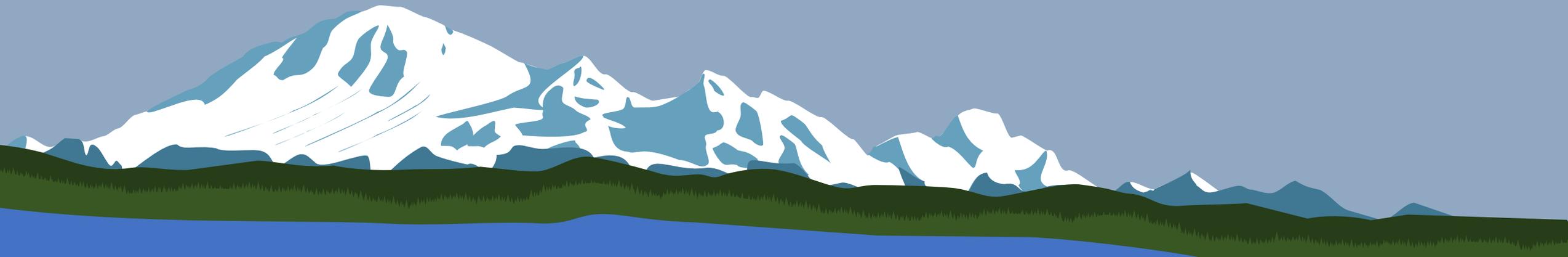


Merit Badge Intro

What is Fire Safety?



Fire Safety

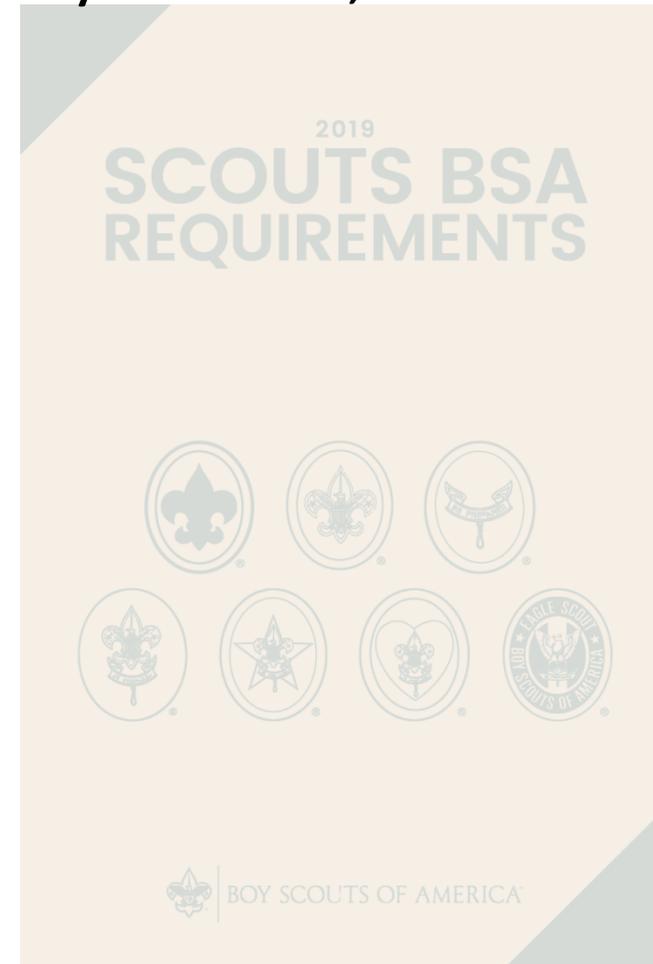


Fire Safety

Requirement 1a - Stop, Drop, Cover, Roll

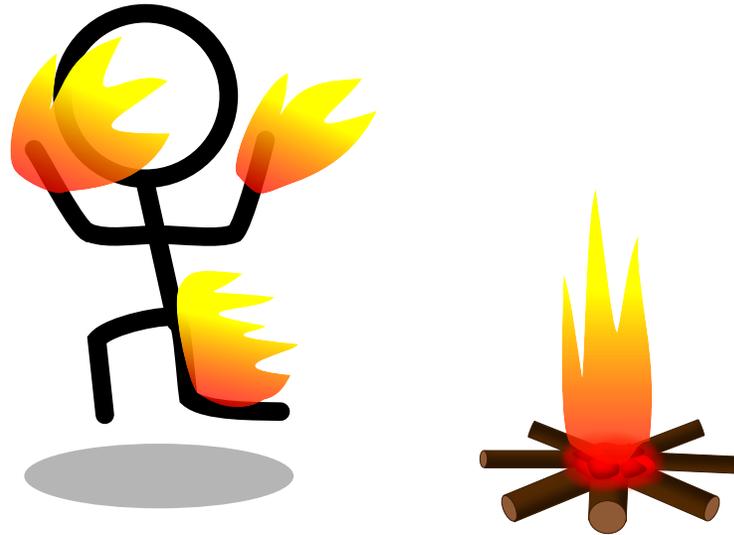
Demonstrate the technique of stop, drop, cover, roll, cover your face, and cool.

Explain how burn injuries can be prevented.



Fire Safety

Stop, Drop, Cover, Roll



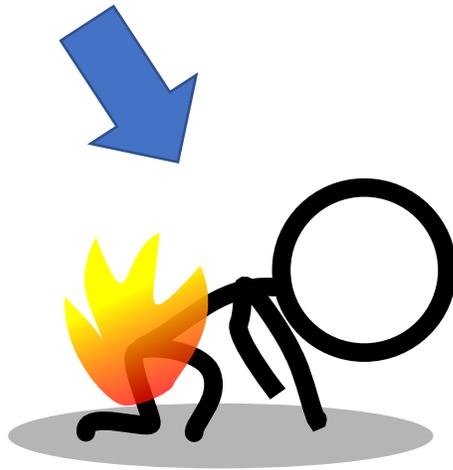
Running results in increased inhalation and fanning of flames

Fire Safety

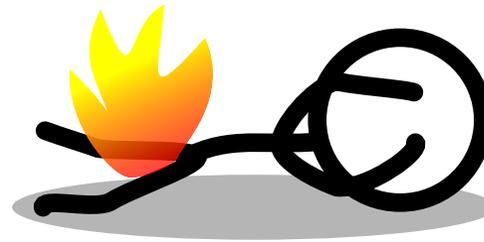
Stop, Drop, Cover, Roll



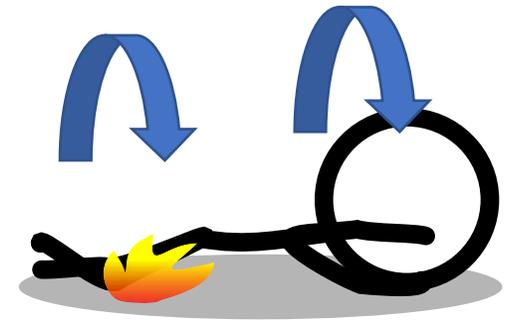
Stop



Drop



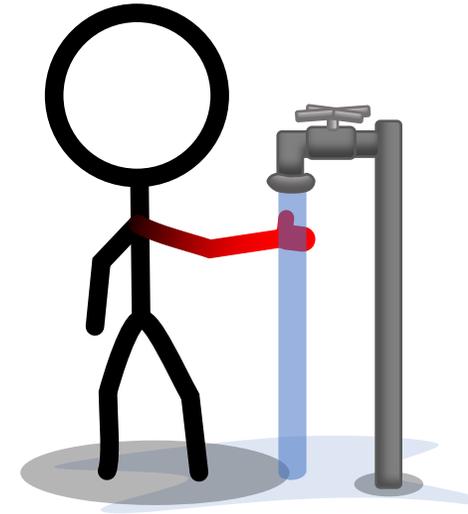
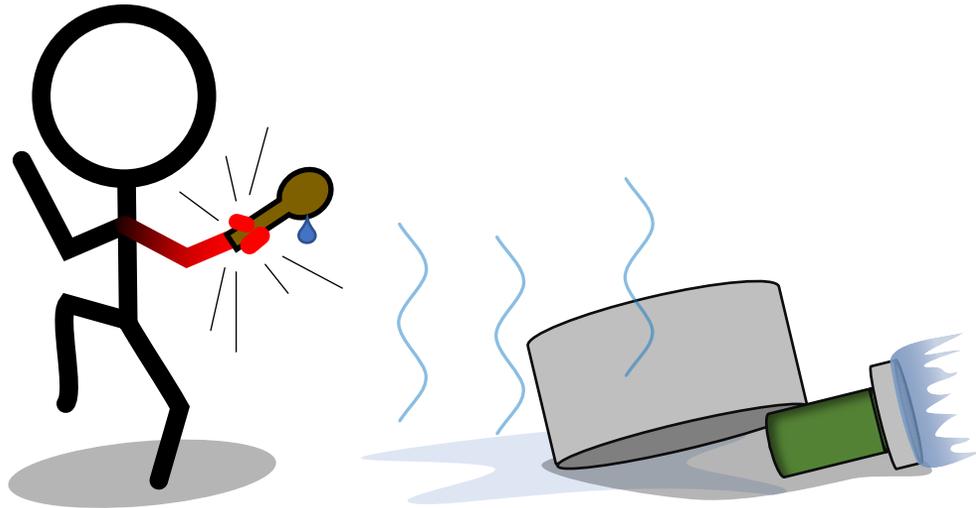
Cover



Roll

Fire Safety

Cooling



Cool for 10-15 Minutes

Fire Safety

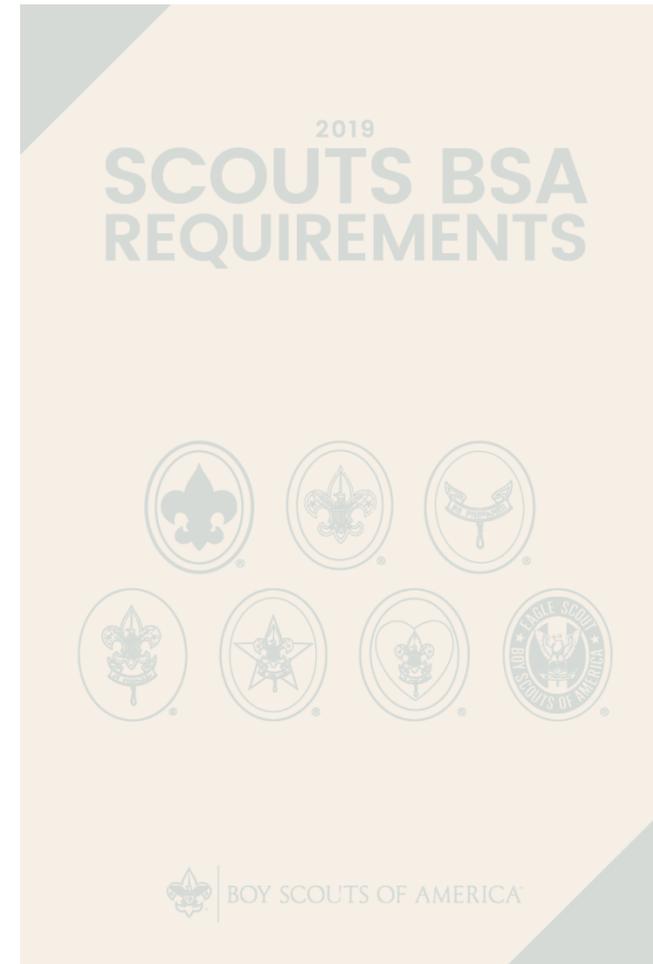
Burn Injuries – Prevention

- **Be “alarmed”**
Install and maintain smoke alarms in your home
- **Have an escape plan**
Create and practice a family fire escape plan
- **Cook with care**
Use safe cooking practices
- **Check water heater temperature**
Set your water heater’s thermostat to 120 degrees Fahrenheit or lower

Fire Safety

Requirement 1b - Causes of Burn Injuries

List the most frequent causes of burn injuries.



