



Government of
Northwest Territories

Northwest Territories Defensive Firefighter Training

SESSION 9

FIRE SAFETY OUTREACH

Government of the Northwest Territories
Municipal and Community Affairs

First Edition (2025)



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SESSION 9 – FIRE SAFETY OUTREACH



INTRODUCTION

NWT Defensive Fire Training (NWT-DFT) is a competency-based learning curriculum for community fire departments. This workbook provides volunteer firefighters with the knowledge required to achieve 34 skills. When successfully assessed, students and volunteer NWT firefighters will have met the basic requirements to respond to exterior fire scenes. Skills in the NWT-DFT program are to be assessed at National Fire Protection Association (NFPA) standards.

Fire prevention and public education are essential for defensive fire departments to minimize the risk of fires in their community. These efforts not only help prevent fires but also reduce their impact when they do occur. By understanding and applying the adopted codes and standards, departments can ensure that buildings are as safe as possible for both the public and responding firefighters. Defensive firefighters should actively support and promote fire and life safety through various public education initiatives.



LEARNING OUTCOMES

1. Explain why public outreach is part of a firefighter's role
2. Describe how codes and standards relate to training and life safety programs
3. Describe six areas of fire prevention and life safety programming
4. Explain the TELL-SHOW-DO method of teaching
5. Skill Drill 9-1: Deliver training on Exit Drills In The Home (EDITH)
6. Skill Drill 9-2: Deliver a smoke alarm presentation
7. Skill Drill 9-3: Conduct a home safety survey in a residence



Digital versions of all books in the NWT Defensive Firefighter Training program are available for download and/or printing here:

<https://communitylearning.learnworlds.com/defensive-fire>



PUBLIC OUTREACH OVERVIEW

Defensive firefighters in the NWT do more than fight fires. They also help stop fires before they start. They teach people how to stay safe and protect their homes. Fire prevention is very important in the NWT. With many homes being older or using alternative heat like wood stoves, fire safety is a must. Fire prevention and life safety education is critical when most of our communities have few resources, and assistance may be far away or unavailable. Here are some common programs firefighters teach to the public as part of your fire department's service to the community.

Smoke Alarm Checks & Installs	Firefighters go to homes to check smoke alarms. They help people put in new ones if needed. Smoke alarms warn people early so they can escape a fire.
Fire Safety at Schools	Firefighters teach children how to stay safe. They talk about what to do if there is a fire. Kids can also share what they learn with their families.
Community Fire Drills	Firefighters help plan and lead practice drills. These drills help people know where to go and what to do in a fire. This is very important in small communities with few roads.
Home Safety Visits	Firefighters visit homes to look for fire dangers. They check things like heaters, wood stoves, and exits. They give tips to make homes safer.
Public Safety Messages	Firefighters share fire safety tips on the radio, posters, and at meetings. They remind people to be safe in winter and in wildfire season.
Fire Extinguisher Training	Firefighters teach adults how to use fire extinguishers. They can also teach how to find and fix fire risks at home or at work.





CODES AND STANDARDS

When teaching fire prevention and life safety, it's important to use the right codes and standards. These are the rules that guide how we do things safely. If we don't use the correct information, we might teach something that's not safe or correct. This can confuse people or lead to mistakes in an emergency. Using the proper codes and standards helps defensive firefighters share clear, correct, and up-to-date safety steps. It also makes sure everyone in the community gets the same message, no matter who is teaching. Programs used to teach the public about fire prevention must reflect these codes and standards.

