



**FIRE FIGHTER I  
STUDENT KNOWLEDGE & SKILL OBJECTIVES  
CHECK-OFF SHEET**

**ADVISING NOTE:** Submitted course work must include proof of Knowledge and Skills Document completion.  
\*Minimum hours 120 plus 16 for Emergency Vehicle Operation Course are required. The objectives listed below shall be completed by the student, and verified by the program director.

Course Start Date: \_\_\_\_\_

End Date: \_\_\_\_\_

Student Name: \_\_\_\_\_

**Fire Fighter I 5.1: General**

For qualification at Level I, the Fire Fighter I shall meet the general knowledge requirements, the general skill requirements, the Job Performance Requirements (JPRs) defined later in this document.

**General Knowledge Requirements:** For qualification at Level I, the fire fighter candidate shall meet the general knowledge requirements in the general skill requirements in the JPRs defined NFPA 1001 of this standard.

**General Skills Requirements:** The ability to don personal protective clothing within 1 minute; doff personal protective clothing and prepare for reuse; hoist tools and equipment using ropes and the correct knot; and locate information in departmental documents and standard or code materials.

**Objectives**

NFPA	Topic	Objective	Date
CR	Emergency Medical Care	Meet the competencies for emergency medical care in the following areas: infection control, CPR, bleeding control, and shock management.	
5.1	Ohio HazMat/WMD	Meet the competencies for the "Ohio Hazmat & WMD Operation for the First Responder". This meets the requirements of Operation Level of NFPA 472 Standard for Professional Competence of Responder to Hazardous Materials Incidents.	

**Fire Fighter I 5.1.1 & 5.1.2: General Knowledge & Skills**

The organization of the fire department; the role of the Fire Fighter I in the organization; the mission of fire service; the fire department's standard operating procedures (SOPs) and rules and regulations as they apply to the Fire Fighter I; the role of other agencies as they relate to the fire department; aspects of the fire department's member assistance program; the importance of physical fitness and a healthy lifestyle to the performance of the duties of a fire fighter; the critical aspects of a fire department occupational safety and health program, as they apply to the Fire Fighter I; knot types and usage; the difference between life safety and utility rope; reasons for placing rope out of service; the types of knots to use for given tools, ropes, or situations; hoisting methods for tools and equipment; and using rope to support response activities.

**General Knowledge Requirements:** For qualification at Level I, the fire fighter candidate shall meet the general knowledge requirements in the general skill requirements in the JPRs defined NFPA 1001 of this standard.

**General Skills Requirements:** The ability to don personal protective clothing within 1 minute; doff personal protective clothing and prepare for reuse; hoist tools and equipment using ropes and the correct knot; and locate information in departmental documents and standard or code materials.

**Objectives**

<b>NFPA</b>	<b>Topic</b>	<b>K/S</b>	<b>Objective</b>	<b>Date</b>
5.1.1	General	K	Discuss the critical aspects of fire department's member assistance program, the critical aspects of NFPA 1500, Fire Department Occupational Safety and Health Program.	
5.1.1	General	K	State the mission of the fire service.	
5.1.1	General	K	Describe the organization of the fire department.	
5.1.1	General	K	Discuss the role of the Firefighter 1 within the organization.	
5.1.1	General	K	Explain a fire department's standard operating procedures, rules, and regulations as they apply to firefighters.	
5.1.1	General	K	Discuss the role of their agencies as they relate to the department.	
5.1.1	General	K	Discuss knot types and usages.	
5.1.1	General	K	Describe the differences between life safety and utility rope.	
5.1.1	General	K	Explain the reasons for placing rope out of service.	
5.1.1	General	K	Discuss how the different types of knots are used for given tools, ropes, or situation.	
5.1.1	General	K	Discuss how rope is used to support response activities.	
5.1.2	General	S	Demonstrate the hoisting methods for tools and equipment.	
5.1.2	General	S	Perform the ability to don personal protective clothing within 1 minute.	
5.1.2	General	S	Perform the ability to doff personal protective clothing and prepare for reuse.	
5.1.2	General	S	Demonstrate hoisting tools and equipment using ropes and the correct knot.	
5.1.2	General	S	Locate and clarify information in departmental documents, standard, and code materials.	

**Fire Fighter I 5.2.1: Fire Department Communications.**

This duty shall involve initiating responses, receiving telephone calls, and using fire department communications equipment to correctly relay verbal or written information, according to the JPRs in 5.2.1 through 5.2.3. Initiate the response to a reported emergency, given the report of an emergency, fire department SOPs, and communications equipment, so that all necessary information is obtained, communications equipment is operated correctly, and the information is relayed promptly and accurately to the dispatch center.