Fire Safety

Burn Injuries – In the US

- Someone dies in a fire every 2 hours in the US (2000)
- Someone is injured every 23 minutes by fire in the US
- 1.1 million burn injuries require medical attention per year
 - 50,000 require hospitalization
 - 20,000 have major burns
 - 4,500 of these people die
- 10,000 people die every year of burn-related infections
- Only 60 percent of Americans have an escape plan
 - Only 25 percent of these have practiced it
- Smoke alarms cut your chances of dying in a fire in half

Fire Safety

Causes of Burn Injuries

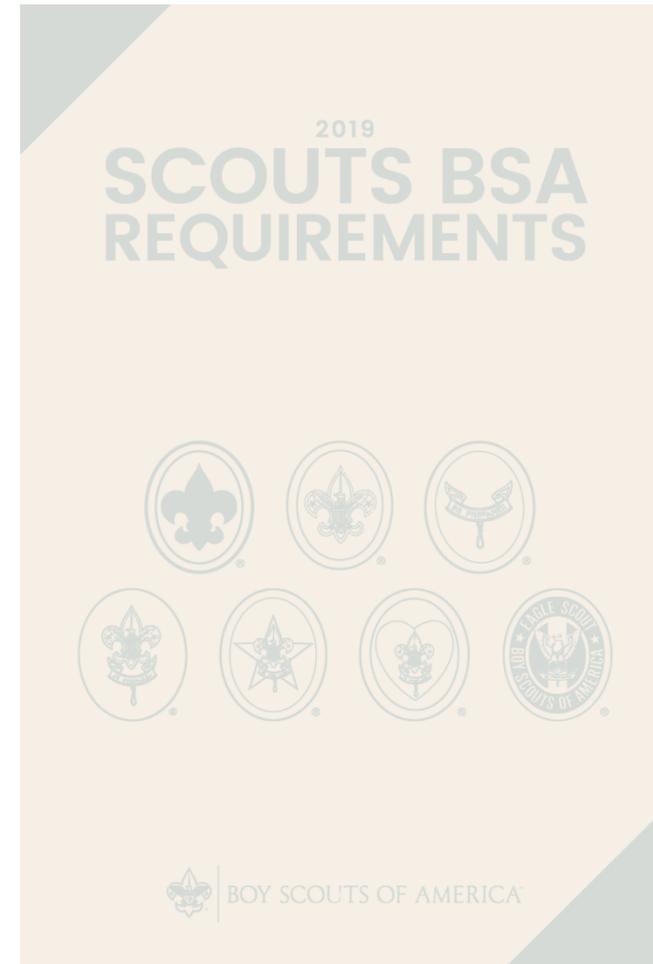
- 43% Fire/Flame
- 34% Scald
- 9% Contact
- 4% Electrical
- 3% Chemical
- 7% Other



Fire Safety

Requirement 1c - Flammable Liquids

Explain how to safely discard and store flammable liquids.



Fire Safety

Flammable Liquids

- Flammable liquids release vapors that readily ignite
 - Camp fuel
 - Rubbing alcohol
 - Lighter fluid
 - Linseed oil
 - Gasoline
 - Kerosene
 - Diesel
 - Acetone
 - Paint thinner and turpentine
 - Aerosol cans

Fire Safety

Flammable Liquids - Possible Ignition Sources

- Open flames, such as candles and stoves
- Embers or sparks from fire
- Cigarettes and cigars
- Open flames from torches, pilot lights or heating units
- Sparks from electrical tools
- Welding tools and machinery
- Hot surfaces such as furnaces or boilers
- Static electricity
- Sparks from grinding or crushing other materials

Fire Safety

Flammable Liquids – Disposal

- Place in metal or other appropriate container
- Container needs to be properly sealed as vapors are flammable
- Clearly label container
- Inform others of container
- Have adult dispose of liquid appropriately

Fire Safety

Flammable Liquids – Saturated Materials

- Rags and other debris soaked in flammable liquids are very dangerous
- Exposure to heat or sunlight can cause spontaneous ignition
- Seal in metal container marked with flammable liquid

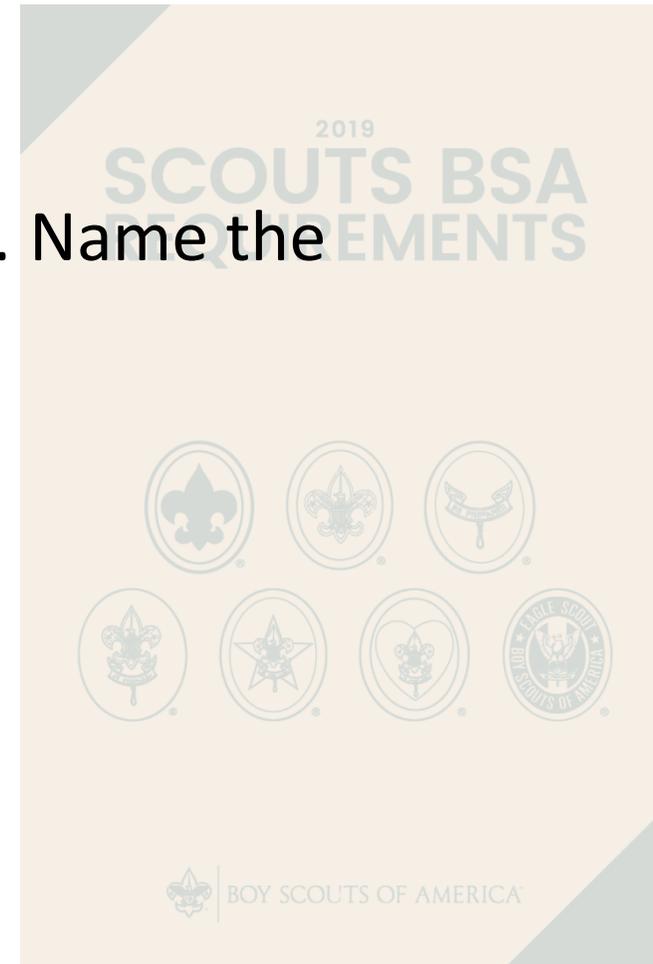
Fire Safety

Requirement 2 - Chemistry and Physics of Fire

Explain the chemistry and physics of fire. Name the parts of the fire tetrahedron.

Explain why vapors are important to the burning process. Name the products of combustion.

Give an example of how fire grows and what happens.



Fire Safety

Chemistry and Physics of Fire

- Fire is a chemical reaction between oxygen and vapors (volatiles)
- When oxygen and vapors interact
 - Heat and light is emitted
 - This is in the form of flames

Fire Safety

Chemistry and Physics of Fire

- Volatile vapors are often created because of heat
 - Some vapors are released at room temperature (gasoline)
 - Other substances require a lot of heat to release vapors (wood)

Fire Safety

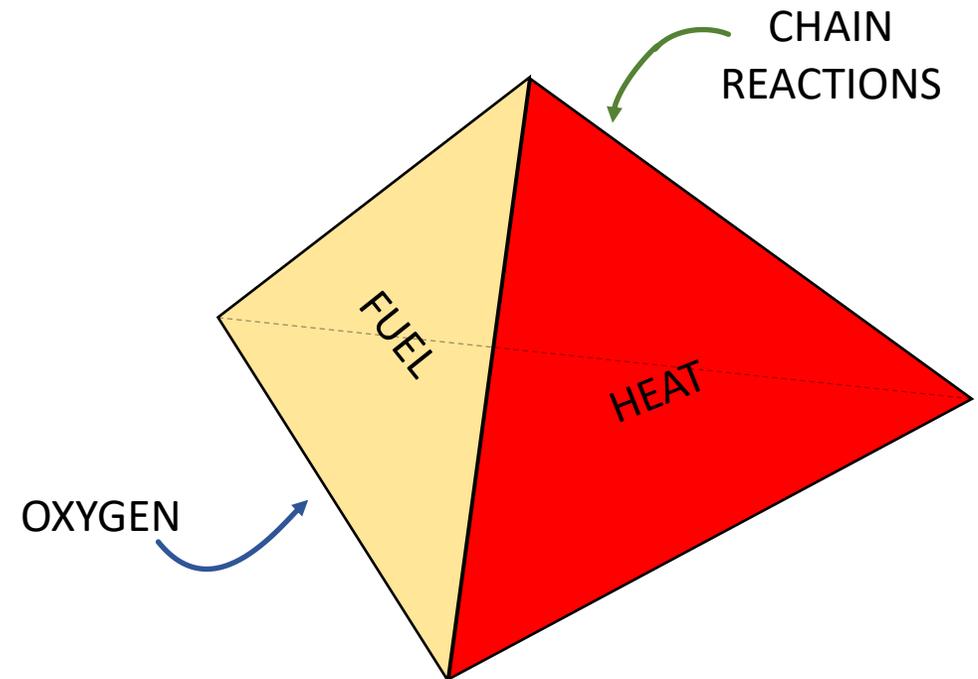
Chemistry and Physics of Fire

- As flames heat up wood
 - Wood break down (decomposes)
 - Vapors are released and ignite
 - What is left is just carbon (black charcoal)

Fire Safety

Chemistry and Physics of Fire – Fire Tetrahedron

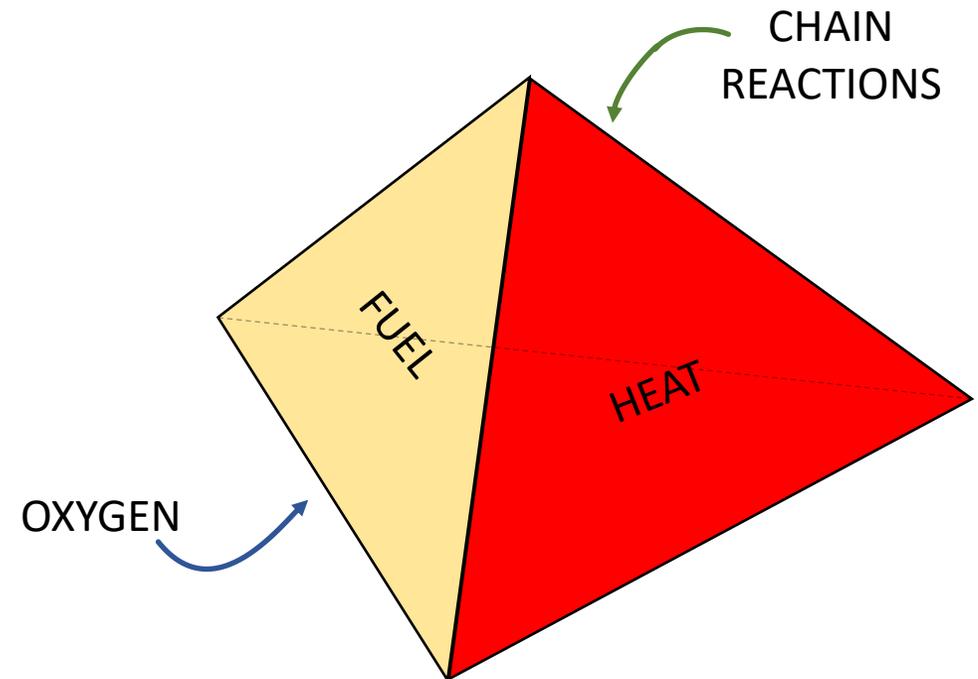
- 4 elements of **Fire Tetrahedron**
 - Fuel
 - Oxygen
 - Heat
 - Unbroken chemical chain reaction



Fire Safety

Chemistry and Physics of Fire – Fire Tetrahedron

- Fire fighting and prevention attempts to remove one or more parts:
 - Fuel – remove combustible fuel from heat source
 - Oxygen – snuff fire with lid on pan fire
 - Heat – pour water on fire
 - Unbroken chemical chain reaction



Fire Safety

Chemistry and Physics of Fire – Products of Combustion

- Products of Combustion:
 - Heat
 - Gas
 - Particles

Fire Safety

Chemistry and Physics of Fire – Products of Combustion

- Products of Combustion:
 - Heat
 - Skin burns at 115-177°
 - Inhaled heat will burn lungs
 - House fire reaches 2,000°
 - Gas
 - Particles

Fire Safety

Chemistry and Physics of Fire – Products of Combustion

- Products of Combustion:
 - Heat
 - Gas
 - Carbon monoxide –
 - Odorless, colorless and tasteless
 - Binds to red blood cells
 - You become sleepy, then unconscious and die
 - Particles

Fire Safety

Chemistry and Physics of Fire – Products of Combustion

- Products of Combustion:
 - Heat
 - Gas
 - Particles
 - Soot
 - Mostly carbon – unburnt fuel
 - Combined with gasses of fire = smoke
 - Irritate eyes, blocks vision, makes you cough

Fire Safety

Chemistry and Physics of Fire – Fire Dynamics

- Fire is started
 - Vapors combine with oxygen and ignite
 - Heat from flame heats fuel, releasing more vapors
 - Chain reaction perpetuates fire
- Heat from fire heats nearby fuels
- Ember from fire may float to nearby fuels
- Fire grows and spreads

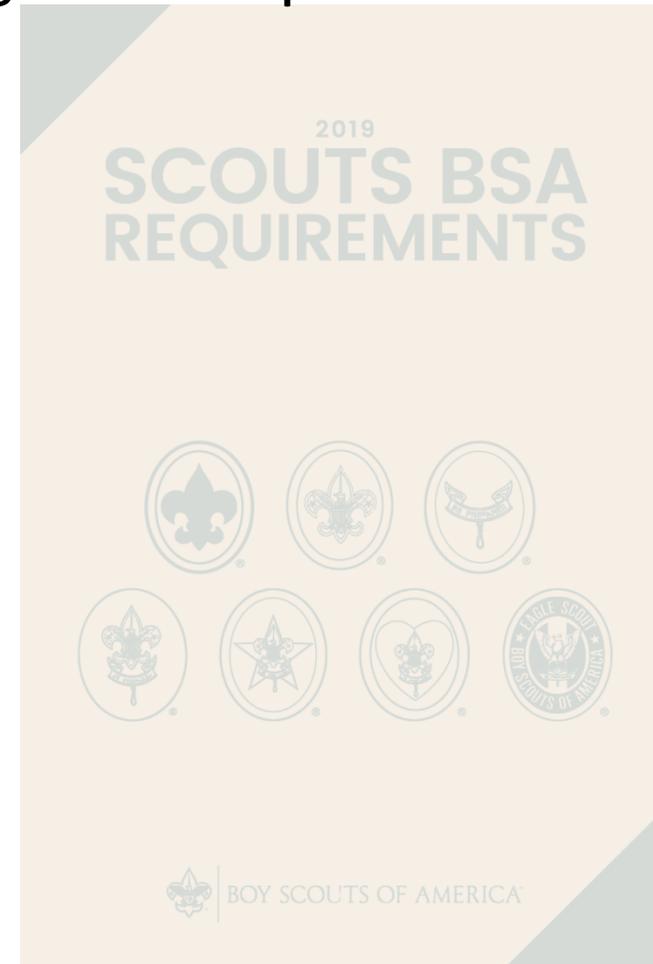
Fire Safety

Requirement 3 - Causes of Fire

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
- Electrical appliances



Fire Safety

Causes of Fire

- Smoking in the home
- Furnaces
- Space Heaters
- Fireplaces
- Cooking
- Candles
- Fireplaces
- Electrical appliances