National Building Code of Canada (NBC)	Federal sets safety rules for new buildings and major repairs. It makes sure safe materials are used, alarms and sprinklers are installed properly, and buildings are properly designed. It also ensures fire can't spread easily and that people can exit safely in an emergency.
National Fire Code of Canada (NFC)	The National Fire Code (NFC) works with the National Building Code (NBC) to keep people safe after a building is built. The federal NFC makes sure buildings are maintained safely by setting rules for fire exits, alarms, sprinklers, and storing fuel or chemicals. It also includes rules for fire drills and safety plans. In the NWT, both the Building Code and Fire Code are required by the Fire Prevention Act and Regulations, meaning all buildings must follow these safety rules.
NWT Fire Prevention Act and Regulations	The NWT Fire Prevention Act and Regulations ensures building and fire safety is maintained throughout the NWT. The Office of the Fire Marshal (OFM), part of the Government of the Northwest Territories (GNWT), ensures the rules are followed. The OFM is responsible for enforcing fire safety rules, inspecting buildings for hazards, and investigating fires to find their causes. These rules help keep people, homes, and communities safe.
Local Bylaws	Communities in the NWT can create their own fire protection bylaws, but these must follow territorial laws. Local fire bylaws can add extra fire prevention rules, set safety inspection guidelines, and help plan responses to fires and emergencies. These bylaws help each community stay safe based on their specific needs.
Safety Act (NWT)/Firefighter Code of Practice	Employers must follow safety rules to keep workers safe and healthy, including volunteer firefighters. These territorial rules ensure there are clear steps to prevent injuries, use safety equipment correctly, and follow safe work practices. Everyone, both employers and workers, plays a role in workplace safety.

**When in conflict, the legislation of the higher level of government is followed (NWT legislation would be followed if in conflict with a local bylaw, for example).*



TEACHING RESOURCES

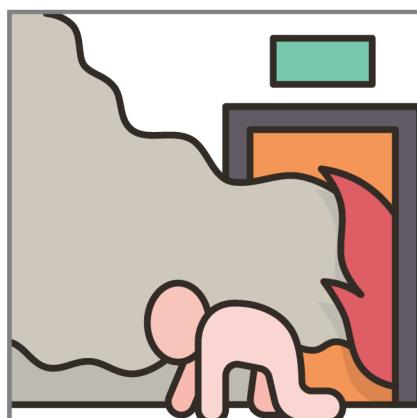
There are several fire prevention and life safety educational programs available across Canada that are already built using correct codes and standards (like NFPA and provincial/territorial fire codes). These programs are designed to be adapted for communities across the country, including remote communities in the NWT. Here are some reliable sources:

NFPA Public Education Programs (Canada-compatible)	<p>Programs well-tested and used across North America. They follow proper codes and have been adapted for Canadian use.</p> <ul style="list-style-type: none">• Learn Not to Burn (for children)• Remembering When (for older adults)• Fire Prevention Week toolkits	 NFPA Public Education
FireSmart Canada and FireSmart NWT	<p>FireSmart is supported by all provinces and territories, including the NWT. It follows national wildfire protection standards.</p> <ul style="list-style-type: none">• FireSmart 101• Neighbourhood Recognition Program• Home Ignition Zone training	 FireSmart Canada
Partners in Protection (for Indigenous communities)	<p>FireSmart for Indigenous Communities: Offers culturally adapted, standards-based wildfire education and home safety programming.</p>	 FireSmart Indigenous
Canadian Fire Safety Association (CFSA)	<p>The CFSA promotes fire prevention based on building codes, fire codes, and national standards.</p> <ul style="list-style-type: none">• Training modules and presentations for the public and firefighters• Community safety education materials	 CFSA
NWT Office of the Fire Marshal (OFM)	<p>Each province or territory has an Office of the Fire Marshal (or similar authority) that offers fire prevention material.</p>	 NWT OFM



EDUCATIONAL PROGRAMS

Good fire prevention and life safety trainers take time to learn each step of the program they're using to teach it properly. Firefighters teach both how to stop fires from starting, and what to do if one happens. It's also important to adjust how you teach depending on your audience—kids, adults, or Elders—so everyone can learn in a way that makes sense to them. These are common programs to teach in your community.



Exit Drills In The Home (EDITH)

Exit Drills in the Home (EDITH) help everyone in the house learn how to escape safely in a fire or emergency. By practicing, it helps people stay calm, make good decisions and remember the best way out.

- Sleep with doors closed to keep out smoke and fire longer.
- Plan two ways out of each room in case one is blocked.
- Roll out of bed and crawl low. Smoke rises, so air is safer near the floor.
- Check doors for heat. If a door is warm, don't open it—fire may be behind the door.



Installing/maintaining smoke alarms

Learning about installing and maintaining smoke alarms is important because these alarms alert people to smoke or fire early on. This gives them more time to escape safely if there's a fire. Fire prevention programs also help create a culture of safety, encouraging regular maintenance and inspections of smoke alarms. Regular testing (twice per year minimum) and replacing the batteries ensures the alarms work properly and can help save lives.