**General Knowledge Requirements:** Procedures for reporting an emergency, departmental SOPs for taking and receiving alarms, radio codes or procedures, and information needs of dispatch center.

**General Skills Requirements:** The ability to operate fire department communications equipment, relay information, and record information.

**Objectives**

NFPA	Topic	K/S	Objective	Date
5.2.1	Emergency Response	K	Explain the procedures for reporting an emergency, departmental SOPs for taking and receiving alarms, radio codes or procedures, and information needs of dispatch center.	
5.2.1	Emergency Response	K	Discuss the departmental SOPs for taking and receiving alarms, radio codes, and procedures.	
5.2.1	Emergency Response	S	Demonstrate the ability to operate fire department communications equipment, relay information, and record information.	

**Fire Fighter I 5.2.2: Fire Department Communications.**

Receive a telephone call, given a fire department phone, so that procedures for answering the phone are used and the caller's information is relayed.

**General Knowledge Requirements:** Fire department procedures for answering non-emergency telephone calls.

**General Skills Requirements:** The ability to operate fire station telephone and intercom equipment.

**Objectives**

NFPA	Topic	K/S	Objective	Date
5.2.2	Receive Call	K	Discuss the fire department procedures for answering non-emergency telephone calls.	
5.2.2	Receive Call	S	Demonstrate the ability to operate fire station telephone and intercom equipment.	

**Fire Fighter I 5.2.3: Fire Department Communications.**

Transmit and receive messages via the fire department radio, given a fire department radio and operating procedures, so that the information is accurate, complete, clear, and relayed within the time established by the AHJ.

**General Knowledge Requirements:** Departmental radio procedures and etiquette for routine traffic, emergency traffic, and emergency evacuation signals.

**General Skills Requirements:** The ability to operate radio equipment and discriminate between routine and emergency traffic.

**Objectives**

NFPA	Topic	K/S	Objective	Date
5.2.3	Communication	K	Discuss the departmental radio procedures and etiquette for routine traffic, emergency traffic, and emergency evacuation signals.	
5.2.3	Communication	S	Perform the ability to operate radio equipment and discriminate between routine and emergency traffic.	

**Fire Fighter I 5.3.1: Fire Ground Operations**

Use self-contained breathing apparatus (SCBA) during emergency operations, given SCBA and other personal protective equipment, so that the SCBA is correctly donned and activated within 1 minute, the SCBA is correctly worn, controlled breathing techniques are used, emergency procedures are enacted if the SCBA fails, all low-air warnings are recognized, respiratory protection is not intentionally compromised, and hazardous areas are exited prior to air depletion.

**General Knowledge Requirements:** Conditions that require respiratory protection, uses and limitations of SCBA, components of SCBA, donning procedures, breathing techniques, indications for and emergency procedures used with SCBA, and physical requirements of the SCBA wearer.

**General Skills Requirements:** The ability to control breathing, replace SCBA air cylinders, use SCBA to exit through restricted passages, initiate and complete emergency procedures in the event of SCBA failure or air depletion, and complete donning procedures.

**Objectives**

NFPA	Topic	K/S	Objective	Date
5.3.1	SCBA	K	List and discuss the components that make up the SCBA assembly including low air alarms.	
5.3.1	SCBA	K	Convey breathing techniques while wearing SCBA.	
5.3.1	SCBA	K	Describe the indicators for and discuss possible emergency procedures while wearing SCBA.	
5.3.1	SCBA	K	List the physical requirements for wearing SCBA.	
5.3.1	SCBA	S	Exit a restricted passage while wearing full PPE and breathing air from a SCBA unit.	
5.3.1	SCBA	S	Demonstrate the ability to control breathing while breathing air from a SCBA unit.	
5.3.1	SCBA	S	Replace a depleted air cylinder with a full air cylinder on a SCBA unit.	
5.3.1	SCBA	S	Demonstrate emergency procedures taken in the event of a SCBA failure or air cylinder depletion.	
5.3.1	SCBA	S	Don all personal protective clothing and equipment correctly, within two minutes, breathing air and pass device activated.	

**Fire Fighter I 5.3.2: Fire Ground Operations**

Respond on apparatus to an emergency scene, given personal protective clothing and other necessary personal protective equipment, so that the apparatus is correctly mounted and dismounted, seat belts are used while the vehicle is in motion, and other personal protective equipment is correctly used.

**General Knowledge Requirements:** Mounting and dismounting procedures for riding fire apparatus, hazards and ways to avoid hazards associated with riding apparatus, prohibited practices, and types of department personal protective equipment and the means for usage.