Fire Safety

Causes of Fire – Smoking

- Cigarettes and matches can start paper or furniture on fire
- Never smoke while sleepy
 - In bed
 - While drinking alcohol
 - While on medication
- Cigarette butts should be cool before being discarded
- Ashtrays should be emptied in contained that won't catch fire

Fire Safety

Causes of Fire – Furnaces

- Keep 3-foot area around furnace clear of anything that can catch fire
- Change furnace filter regularly
- Have furnace professionally inspected as recommended or yearly

Fire Safety

Causes of Fire – Space Heaters

- Most are electric, but some burn propane or kerosene
- Keep 3-foot area around furnace clear of anything that can catch fire
- Keep children aware from space heaters
- Use space heater only as supplemental heat source
- Ensure wires are not frayed
- Wood and other solid-fuel devices should be inspected yearly
- Use correct fuel
- Fuel heater outside

Fire Safety

Causes of Fire – Fireplaces

- Always use screen in front of fireplace to keep embers from escaping
- Keep 3-foot area clear of flammable material
- Keep children away from fireplace
- Take ashes out and away from house for proper disposal
- Have fireplace and chimney professionally cleaned and inspected yearly
- DO NOT burn material that emit toxic gasses
 - Pressure treated wood
 - Shiny or metallic paper
 - Plastics
- Keep chimney clear and branches away

Fire Safety

Causes of Fire – Cooking

- Don't wear loose clothing around stove – which may catch fire
- Stay in kitchen while cooking
- Keep children away from stove
- Turn pot/pan handles towards back of stove
- Keep flammable material away from stove – pot grabbers, towels, etc.
- Wipe up grease spills immediately
- Place lid on pan fires
- If oven fire – close oven and turn off

Fire Safety

Causes of Fire – Candles

- Never use near combustible material
 - Curtains
 - Blinds
 - Carpet
 - Wood
 - Decorations
- Don't leave unattended
 - Don't go to bed with candle burning
 - Don't leave the room with candle burning
- Don't place at exits – if a fire starts there, you are trapped

Fire Safety

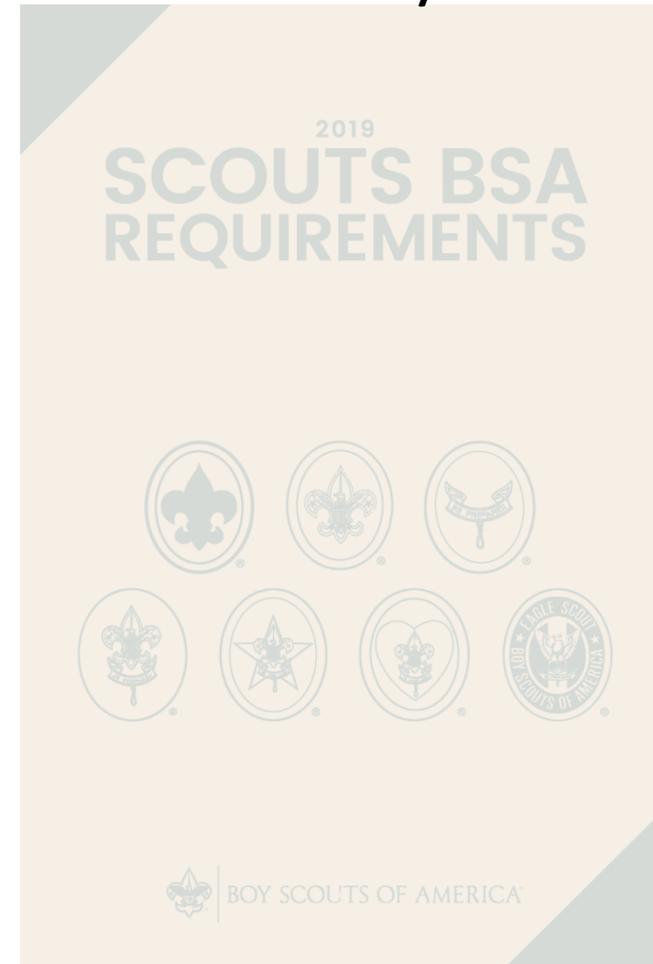
Causes of Fire – Electrical Appliances

- Unplug appliances when not in use – toasters, waffle irons, etc.
- Keep combustibles away from appliances
- Don't drape material over lamps
- Use proper sized bulbs
- Keep appliances in good repair – frayed wires are BAD
- Keep appliances away from water
 - If electrical appliance falls in water – don't reach for it

Fire Safety

Requirement 4 - Human Behavior and Arson

Explain the role of human behavior in the arson problem in this country.



Fire Safety

Human Behavior and Arson

- Arson is a crime of purposely setting a fire for wrongdoing
- 2nd leading cause of residential death by fire
- Major cause of death and damage to commercial properties
- Arson fire resulting in death is often prosecuted as murder
- Most arsonists are under 20 years old
- Reasons arsonists set fire
 - Bored
 - Curious about fire
 - Don't respect the danger of fire
 - Some are frustrated and use arson as an outlet

Fire Safety

Human Behavior and Arson - Prevention

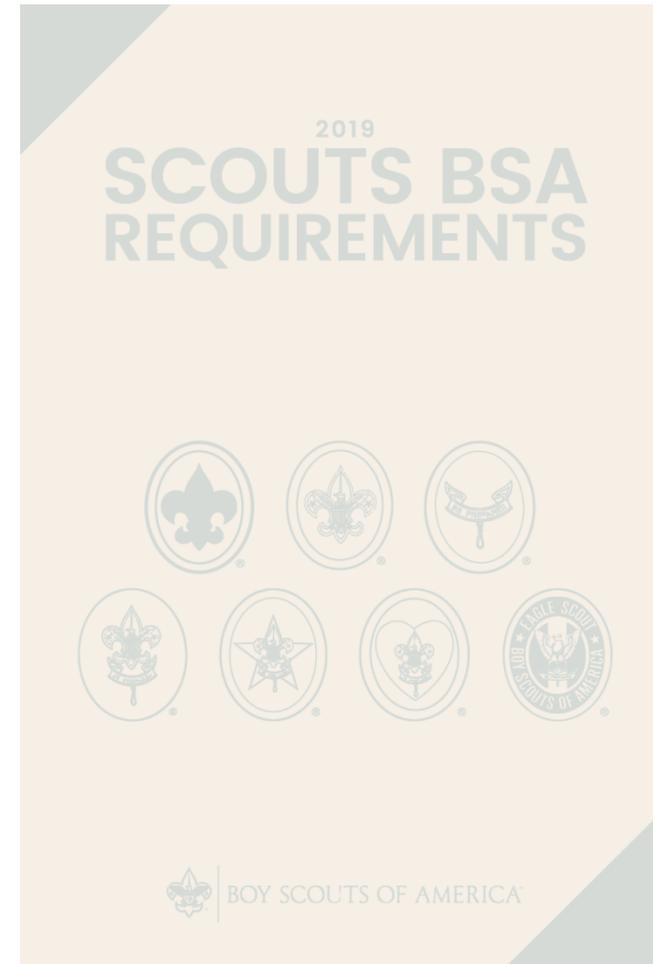
- Refuse to be a part of arson or experimenting with fire
 - Playing with fire is like playing with a gun
 - potentially lethal consequences
- Reports anyone playing with fire
- Report suspicious activity around buildings

Fire Safety

Requirement 5 – Seasonal and Holiday Fire Safety

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

Explain how these fires can be prevented.



Fire Safety

Seasonal and Holiday Fire Safety

- Most fire occur between December and February
 - Christmas
 - Hanukkah
 - New Year's Festivities
- Important cuprite:
 - Trees
 - Decorations

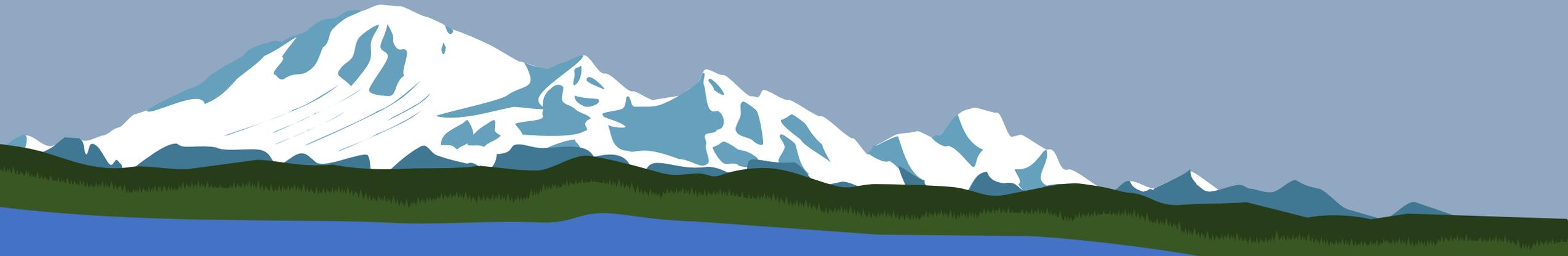
Fire Safety

Seasonal and Holiday Fire Safety

- Be cautious of trees that were cut weeks earlier
- Needles should not easily fall off when tree is shaken
- Ideally, cut a few days before Christmas to limit drying
- Distance tree from heat sources that will dry it out or it could fall on
- Cut base of tree at 45° angle and place in water
- Tree may need a gallon of water a day
- Inspect tree daily
 - Shake the tree
 - If needles readily fall off, it's dead and a fire hazard
- Only use indoor lights on your indoor tree
- Do not leave lights on unattended
- After the holiday – remove tree, boxes, wrapping paper, etc.



Home Safety Survey

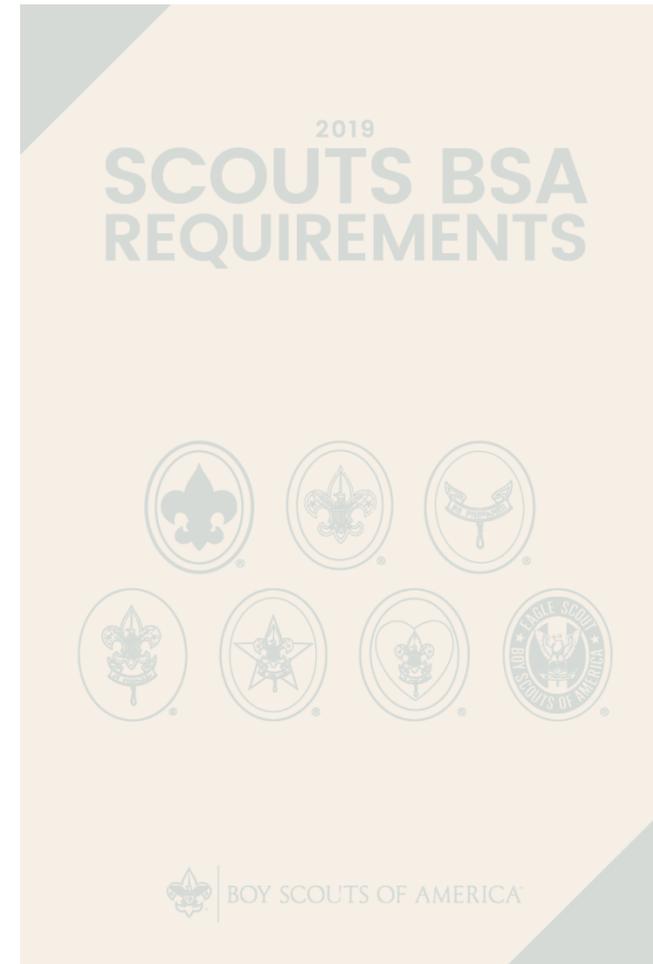


Home Safety Survey

Requirement 6 - Home Safety Survey

Conduct a home safety survey with the help of an adult.

Then do 6a-h



Home Safety Survey

Home Safety Survey

Sample Home Safety Checklist

Scout's Name: _____

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.

Sample Home Safety Checklist

Scout's Name: _____

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 walls.