REQUIREMENTS

In Canada, new homes must have interconnected, hard-wired smoke alarms with battery backup. These alarms should be in every bedroom, outside each sleeping area, and on every floor. It is also highly recommended to install CO alarms outside mechanical or furnace rooms, or spaces with fuel-burning appliances.

Homes are not required to have residential sprinkler systems, but adding them where possible is strongly recommended. Testing and maintaining these systems regularly is key to keeping them working well and protecting lives and property



EDUCATIONAL PROGRAMS

Home safety surveys

Firefighters should know how to do home fire safety checks. This means being ready, knowing what to look for, and talking clearly with the people who live there. These checks help spot fire risks and teach safety tips.

- Make sure the house number is easy to see so responders can find the home fast.
- Clear away trash, big bushes, and anything blocking doors or paths.
- Check that smoke alarms and fire equipment are working properly.
- Talk about safe cooking to prevent kitchen fires.
- Look at heaters and fireplaces—they are a fire risk if not properly maintained and used right.
- Watch for things like bad wiring, lit candles, or signs of smoking.
- Ensure safe and proper storage of any flammables (gasoline, propane, etc).

Portable fire extinguishers

Fire extinguisher training teaches people how to pick the right extinguisher for their needs, where it should be located, and how to use it properly and safely. This can help stop small fires from spreading.

- Different fires need different types of extinguishers.
- Adults can use extinguishers only if the fire is small and it's safe to do so.
- Children should not use extinguishers. They should focus on getting out safely and quickly.
- Fire extinguishers must be checked monthly, tested once a year and kept in good working order.



Fire station tours

A fire station tour can be a great way for individuals or groups to learn about fire safety, see the equipment firefighters use, and gain a better understanding of the role firefighters play in the community. This can also be a great opportunity to recruit new volunteers.

Children's programming

Firefighters teach children important fire safety skills to help them stay safe during an emergency.

- How to safely leave a building during a fire
- To stay low under smoke.
- To test doors for heat before opening them
- How to call 9-1-1 and give their address
- Why working smoke alarms are important
- Not to hide during a fire





HOW WE LEARN

When firefighters deliver public education, how they teach matters as much as what they teach. By adapting to different learning styles, firefighters can train others more effectively and make safety messages easier to remember.

Learning styles: TELL-SHOW-DO

People usually learn in three main ways. People tend to favour one or two.

Auditory Learning	Learning by hearing (like listening to a classroom lecture)	
Visual Learning	Learning by seeing (such as diagrams, pictures, or demonstrations)	
Tactile Learning	Learning by doing (like practicing skills in the Defensive Firefighting Training Program)	

That's why, when we teach, we often use the TELL-SHOW-DO method. This approach includes all three learning styles: we tell (auditory), show (visual), and do (tactile). It also repeats the information in three ways, which helps learners understand and remember it better.



Explain the steps using the PASS method:
Pull the pin, Aim at the base of the fire,
Squeeze the handle, Sweep side to side.

Demonstrate each step with a real fire extinguisher so learners can see how it's done.

Have learners practice using an extinguisher themselves to build skill and confidence.



What's your dominant learning style?
Scan the QR code to find out



SKILL DRILLS



SKILL DRILLS

Practice the following skills. Each step will be assessed in the NWT Defensive Firefighter Training program



SKILL DRILL 9-1: Teach Exit-Drills-In-The-Home (EDITH)

1	TELL: Explain the importance of having a sufficient number of working smoke alarms throughout the house and making a quick exit when a fire occurs
2	TELL: Explain that there should be a smoke alarm in every sleeping room, outside each sleeping area, and on every level of the house, including the basement (NFPA, EMAC, 2017)
3	TELL: Explain why residents should sleep with bedroom doors closed
4	SHOW: Show an actual emergency home escape plan
5	DO: Have participants draw a map of each level of their house, showing all windows and all doors. Have them plan two escape routes from each room, making sure all doors and windows are operable and accessible
6	SHOW/DO: Show participants how to follow their own plans: <ul style="list-style-type: none">• Show participants how to roll out of bed and crawl to the exit when they hear a smoke alarm or smell smoke<ul style="list-style-type: none">◦ <i>Have them do the above</i>• Show participants how to check exit doors for heat and to not open a door if it is hot<ul style="list-style-type: none">◦ <i>Have them do the above</i>• Show participants how to follow the escape route to the pre-established meeting place (muster point)<ul style="list-style-type: none">◦ <i>Have them do the above</i>• Show participants ways to ensure that the fire department has been called<ul style="list-style-type: none">◦ <i>Have them mimic the above</i>
7	TELL: Emphasize the importance of never re-entering a burning building