**General Skills Requirements:** The ability to use each piece of provided safety equipment.

**Objectives**

NFPA	Topic	K/S	Objective	Date
5.3.2	Response Safety	K	Discuss the mounting and dismounting procedures for riding fire and EMS apparatus.	
5.3.2	Response Safety	K	Describe the hazards and ways to avoid hazards which cause accidents associated with riding fire and EMS apparatus.	
5.3.2	Response Safety	K	List the practices that are prohibited while riding fire and EMS apparatus.	

5.3.2	Response Safety	K	List the common types of personal protective equipment used while riding on fire and EMS apparatus.	
5.3.2	Response Safety	S	Demonstrate the proper use for each piece of safety equipment provided, including wearing seat belts.	

**Fire Fighter I 5.3.3: Fire Ground Operations**

Establish and operate in work areas at emergency scenes, given protective equipment, traffic and scene control devices, structure fire and roadway emergency scenes, traffic hazards and downed electrical wires, an assignment, and SOPs, so that procedures are followed, protective equipment is worn, protected work areas are established as directed using traffic and scene control devices, and the fire fighter performs assigned tasks only in established, protected work areas.

**General Knowledge Requirements:** Potential hazards involved in operating on emergency scenes including vehicle traffic, utilities, and environmental conditions; proper procedures for dismounting apparatus in traffic; procedures for safe operation at emergency scenes; and the protective equipment available for members' safety on emergency scenes and work zone designations.

**General Skills Requirements:** The ability to use personal protective clothing, deploy traffic and scene control devices, dismount apparatus, and operate in the protected work areas as directed.

**Objectives**

NFPA	Topic	K/S	Objective	Date
5.3.3	Scene Control	K	Explain the potential hazards involved in operating at emergency scenes including traffic control, utilities, and environmental conditions.	
5.3.3	Scene Control	K	Describe the proper procedures for dismounting fire and EMS apparatus in traffic and at other emergency and non-emergency scenes.	
5.3.3	Scene Control	K	Explain the procedures and use of different types of protective equipment available to ensure the user's safety, while operating at emergency scenes and work zone designations.	
5.3.3	Scene Control	S	Demonstrate how to safely dismount apparatus, don appropriate safety equipment for the given situation, and deploy traffic and scene control devices to protect the work area.	

**Fire Fighter I 5.3.4: Fire Ground Operations**

Force entry into a structure, given personal protective equipment, tools, and an assignment, so that the tools are used as designed, the barrier is removed, and the opening is in a safe condition and ready for entry.

**General Knowledge Requirements:** Basic construction of typical doors, windows, and walls within the department's community or service area; operation of doors, windows, and locks; and the dangers associated with forcing entry through doors, windows, and walls.

**General Skills Requirements:** The ability to transport and operate hand and power tools and to force entry through doors, windows, and walls using assorted methods and tools.

**Objectives**

NFPA	Topic	K/S	Objective	Date
5.3.4	Forcible Entry	K	List the basic construction of typical doors, windows, and walls found within the community or service area.	
5.3.4	Forcible Entry	K	Explain the operation of a variety of doors, windows, and locks use within the community or service area.	
5.3.4	Forcible Entry	K	Convey dangers associated when forcing entry through doors, windows, walls, and locks.	
5.3.4	Forcible Entry	S	Demonstrate how to safely carry, operate, and use common forcible entry tools to force entry through doors, windows, walls, and locks.	

**Fire Fighter I 5.3.5: Fire Ground Operations**

Exit a hazardous area as a team, given vision-obscured conditions, so that a safe haven is found before exhausting the air supply, others are not endangered, and the team integrity is maintained.

**General Knowledge Requirements:** Personnel accountability systems, communication procedures, emergency evacuation methods, what constitutes a safe haven, elements that create or indicate a hazard, and emergency procedures for loss of air supply.

**General Skills Requirements:** The ability to operate as a team member in vision-obscured conditions, locate and follow a guideline, conserve air supply, and evaluate areas for hazards and identify a safe haven.

**Objectives**

NFPA	Topic	K/S	Objective	Date
5.3.5	Exit Hazard	K	Define emergency radio traffic communication procedures, and emergency evacuation signals/methods.	
5.3.5	Exit Hazard	K	Describe personnel accountability systems, emergency escape, and what constitutes a safe haven.	
5.3.5	Exit Hazard	K	Describe the emergency procedures for loss of air supply.	
5.3.5	Exit Hazard	K	List the elements that create and/or indicate a hazardous environment.	
5.3.5	Exit Hazard	S	Conduct a search, as a team member, in a vision-obscured condition, using all available senses to evaluate for hazards.	
5.3.5	Exit Hazard	S	Exit a hazardous area by searching for and finding a guide line then following the line to a safe haven.	
5.3.5	Exit Hazard	S	Demonstrate methods to conserve SCBA air.	