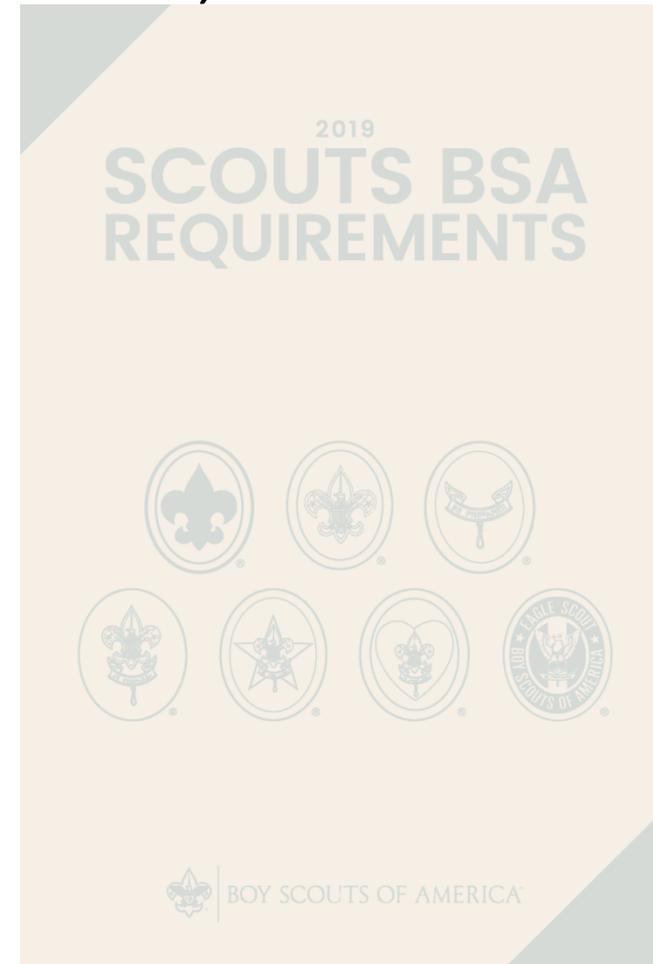
See [Workbook](#) or
Merit Badge Pamphlet

Home Safety Survey

Requirement 6a – Fire Drills

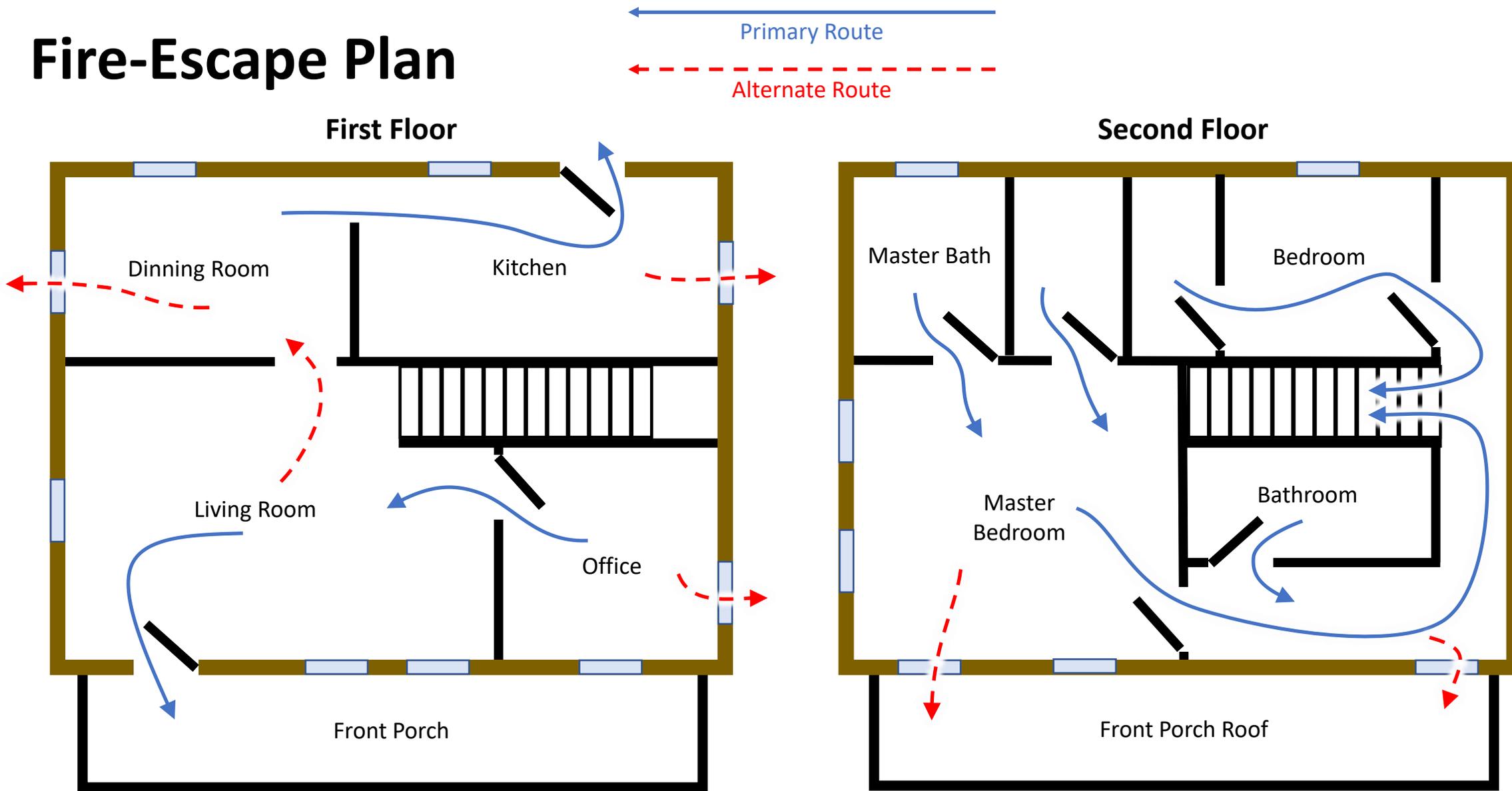
Draw a home fire-escape plan, create a home fire-drill schedule, and conduct a home fire drill.

Complete and log in Workbook



Home Safety Survey

Fire-Escape Plan



Home Safety Survey

Fire Drills

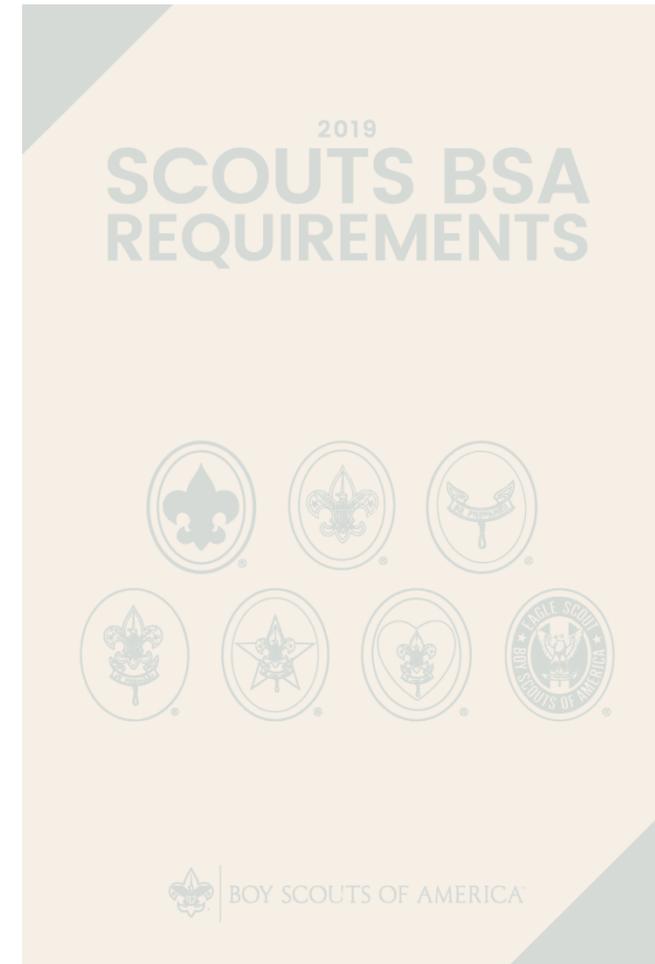
Practicing a Fire-Escape Plan does several things

- Irons out problems with plan
- Solidifies what needs to be done during emergency

Home Safety Survey

Requirement 6b – Testing Smoke Alarm

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



Home Safety Survey

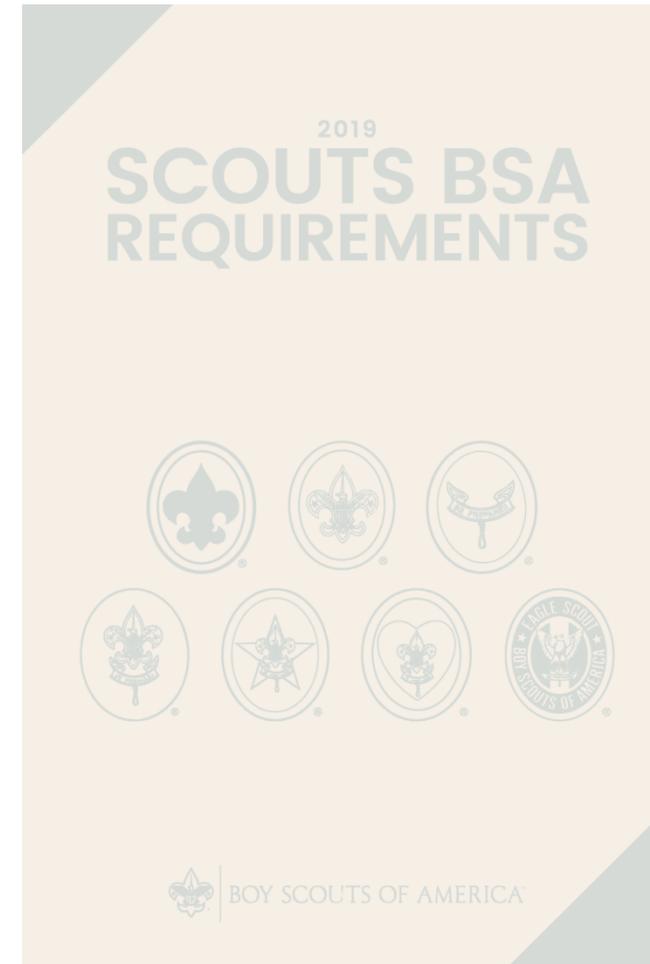
Testing Smoke Alarm

- Test Smoke alarms regularly
 - Merit Badge Pamphlet says to test once a week if battery operated
 - Others say test twice a year if connected to home power
 - Test during change in daylight savings

Home Safety Survey

Requirement 6c – Smell Gas and Smoke

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



Home Safety Survey

Smell Smoke

- Don't gather belongings
- Alert friends and family members
- Feel door with back of hand
 - If warm – don't go that way
- Stay low to ground to avoid inhaling smoke
- Meet family members at agreed meeting place
- Call 911 from a safe place

Home Safety Survey

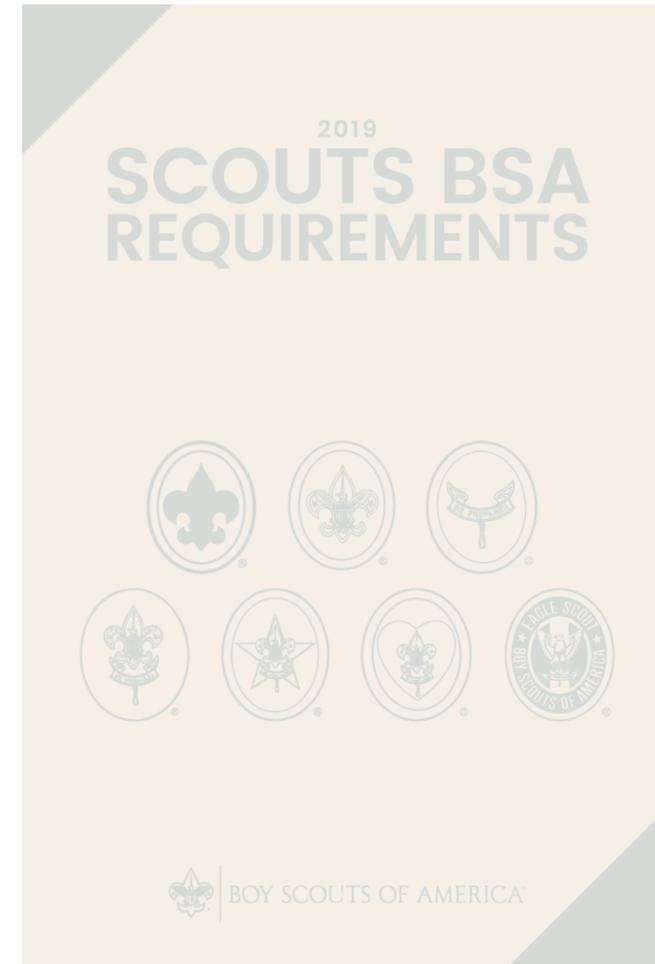
Smell Gas

- Natural gas can easily ignite and explode
- High concentrations of natural gas can cause asphyxiation
- Natural gas in a home is treated with mercaptan so you can smell it
 - Smells like rotten eggs
- If you smell gas, act quickly
 - Turn off gas stoves
 - Open doors and windows
 - Have adult check pilot lights after smell diminishes
 - If you can't find leak, call professional
- If odor is strong
 - Extinguish any fires (candles, cigarettes, stoves)
 - Evacuate and call gas company

Home Safety Survey

Requirement 6d – Report a Fire

Explain how you would report a fire alarm.