SKILL DRILL 9-2: Deliver smoke alarm presentation

1	TELL: Explain importance of properly installing and maintaining smoke alarms as recommended by manufacturer
2	TELL: Stress the importance of testing smoke alarms once a month using the test button: <ul style="list-style-type: none">• <i>Show them how to do the above</i>• <i>Have them do the above</i>
3	TELL: Explain that alkaline batteries in alarms should be changed every six months: <ul style="list-style-type: none">• <i>Show them how to do the above</i>• <i>Have them do the above</i>
4	TELL: Explain that all smoke alarms should be replaced every 10 years
5	TELL: Emphasize the need to clean smoke alarms regularly: <ul style="list-style-type: none">• <i>Show them how to do the above</i>• <i>Have them do the above</i>



SKILL DRILLS

Practice the following skills. Each step will be assessed in the NWT Defensive Firefighter Training program



SKILL DRILL 9-3: Conduct home safety survey

1	Check for a visible house number
2	Look outside the house for accumulated trash, overgrown shrubs, and blocked exits
3	Teach by telling: Explain the purpose of the fire safety survey to the occupant
4	Check inside house for properly working smoke alarms, carbon monoxide (CO) alarms and fire extinguishers
5	Teach by telling and/or showing: Stress importance of proper cooking procedures and safe storage of cooking oils, and, flammable objects
6	Teach by telling and/or showing: Explain the safe use of fireplaces, heating stoves, and portable heaters, and to always follow the manufacturer's recommendations for use
7	Teach by telling, showing and doing: Help building occupants identify primary and alternate escape routes
8	Look for improper wiring, use of candles, and evidence of careless smoking
9	Complete the inspection form
10	Teach by telling: Review the results of the fire safety survey with the building occupants
11	Teach by telling: Describe the steps that need to be taken to minimize the identified hazards
12	Give a copy of the inspection form to the occupants
13	Leave fire and life safety brochures/information with the building occupants
14	File your report according to your department's policies





LEARNING DEBRIEF

REMEMBER

- Developing proper work habits during training in this course helps ensure safety later
- Do not attempt anything you feel is beyond your ability or knowledge
- Tell someone if you see something that you feel is an unsafe practice
- Continue to learn teamwork and practice working as a team
- A firefighter injured during training should not return until medically cleared for duty

Reflect on the following questions. Jot down notes or sketches in the spaces provided.

<p>Why is it important for firefighters to teach people how to stay safe during a fire?</p>	
<p>How can practicing EDITH and doing home fire safety checks help protect families?</p>	
<p>What do you think is the most important message to share with the public as a firefighter, and how would you make sure people understand and remember it?</p>	



APPENDICES

APPENDIX 1: Sample Lesson Plan (Skill Drill 9-1)

Teaching EDITH

Lesson Objectives

By the end of this lesson, participants will be able to:

1. Explain the importance of having working smoke alarms on every level of a home.
2. Describe recommended smoke-alarm placement following NFPA/EMAC (2017).
3. Explain why sleeping with bedroom doors closed increases survival time.
4. Demonstrate how to create and teach a household emergency escape plan.
5. Practice safe movement, exit, and muster-point procedures for home fires.
6. Reinforce the “Never re-enter a burning building” message.

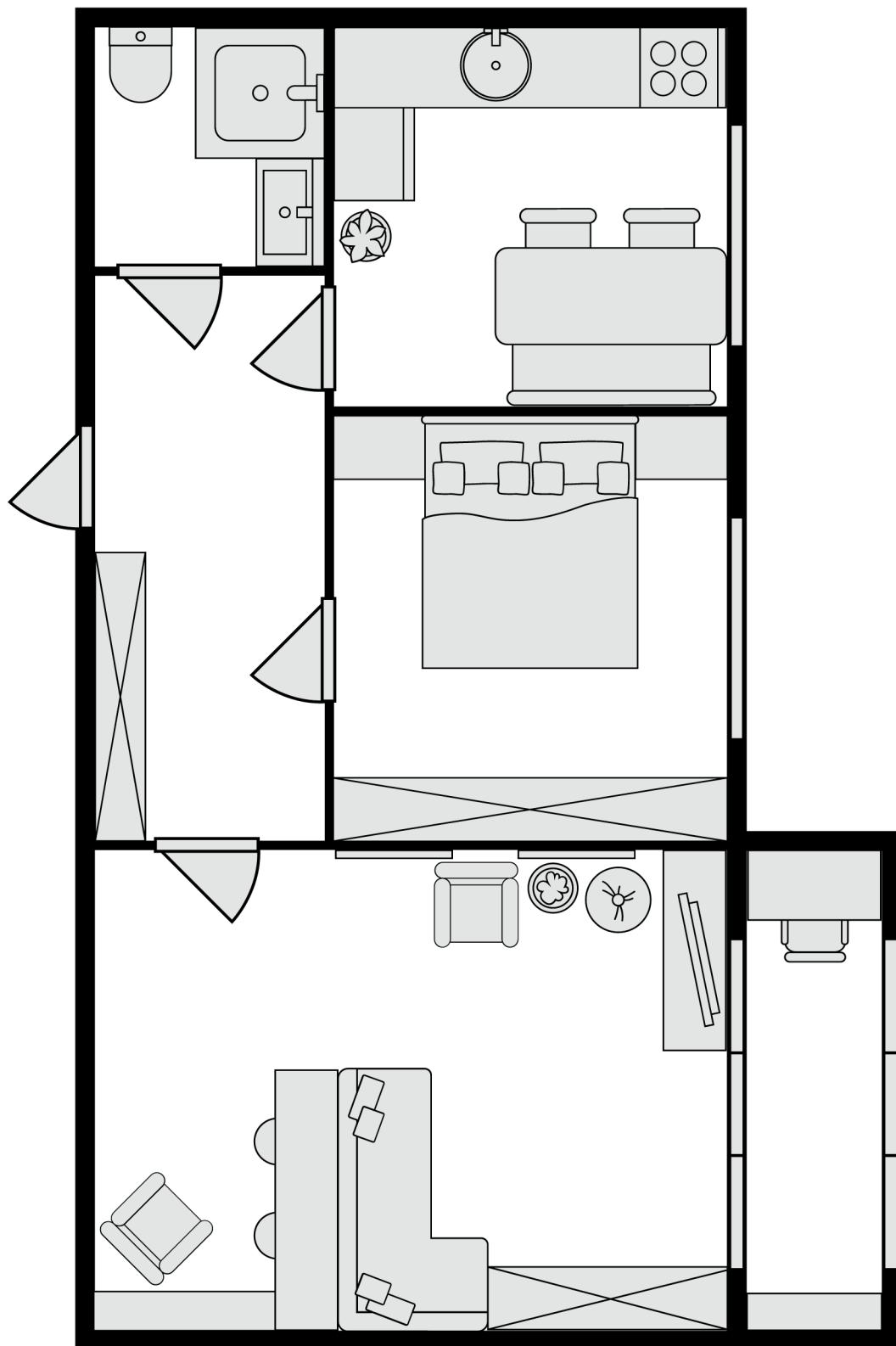
Materials / Resources

- Whiteboard or flipchart
- Sample printed home escape plan diagram
- Paper and pencils (one sheet per participant)
- Floor plan examples (optional)
- Markers or coloured pencils
- Access to a doorway and safe open space for crawl demonstration

Step	Method	Instructor Actions	Participant Actions
1. Importance of Smoke Alarms	Tell	Explain that working smoke alarms save lives and must be installed throughout the home.	Listen and ask questions about common alarm issues.
2. Proper Placement	Tell	Explain locations: every sleeping room, outside each sleeping area, and on every level including basements (NFPA 2017).	Identify where alarms should be in their own homes.
3. Sleeping with Doors Closed	Tell	Discuss how closed doors slow fire spread and smoke infiltration.	Reflect on their own sleeping habits and discuss benefits.
4. Demonstrate a Home Escape Plan	Show	Display or project a completed example. Highlight key features: two exits per room, meeting place, marked alarms.	Observe and note features for their own maps.
5. Draw Personal Plans	Do	Instruct participants to draw each level of their home, marking all doors, windows, and two exits from each room.	Create their personal home escape plans.
6. Practice the Plan (Crawl & Exit)	Show/Do	- Demonstrate how to roll out of bed, crawl low under smoke, check doors for heat, and follow escape routes.- Emphasize meeting place and calling 911.	Repeat each demonstrated skill step: roll, crawl, check door, follow route, identify meeting place, mimic calling the fire department.
7. Reinforce “Never Re-Enter”	Tell	Emphasize that no one should go back inside a burning building for belongings or pets.	Discuss how to communicate this message to family members or community residents.