Home Safety Survey

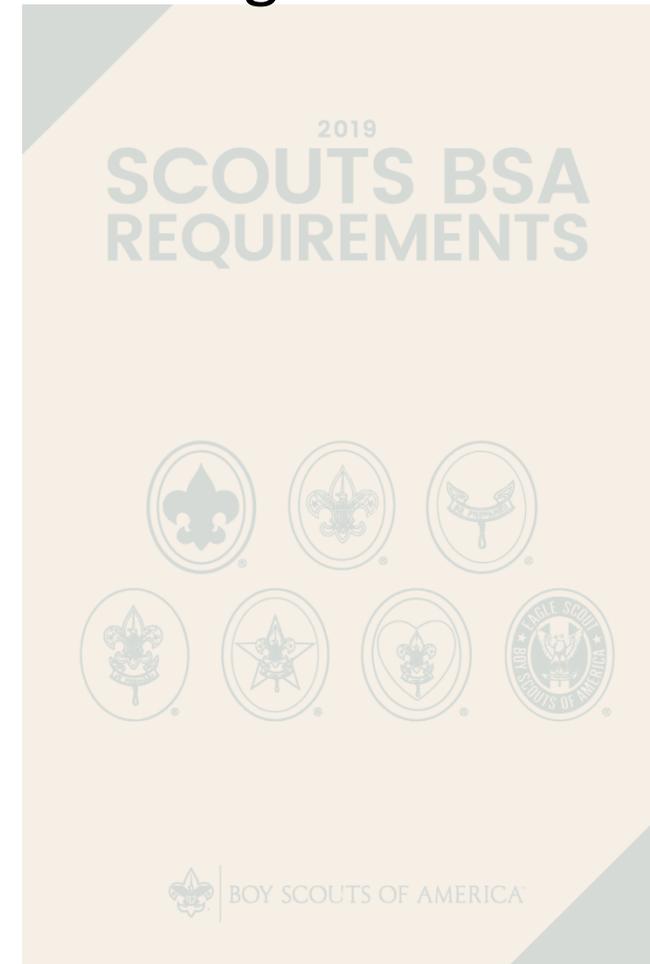
Report a Fire

- Go to neighbor's home or outside phone and call fire-department
 - Generally 911
- Be ready to provide:
 - Name
 - Address
 - Or description of location

Home Safety Survey

Requirement 6e – Fire Safety Equipment

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



Home Safety Survey

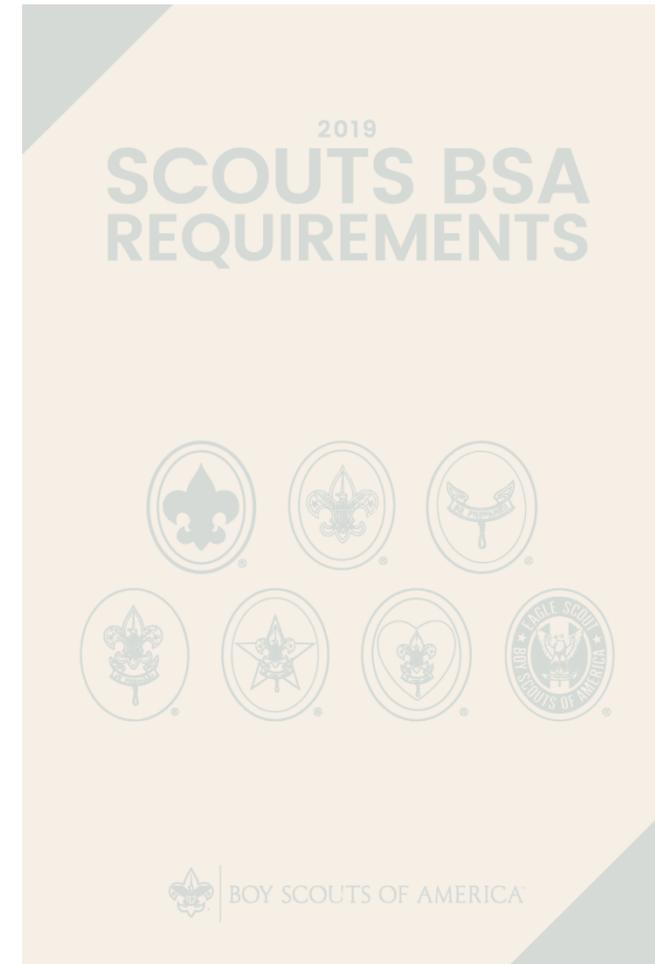
Fire Safety Equipment in Public Places

- Fire extinguishers
- Fire alarms
- Sprinkler systems
- Fire escapes
- Clearly marked exits in crowded public venues like theatres and malls

Home Safety Survey

Requirement 6f - Fire Extinguishers

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



Home Safety Survey

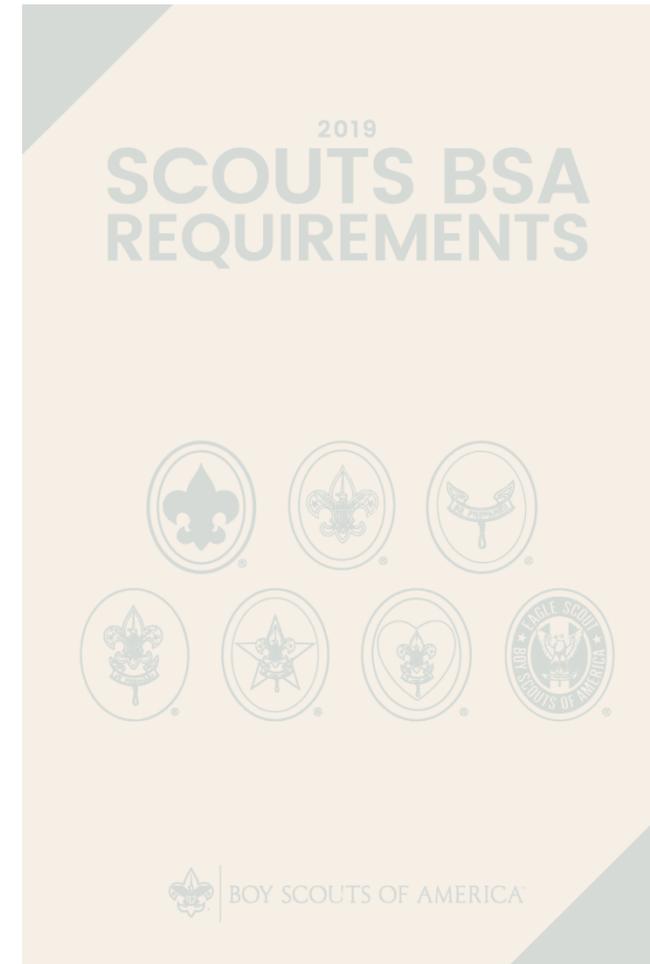
Fire Extinguishers

- Should be used by someone who know how and when to use it
- Know where they are located
- Know how to use one
- Practice using them correctly
- Don't waste time with a fire extinguisher on a fire too large to put out
 - Sound the alarm and evacuate

Home Safety Survey

Requirement 6g – Grease Pan Fire

Explain how to extinguish a grease pan fire.



Home Safety Survey

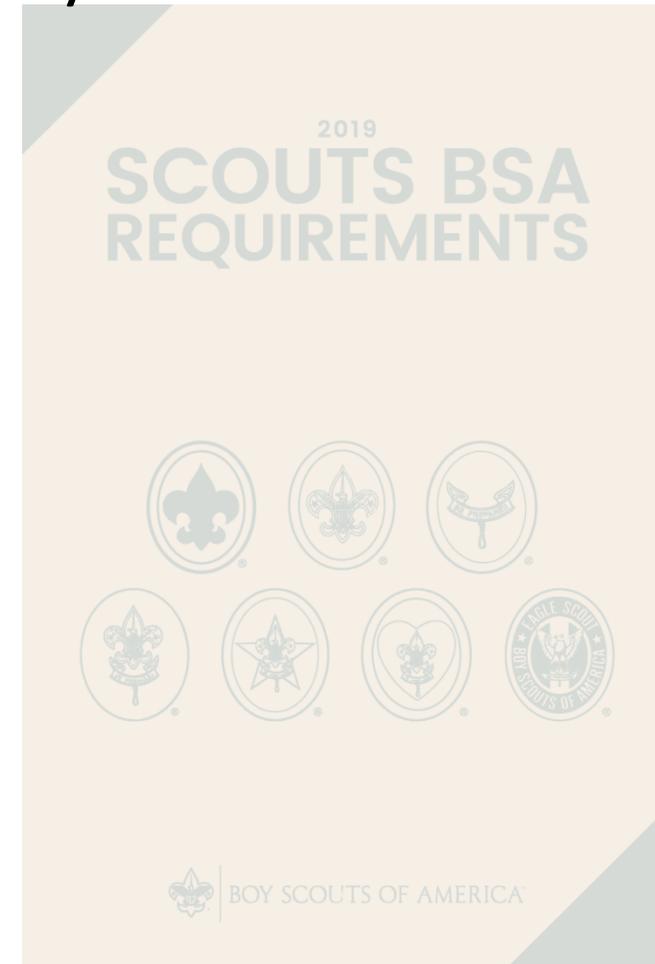
Grease Pan Fire

- Adding water to a grease fire will result in a fireball
- Use lid or larger pan to smother fire
- Wait 5 minutes before removing cover

Home Safety Survey

Requirement 6h – Fire Safety Public Building

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



Home Safety Survey

Fire Safety Public Building

- Take note of exits
- If fire starts:
 - Remain calm
 - Inform manager if possible
 - Pull fire-alarm
 - Exit immediately



Fires



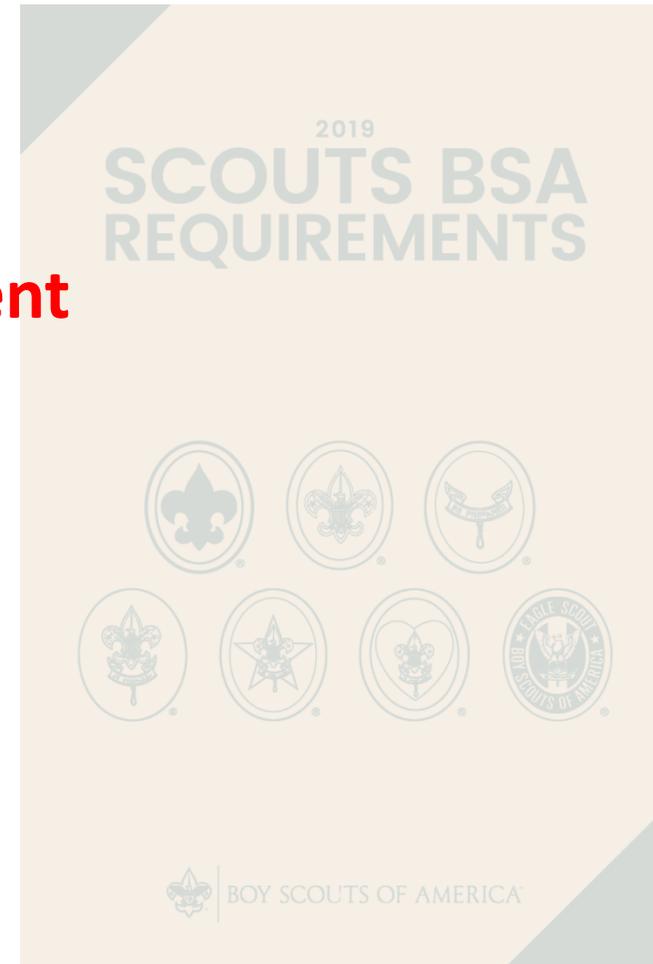
Fires

Requirement 7a – Light a Match

Demonstrate lighting a match safely.

You must “Demonstrate” this requirement

Complete and log in Workbook



Fires

Requirement 7b – Charcoal Fire

Demonstrate the safe way to start a charcoal fire.

You must “Demonstrate” this requirement

Complete and log in Workbook



Fires

Charcoal Fire

- Several ways to safely starting a charcoal fire
- Make sure you are outside in a well ventilated area
- Do NOT spray lighter fluid on hot coals

Fires

Requirement 7c – Light a Candle

Demonstrate how to safely light a candle.

Discuss with your counselor how to safely use candles.