APPENDIX 2: Sample Floorplan (Skill Drill 9-1)

Encourage participants to draw a floor plan of their own home. This sample is provided for Skill Drill 9-1 (NWT Defensive Firefighter Training) and can be photocopied if needed.



APPENDIX 3: Sample Lesson Plan (Skill Drill 9-2)

Smoke Alarm Presentation

Lesson Objectives

By the end of this lesson, participants will be able to:

1. Explain the purpose and importance of working smoke alarms in early fire detection.
2. Identify the correct types, placement, and maintenance requirements for smoke alarms.
3. Demonstrate proper installation (mounting, wiring, and battery insertion).
4. Maintain and record smoke alarm checks using a log sheet.

Materials / Resources

- Smoke alarms (one per participant)
- Screwdriver
- Batteries (for battery-operated alarms)
- Manufacturer's instruction sheets
- Cleaning cloth or small vacuum brush
- Log sheets for recording installation and maintenance

Step	Method	Instructor Actions	Participant Actions
1. Importance of Installation and Maintenance	Tell	Explain why properly installing and maintaining smoke alarms is essential for early warning and safety.	Listen and discuss why some alarms fail to work.
2. Testing Smoke Alarms Monthly	Tell / Show / Do	Tell: Emphasize testing once a month using the test button. Show: Demonstrate pressing and holding the test button until the alarm sounds. Do: Have participants test their own alarms.	Observe, then test their own alarms.
3. Changing Batteries Every Six Months	Tell / Show / Do	Tell: Explain that alkaline batteries should be changed every six months. Show: Demonstrate how to open the battery compartment and replace the battery correctly. Do: Have participants replace the batteries in their alarms.	Follow the steps to replace batteries.
4. Replacing Alarms Every 10 Years	Tell	Explain that all smoke alarms — including hardwired units — must be replaced every 10 years as sensors wear out.	Note the replacement guideline.
5. Cleaning Smoke Alarms Regularly	Tell / Show / Do	Tell: Emphasize cleaning alarms regularly to prevent dust or insects from causing false alarms. Show: Demonstrate using a soft cloth or vacuum brush to clean around the alarm vents. Do: Have participants practice cleaning their alarms.	Practice cleaning using the demonstrated technique.

Appendix 4: SURVEY TEMPLATE (Skill Drill 9-3)

Home Safety Survey

EXTERIOR INSPECTION		Y / N
<p>Is the house number clearly visible from the street for emergency responders? <input type="checkbox"/> <input type="checkbox"/></p> <p>Is exterior lighting functional - provides adequate lighting around the outside of the home? <input type="checkbox"/> <input type="checkbox"/></p> <p>Are exit paths clear of obstructions and easy to access? <input type="checkbox"/> <input type="checkbox"/></p> <p>Are windows, doors, and pathways clear of blockages like trees and shrubs? <input type="checkbox"/> <input type="checkbox"/></p>		
<p>Notes:</p>		

ENTRANCE/EXIT POINTS		Y / N
<p>Can all exterior doors be easily opened and locked? <input type="checkbox"/> <input type="checkbox"/></p> <p>Can all windows be easily opened from the inside? <input type="checkbox"/> <input type="checkbox"/></p> <p>If the home has multiple stories, are there escape ladders available and do household members know? <input type="checkbox"/> <input type="checkbox"/></p>		
<p>Notes:</p>		

INTERIOR INSPECTION		Y / N
<p>Are smoke alarms installed in each bedroom, outside sleeping areas, and on every level of the home, including basement? <input type="checkbox"/> <input type="checkbox"/></p> <p>Test each smoke alarm. Does each smoke alarm work properly? <input type="checkbox"/> <input type="checkbox"/></p> <p>Are carbon monoxide alarms installed outside sleeping areas and on every level of the home? <input type="checkbox"/> <input type="checkbox"/></p> <p>Test each carbon monoxide alarm. Does each carbon monoxide alarm work properly? <input type="checkbox"/> <input type="checkbox"/></p> <p>Are there fire extinguishers in the kitchen, garage, and other high-risk areas? <input type="checkbox"/> <input type="checkbox"/></p> <p>Are fire extinguishers easily accessible? <input type="checkbox"/> <input type="checkbox"/></p> <p>Do adult household members know how to use them? <input type="checkbox"/> <input type="checkbox"/></p> <p>Are all electrical outlets free from being overloaded and without frayed or damaged cords? <input type="checkbox"/> <input type="checkbox"/></p> <p>Is all heating equipment, such as furnaces and space heaters, in good condition and recently serviced? <input type="checkbox"/> <input type="checkbox"/></p> <p>Is heating equipment at least three feet away from any flammable materials? <input type="checkbox"/> <input type="checkbox"/></p> <p>Does this household have a home escape plan that includes two ways out of every room? <input type="checkbox"/> <input type="checkbox"/></p> <p>In the kitchen, are flammable items (e.g., towels, curtains) kept away from the stove? <input type="checkbox"/> <input type="checkbox"/></p> <p>Does the fireplace or woodstove have a proper screen or door? <input type="checkbox"/> <input type="checkbox"/></p> <p>Are chimneys cleaned regularly? <input type="checkbox"/> <input type="checkbox"/></p> <p>In the garage, are flammable liquids in approved containers and stored away from ignition sources? <input type="checkbox"/> <input type="checkbox"/></p> <p>In the garage, are areas being kept uncluttered? <input type="checkbox"/> <input type="checkbox"/></p>		
<p>Notes:</p>		

GLOSSARY OF TERMS

Communications

- **ABC Button:** Customizable preset button on radios
- **Channel Selector:** Dial or button to change radio channels
- **Communication Feedback Loop:** Confirming messages by repeating them back
- **Decoding:** Interpreting the received message
- **Emergency Button:** Sends alert for immediate help
- **Emergency Line:** Dedicated line for urgent calls
- **Emergency Traffic:** High-priority message overrides others
- **Encoding:** Turning thoughts into a message
- **Feedback:** Receiver's response to a message
- **Message:** Information being communicated
- **Monitor/Scan Buttons:** Used to listen to multiple radio channels
- **Noise:** Anything that disrupts communication
- **Portable Radio:** Handheld radio for communication
- **Push-to-Talk (PTT) Button:** Press to talk on a radio
- **Receiver:** Person who gets the message
- **Sender:** Person who sends the message
- **Transmission:** Sending a message over radio

Equipment

- **Apparatus:** Firefighting vehicle
- **Deck Gun:** Fixed, high-volume water device on fire trucks
- **Dry Barrel Hydrant:** A hydrant that drains to prevent freezing
- **Handline:** Hose operated by hand
- **Hose Appliance:** Tools used with fire hoses to control flow
- **Hose Couplings:** Connect hoses to each other or a water source
- **Hose Lays:** How hoses are arranged from source to scene
- **Hose Loads:** Hose stacking methods for easy deployment
- **Nozzle:** Controls water stream from a hose
- **Pumper Truck/Attack Engine:** Vehicle with pump, hose, and water for fire attack
- **SCBA (Self-Contained Breathing Apparatus):** Air tank and mask for breathing in smoke-filled areas
- **Standpipe:** Built-in pipe system for supplying water inside buildings
- **Storz-Type Coupling:** Quick-connect hose ends without threads
- **Suction Hose:** Pulls water from static sources
- **Supply Hose:** Delivers water from source to pump
- **Threaded Couplings:** Screw-type hose connections
- **Turnout Gear:** Protective clothing worn during responses

Education and Training

- **Codes and Standards:** Laws and guidelines for fire safety
- **Exit Drills In The Home (EDITH):** Practice home fire escape plans
- **Home Safety Surveys:** Checking homes for fire safety issues
- **NFPA (National Fire Protection Association):** Sets fire safety standards