You must “Demonstrate” this requirement

Complete and log in Workbook



Fires

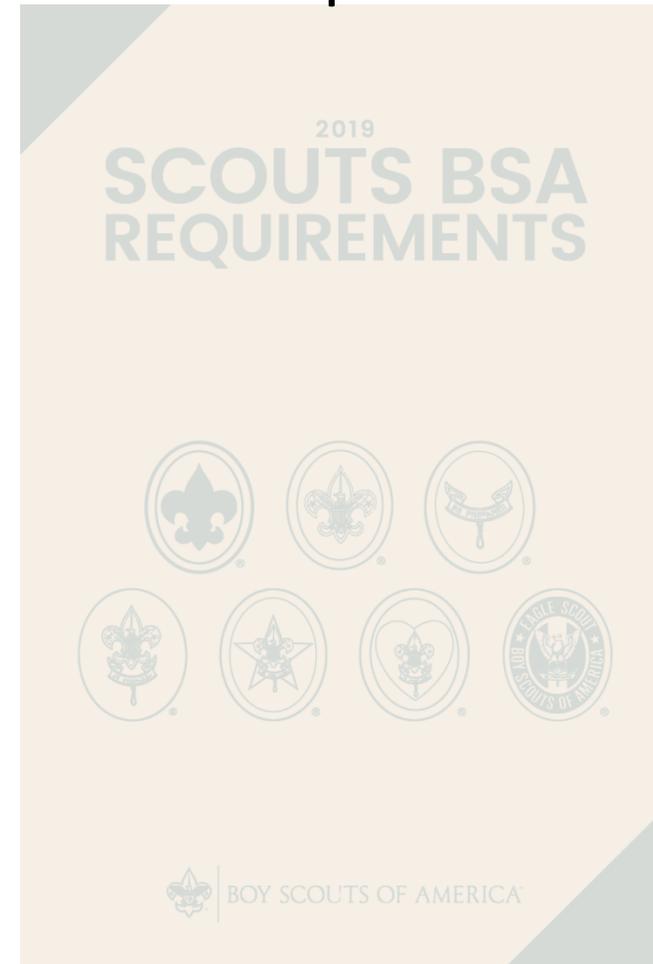
Candle Safety

- Candle have an open flame
- Do NOT place on/near
 - Tree
 - Windows
 - Curtains
 - Blinds
 - Carpet
 - Other combustibles
- Do NOT leave unattended

Fires

Requirement 8 - Combustible Liquids

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



Fires

Combustible and Noncombustible Liquids

- **Combustible Liquids**
 - Gasoline
 - Paint thinner
 - Aerosols
 - Usually have a fire warning on container
- **Noncombustible Liquids**
 - Don't easily ignite
 - Won't burn under normal circumstances

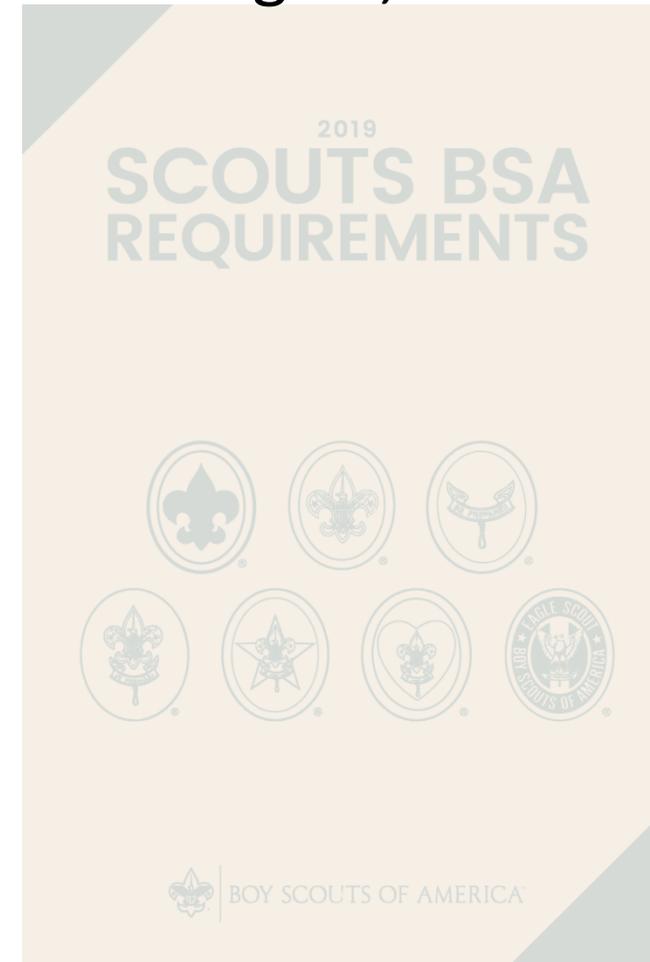
Fires

Requirement 9a – Refueling an Engine

Describe for your counselor the safe way to refuel a liquid fuel engine, such as a:

- Lawn mower
- Weed eater
- Outboard motor
- Farm machine
- Automobile

with gas from an approved gas can



Fires

Refueling an Engine

- Avoid prolonged breathing of gasoline vapors
- Use gasoline only in an open area with excellent ventilation
- Do NOT overfill tank – fuel will expand later
- Only use properly marked container – do NOT use glass containers!
- Use proper funnel or hose to prevent spills
- Ensure engine is NOT running when you refuel it
- When refueling a vehicle –
discharge static electricity prior to refueling
- Place cap on securely after done to prevent spills

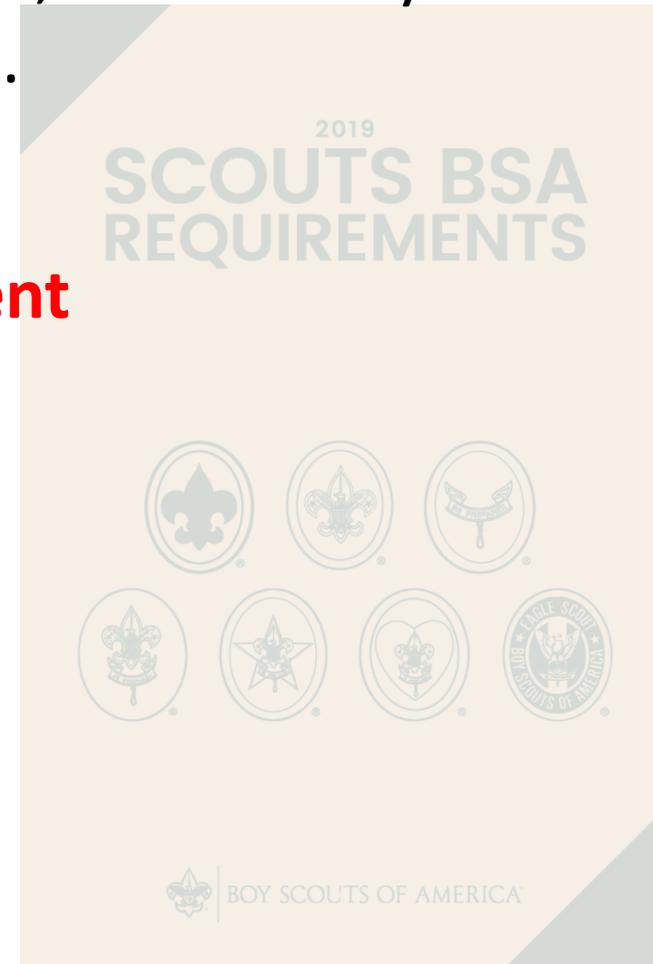
Fires

Requirement 9b – Auxiliary Heating Devices

Demonstrate the safety factors, such as proper ventilation, for auxiliary heating devices and the proper way to fuel those devices.

You must “Demonstrate” this requirement

Complete and log in Workbook



Fires

Auxiliary Heating Devices

- Only use heaters designed for indoor use
- Only use heaters with an emergency shut off
- Turn heaters off when you go to bed or leave the room.
- Do not put heaters on rugs or carpets
- Always follow the manufacturer's directions for proper use
- Only use heaters with oxygen sensors
- Keep 3-foot area around and above heater clear
- Keep children and pet away from heater when in use

Fires

Fuel-Burning Heaters

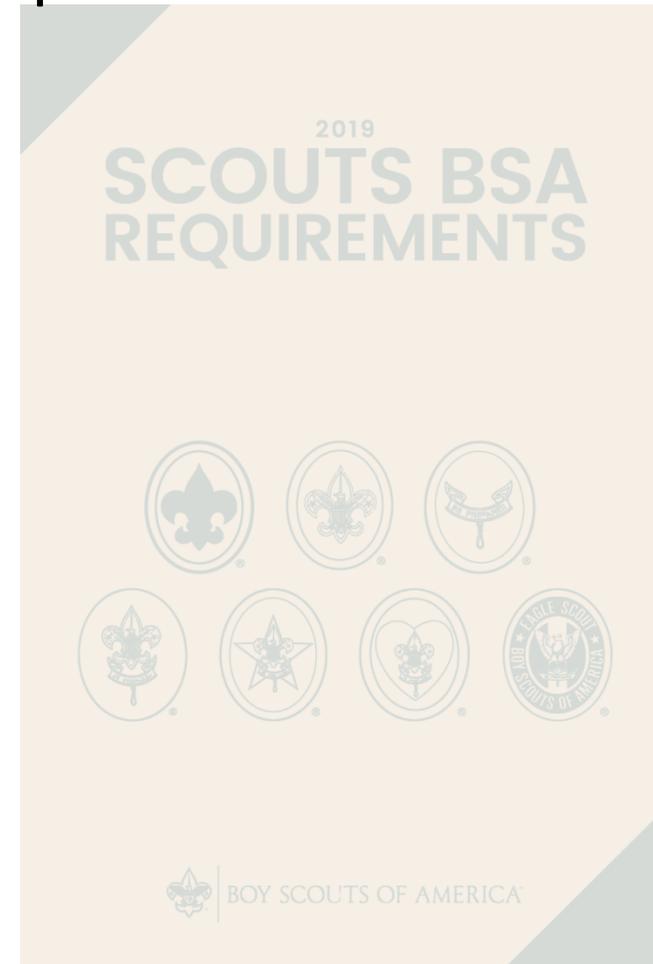
- Only use the fuel specified by the manufacturer - Never use gasoline!
- Only use approved containers clearly marked for that particular fuel
- Store fuel outdoors
- Do not put heaters on rugs or carpets
- Always follow the manufacturer's directions for proper use
- Never fill a heater that is still hot
- Do not overfill the heater – fuel will expand when heated
- Only use heaters with oxygen sensors

Fires

Requirement 10a – Wildland Fires

Explain the cost of outdoor and wildland fires and how to prevent them.

Complete and log in Workbook



Fires

The Cost of Wildland Fires

- Death
- Personal Injury
- Damage to buildings
- Damage to timber crops
- Destruction of habitat and soil
- Cost to put out fire
 - Cost of equipment
 - Cost of staff or volunteer time
- Cost to rebuild
 - Lost revenue as businesses rebuild
 - Lost business to community

Fires

The Cost of Wildland Fires

U.S., Utah Want Boy Scouts to Pay \$14 Million for Wildfire

By SCOTT GOLD

JULY 1, 2004 12 AM PT



TIMES STAFF WRITER

SALT LAKE CITY — For two years, Utah residents have wondered who started a wildfire that destroyed 14,208 acres of alpine forest and pristine meadows in the Uinta Mountains near the border with Wyoming. The government's answer came this week, and no one wanted to hear it.

Federal and state officials Monday slapped the Boy Scouts of America with two lawsuits demanding that the venerable organization cover the nearly \$14 million it cost to fight the June 2002 blaze.

Fires

Requirement 10b – Cooking Fire

Demonstrate setting up and putting out a cooking fire.

You must “Demonstrate” this requirement

**It is acceptable to use a pan filled with cold water
to simulate an oil fire**

Use pot lid or cookie sheet to simulate extinguishing fire

Do NOT start a real fire for this demonstration



Fires

Cooking Fire (aka pan fire)

- An oil fire burns hot and is very dangerous
- Throwing water on burning oil can cause a fireball of flames
- To put out an oil fire, snuff it with:
 - Lid
 - Cookie sheet
 - Larger pan

Fires

Requirement 10c – Camp Stove and Lantern

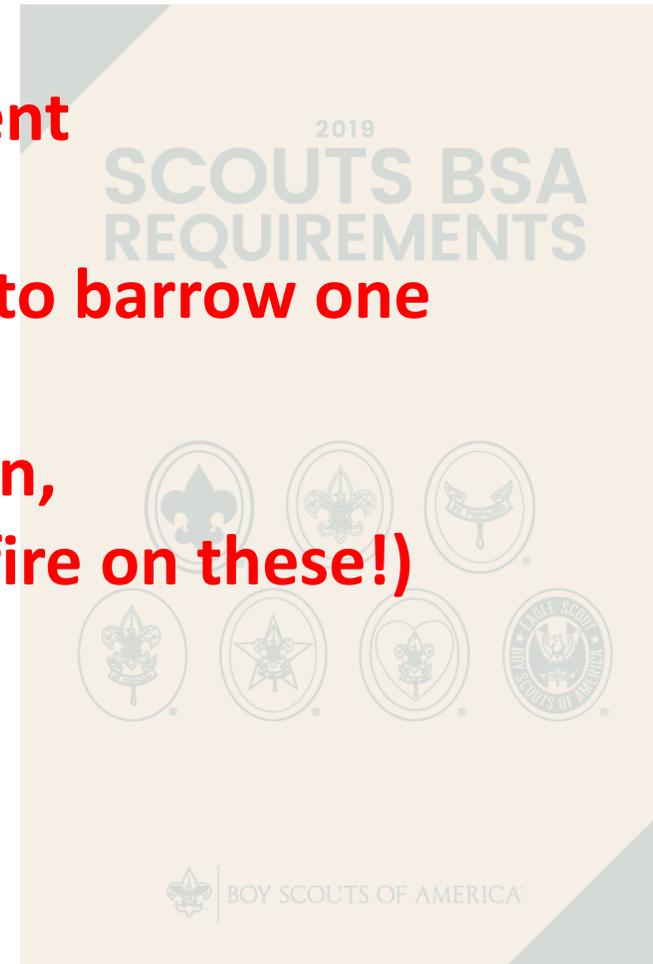
Demonstrate using a camp stove and lantern.