Fire Science

- **Backdraft:** Explosive ignition when oxygen re-enters a smoldering fire
- **Combustion:** Chemical process of burning
- **Conduction:** Heat transfer through contact
- **Convection:** Heat movement through air or gas
- **Decay Stage:** Fire slows as fuel runs out
- **Fire Tetrahedron:** Fire needs heat, fuel, oxygen, and a chemical reaction to burn
- **Fire Triangle:** Fire needs heat, fuel, and oxygen to start
- **Flashover:** Sudden full-room ignition
- **Fully-Developed Stage:** Maximum burning
- **Growth Stage:** Fire starts spreading and intensifying
- **Heat Transfer:** Movement of heat via conduction, convection, or radiation
- **Incipient Stage:** Fire just igniting
- **Light (Thermal) Energy:** Heat and light given off by fire
- **Mechanical Energy:** Energy from movement, sometimes causes sparks
- **Oxidation:** Reaction of fuel with oxygen
- **Pyrolysis:** Breakdown of material from heat before ignition
- **Radiation:** Heat traveling in waves
- **Smoke Colour:** Helps indicate type of material burning
- **Smoke Explosion:** Ignition of trapped fire gases

Incident Command Structure

- **Chain of Command:** Order of authority
- **Division:** Personnel and resources assigned to a geographic location
- **Emergency Management Organization (EMO):** Coordinates emergency responses
- **Group:** Personnel and resources assigned to a specific task
- **Incident Action Plan (IAP):** Plan for managing an incident
- **Incident Command System (ICS):** Structured approach to managing emergencies
- **Incident Commander (IC):** Person in charge of an incident
- **Operations Function:** Part of ICS that manages tactical operations
- **Span of Control:** Number of people a leader can manage (usually 3–7)
- **Single Resource:** One unit (e.g., one engine or person)
- **Unity of Command:** Each person reports to only one boss

Operations and Tactics

- **Advancing Hose:** Moving hose toward the fire
- **Attack Hose:** Used directly on the fire
- **Charged Hose:** Filled with water, ready to use
- **Defensive Operations:** Fighting fire from a distance
- **Establishing Command:** Identifying who's in charge
- **Evolution:** Planned firefighting tasks or maneuvers
- **Exposure:** Nearby object at risk of catching fire
- **Freelancing:** Acting without direction during an incident
- **Initiating Response:** Units are en route
- **Overhaul:** Checking for and putting out hidden fire
- **PAR (Personnel Accountability Report):** Roll call for safety
- **Rehabilitation:** Rest and recovery for firefighters
- **Salvage:** Protecting property during/after firefighting
- **Scene Size-Up:** Assessing what's happening at the scene
- **Size-Up:** First look and judgment of the fire scene
- **Staging Area:** Place where people/equipment wait near the scene

PPE and Safety

- **Accountability Tag:** Tracks firefighter location and status
- **Bunker Gear:** Full protective firefighting gear
- **Carcinogens:** Cancer-causing substances from fire/smoke
- **Critical Incident Stress Management (CISM):** Mental health support after tough calls
- **Freelancing:** Acting without direction during an incident
- **PPE (Defensive):** Gear for indirect fire attack
- **PPE (Structural):** Gear for entering burning buildings
- **Rehab Officer:** Person monitoring health in rehab area
- **Safety Culture:** Shared values and actions for safety
- **Unacceptable Risk:** Danger too high to allow action

Radio Language and Protocols

- **Arrival on Scene:** Unit has reached the incident
- **Cancelled Response:** Units not needed anymore
- **Clearing the Scene:** Leaving the scene, ready for next call
- **Incident Type:** Describes the emergency
- **Location Indicators:** Help identify where something is
- **Phonetic Alphabet:** A set of code words used to clearly communicate letters over radio
- **Priorities:** Life safety, property protection, incident control
- **Resource Request:** Ask for more units/equipment
- **Situation Report:** Update on the current status

Water Supply

- **Dry Hydrant:** Pipe for pulling water from lakes or ponds
- **Portable Pump:** Moveable water pump
- **Portable Tank:** Temporary water holding tank at the scene
- **Pumper Truck/Attack Engine:** Vehicle with pump, hose, and water for fire attack
- **Static Water Supply:** Water from non-pressurized sources like ponds
- **Water Fill Station:** Spot for refilling water trucks
- **Water Shuttling:** Moving water from water source to scene