You must “Demonstrate” this requirement

If you do not have a stove or lantern, you will need to barrow one

**If you just don’t have access to a lantern,
you can make a cardboard mockup (don’t use real fire on these!)**

Complete and log in Workbook

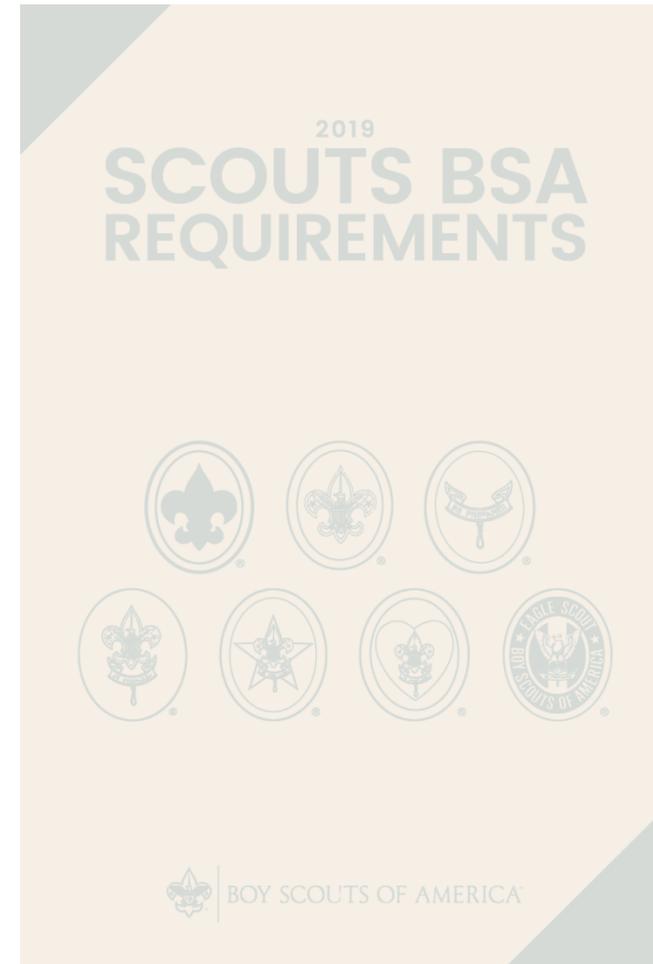


Fires

Requirement 10d – Campsite Safety

Explain how to set up a campsite safe from fire.

Complete and log in Workbook



Fires

Campsite Safety

- Set up an alarm that can be heard through camp
- If organized fire protection is nearby, ensure every knows about it
- Remove all flammable rubbish and leaves from around tents
- Hand towels to dry away from stoves, heaters and campfires
- Collect fireplace and stove ashes in covered metal container to cool
- Perform evening check of camp before going to bed
 - Ensure all fires are out
 - Ensure all lights are out or protected

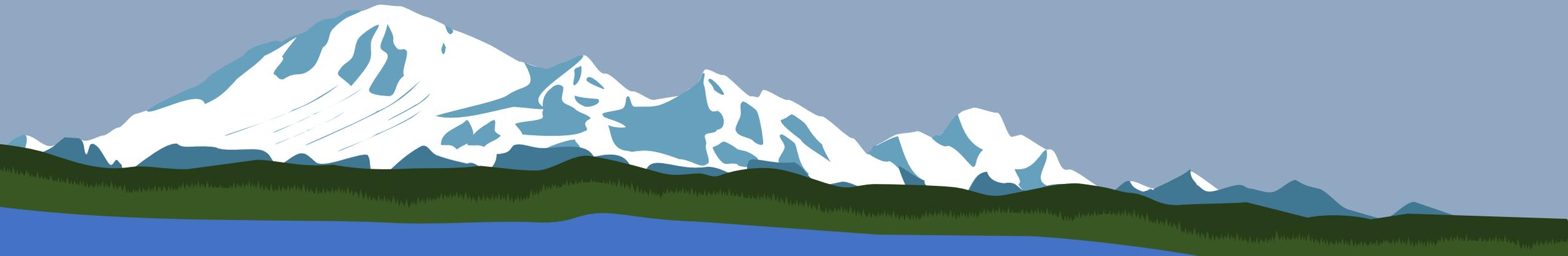
Fires

Campfire Safety

- Campfires may need a permit or may be banned – check first
- Build on sand, mineral soil or rocks
 - Avoid spongy , porous or peaty soil – these can ignite underground
- Do NOT build fire next to trees
- Clear all flammable material 10 feet around outdoor fire
- Do NOT leave fire unattended
- When putting out,
stay with fire until it is cool enough to place hand on ashes
- Be cognizant that embers will float and travel
- An older member of group should be appointed as fire warden
- Have 2-3 pails of water by fire



Community Fire Safety



Community Fire Safety

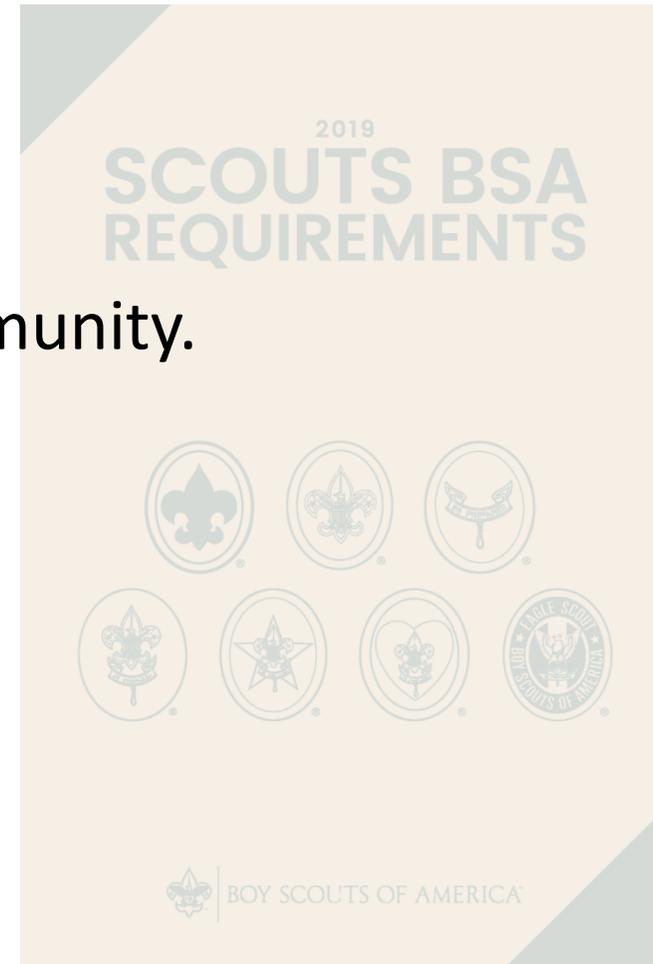
Requirement 11 – Fire Station and Community

Visit a fire station.

Identify the types of fire trucks.

Find out about the fire prevention activities in your community.

Complete and log in Workbook



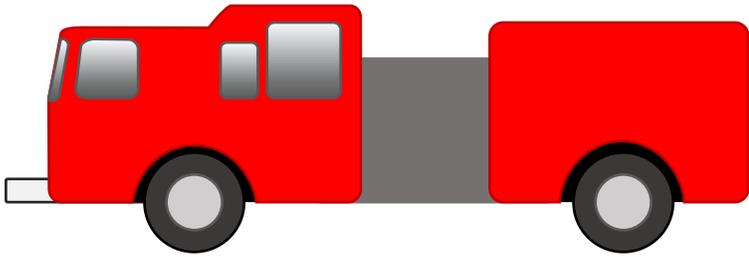
Community Fire Safety

Types of Fire Truck

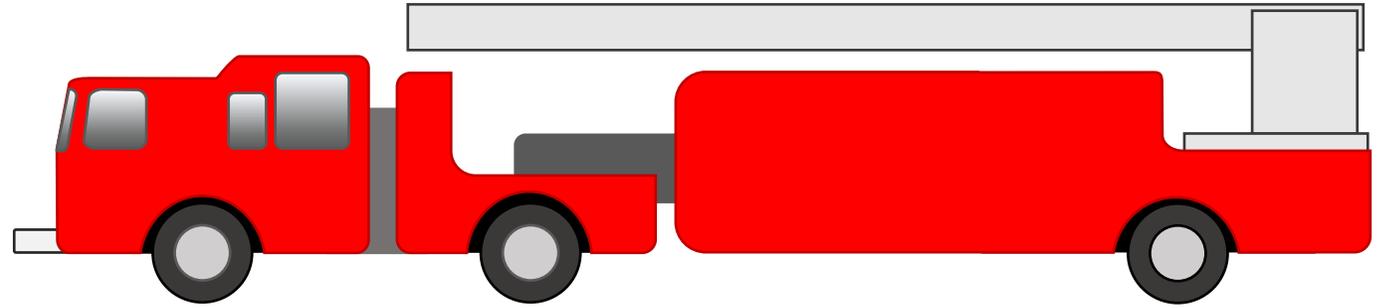
- There are several basic types of Fire Trucks
 - Conventional Fire Truck (Pumper Truck)
 - Turntable Ladder Truck
 - Tiller Truck
 - Platform Truck
 - Quint
 - Heavy Rescue Vehicle
 - Wildland Fire Engine
 - Water Tender

Community Fire Safety

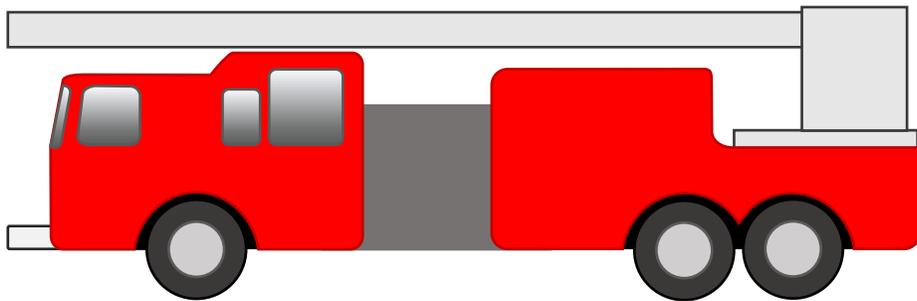
Types of Fire Truck



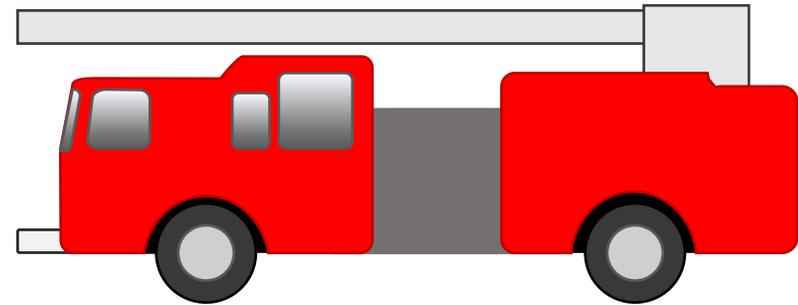
Conventional Fire Truck



Tiller Truck



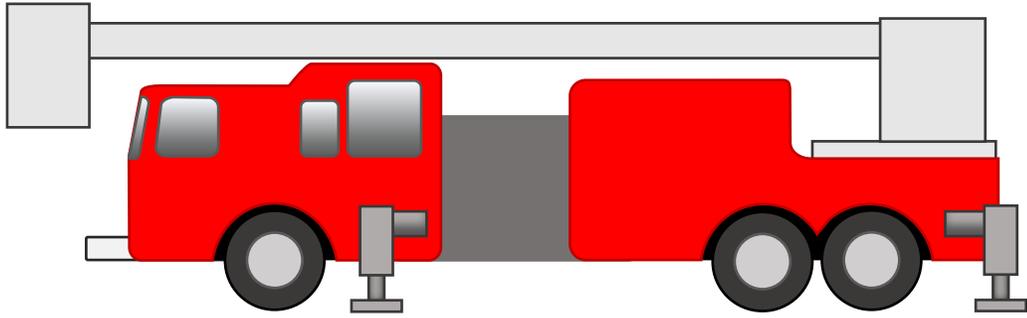
Turntable Ladder Truck



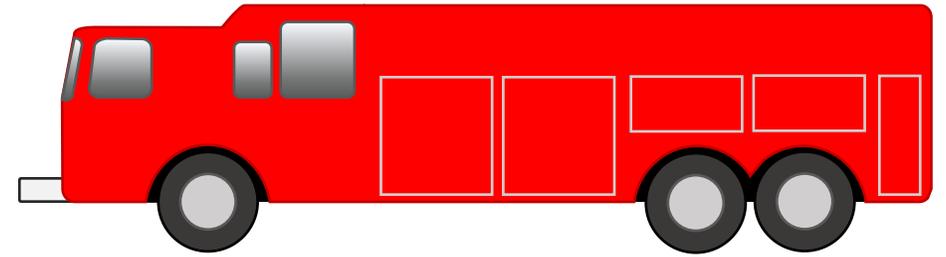
Quint

Community Fire Safety

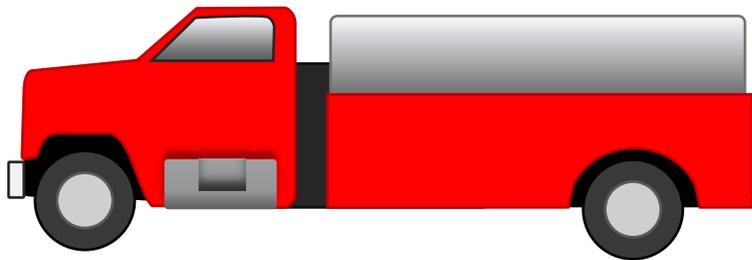
Types of Fire Truck



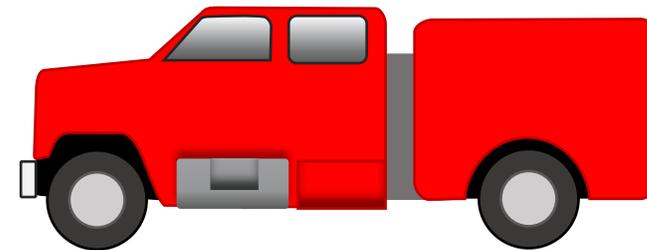
Platform Truck



Heavy Rescue Vehicle



Water Tender



Wildland Fire Engine

Community Fire Safety

Fire Station and Community – Seattle

- seattle.gov/fire/safety-and-community

Community Fire Safety

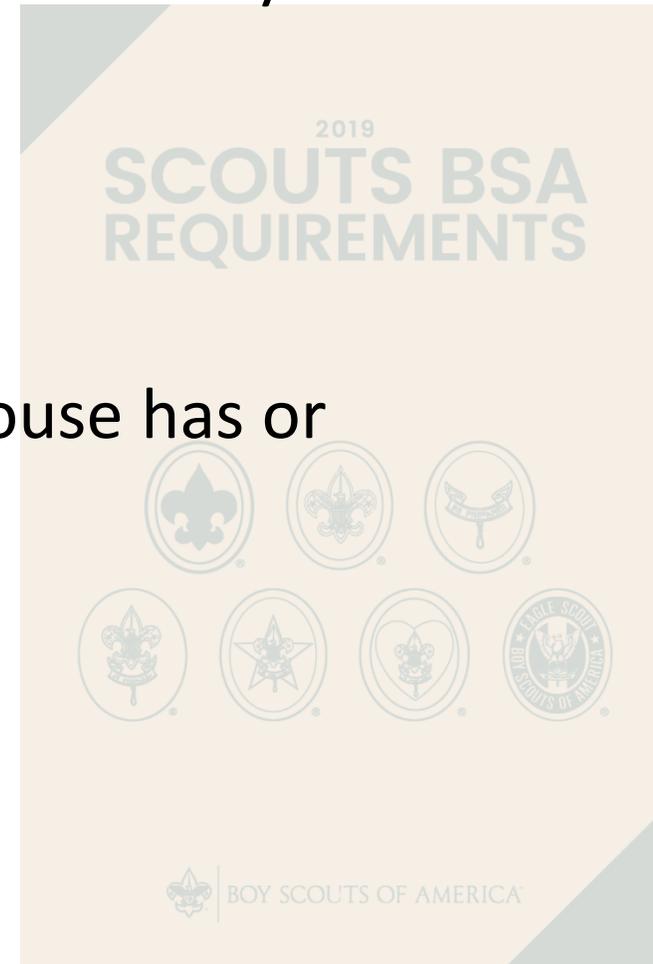
Requirement 12 – Smoke Detectors

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.

Complete and log in Workbook



Community Fire Safety

Smoke Detectors – Washington State

- RCW [43.44.110](#)

Community Fire Safety

Smoke Detectors – Seattle

- Seattle Residential Code
- Seattle Building Code
- Seattle Fire Code
- Revised Code of Washington

Community Fire Safety

Smoke Detectors – Seattle

- Seattle Residential Code (SRC) Section [R314](#) requires smoke alarms
 - New construction of single- and multi- family residences
 - Existing rental units
 - Home when sold
 - Throughout home when bedroom is added
 - Throughout home when interior work requiring permit occurs
- Powered by the home's electrical system with a battery backup
 - All new homes

Community Fire Safety

Smoke Detectors – Seattle - Interconnected

- All smoke alarms in the home must be interconnected
 - They all will sound if one of them detects smoke
- Exception – remodeling without
 - Removal of interior finishes AND
 - No available attic or basement access
 - Then alarms may then be battery operated and function separately

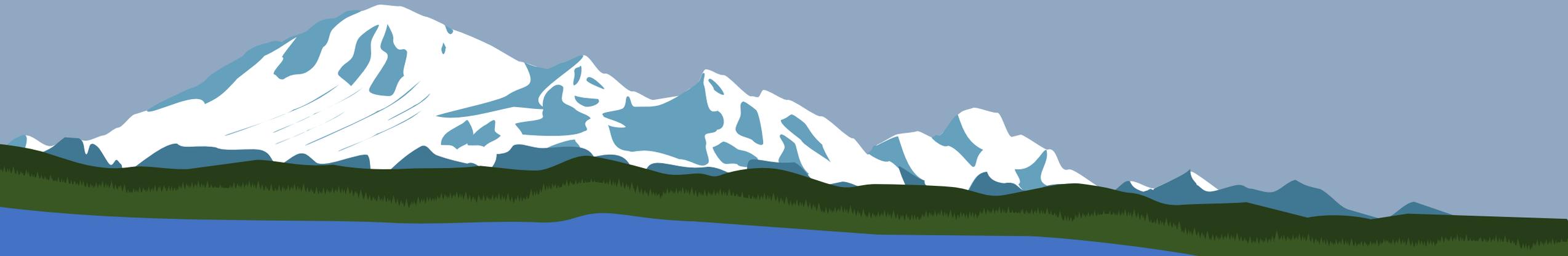
Community Fire Safety

Smoke Detectors – Seattle – Where

- Every bedroom
- Outside every bedroom
- On every level of residence
- Each story of residence – including basement
 - If story is splits into different levels – additional alarm must be added to upper level



Careers



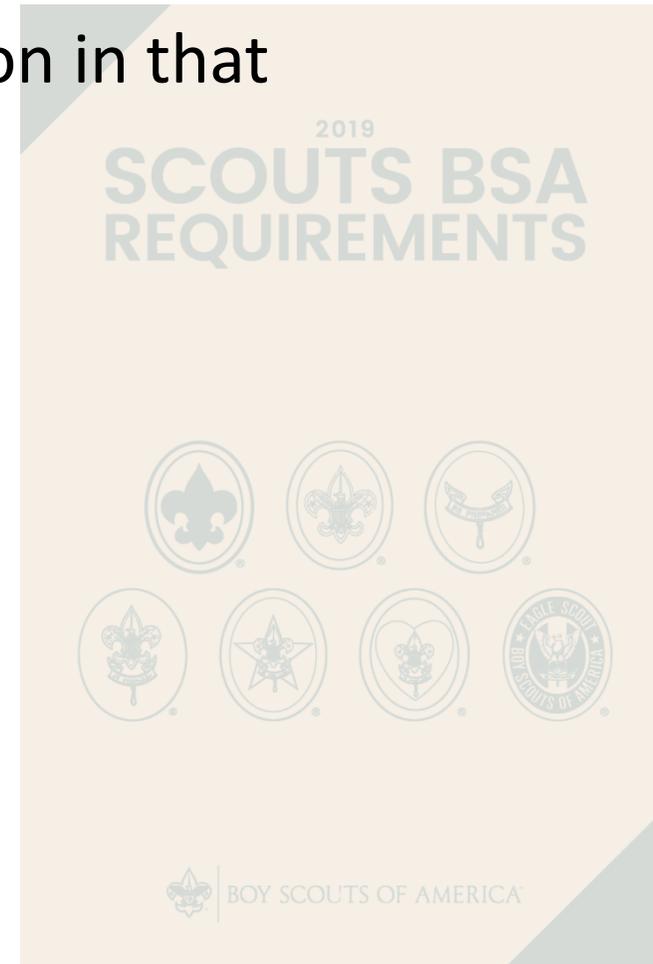
Careers

Requirement 13 - Fire Safety-Related Career

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

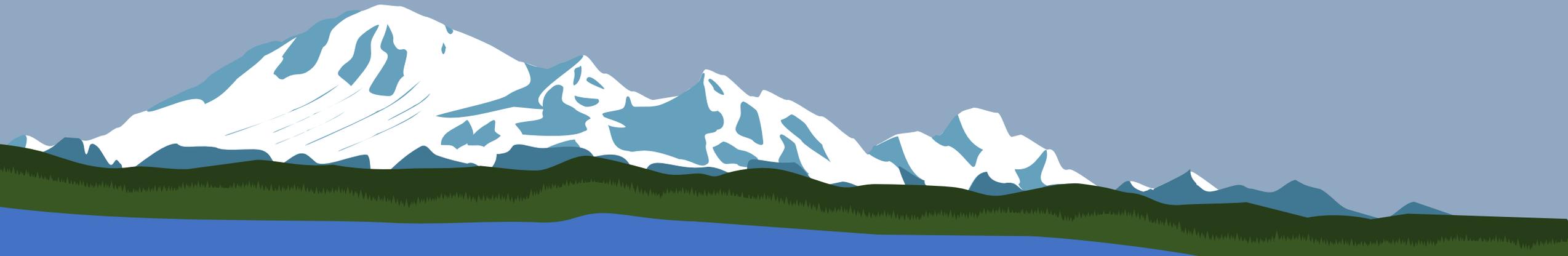
Tell why this position interests you.

Complete and log in Workbook





Final Thoughts



Final Thoughts

Merit Badge Requirement Checklist

- Show completion of work
Ideally - **Turn in complete [Workbook](#)**
- There are obviously requirements that must be done outdoors
Complete these can send confirmation of completion



If you are unable to fill out a [Workbook](#)
Please contact your councilor

Final Thoughts

Final Thoughts

- Fires are incredibly dangerous and unforgiving
- Understand how fire works
- Respect the dangers of fire and take precautions

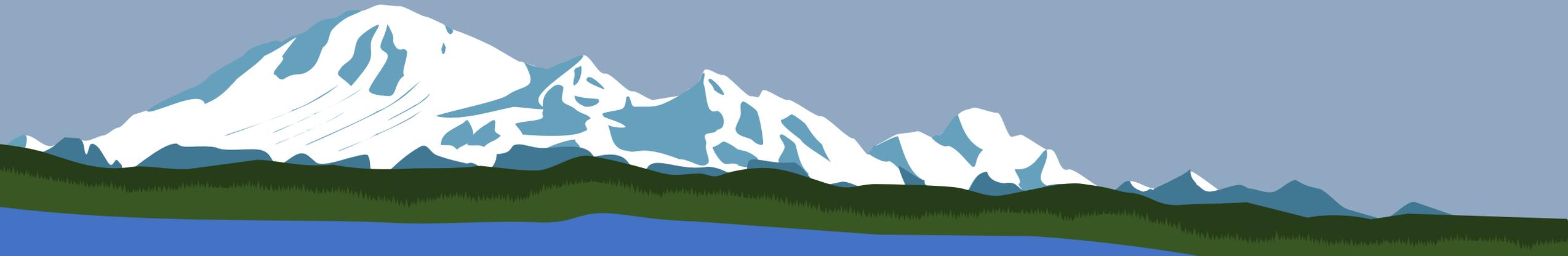
Final Thoughts

Looking for More?

- Merit Badge Pamphlet is a great resource
- [Red Cross](#)
- [National Safety Council](#)
- [Seattle - Fire Safety](#)
- Contact your local Fire Department for a tour or talk



Resources



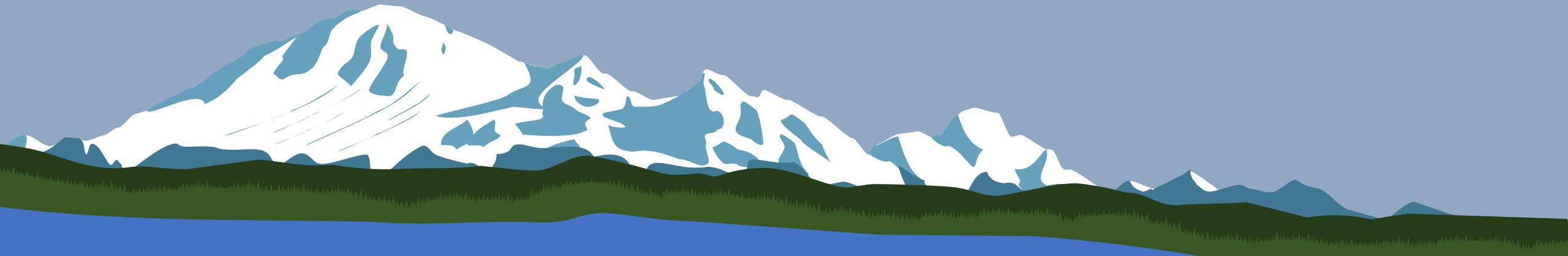
Resources

Resources

- Merit Badge Pamphlet



Instructor's Corner



Instructor's Corner

Instructor's Corner

- Thank you for teaching our scouts the Fire Safety Merit Badge.