**Fire Fighter I 5.3.6: Fire Ground Operations**

Set up ground ladders, given single and extension ladders, an assignment, and team members if needed, so that hazards are assessed, the ladder is stable, the angle is correct for climbing, extension ladders are extended to the necessary height with the fly locked, the top is placed against a reliable structural component, and the assignment is accomplished.

**General Knowledge Requirements:** Parts of a ladder, hazards associated with setting up ladders, what constitutes a stable foundation for ladder placement, different angles for various tasks, safety limits to the degree of angulation's, and what constitutes a reliable structural component for top placement.

**General Skills Requirements:** The ability to carry ladders, raise ladders, extend ladders and lock flies, determine that a wall and roof will support the ladder, judge extension ladder height requirements, and place the ladder to avoid obvious hazards.

**Objectives**

NFPA	Topic	K/S	Objective	Date
5.3.6	Ground Ladder	K	List the parts of an extension ladder.	
5.3.6	Ground Ladder	K	Explain the hazards associated with setting up ground ladders.	
5.3.6	Ground Ladder	K	Explain what constitutes a stable foundation for ladder placement.	
5.3.6	Ground Ladder	K	Describe the different climbing angles need for safe completion of various tasks along with the hazards associated with each angle.	
5.3.6	Ground Ladder	K	Explain what constitutes a reliable structural component for tip placement.	

5.3.6	Ground Ladder	S	Demonstrate carries and raises for single and extension ladders along with extending the fly section(s) assuring the fly section is lock.	
5.3.6	Ground Ladder	S	Establish, with certainty, that a wall or roof will support a ladder and that the ladder is at the correct climbing angle for the given task.	
5.3.6	Ground Ladder	S	Select the correct length extension ladder. For a given height, and properly place the ladder addressing and avoiding safety hazards.	
5.3.6	Ground Ladder	S	Climb and leg lock an extension ladder (this is not an objective for 2008 but it should be listed as one).	
5.3.6	Ground Ladder	S	Climb and leg lock an extension ladder and work with a tool (this is not an objective for 2008 but it should be listed as one).	

### Fire Fighter I 5.3.7: Fire Ground Operations

Attack a passenger vehicle fire operating as a member of a team, given personal protective equipment, attack line, and hand tools, so that hazards are avoided, leaking flammable liquids are identified and controlled, protection from flash fires is maintained, all vehicle compartments are overhauled, and the fire is extinguished.

**General Knowledge Requirements:** Principles of fire streams as they relate to fighting automobile fires; precautions to be followed when advancing hose lines toward an automobile; observable results that a fire stream has been properly applied; identifying alternative fuels and the hazards associated with them; dangerous conditions created during an automobile fire; common types of accidents or injuries related to fighting automobile fires and how to avoid them; how to access locked passenger, trunk, and engine compartments; and methods for overhauling an automobile.

**General Skills Requirements:** The ability to identify automobile fuel type; assess and control fuel leaks; open, close, and adjust the flow and pattern on nozzles; apply water for maximum effectiveness while maintaining flash fire protection; advance 38 mm (1½ in.) or larger diameter attack lines; and expose hidden fires by opening all automobile compartments.

#### Objectives

NFPA	Topic	K/S	Objective	Date
5.3.7	Vehicle Fire	K	Convey the principles of fire streams as they relate to fighting vehicle fires.	
5.3.7	Vehicle Fire	K	List the dangerous conditions created during a vehicle fire along with the precautions taken when advancing hose lines towards these types of fires.	
5.3.7	Vehicle Fire	K	Describe the desired observable results of a properly applied fire stream to a vehicle fire.	
5.3.7	Vehicle Fire	K	Identify types of alternative fueled vehicles and list the hazards associated with each vehicle type.	
5.3.7	Vehicle Fire	K	Disclose the types of injuries associated with extinguishing vehicle fires along with procedures for avoiding these injuries.	
5.3.7	Vehicle Fire	K	Describe how to gain entry into locked trunks, engine compartments, and passenger compartments.	
5.3.7	Vehicle Fire	K	List procedures for conducting a safe and effective overhaul after extinguishing a vehicle fire.	
5.3.7	Vehicle Fire	S	Perform the proper procedures while advancing an 1 1/2 or larger diameter attack line, operating the nozzle patterns for maximum effectiveness, extinguishing the vehicle fire while maintaining flash fire protection.	
5.3.7	Vehicle Fire	S	Access all locked and unlocked compartments to expose and extinguish hidden fires.	
5.3.7	Vehicle Fire	S	Identify vehicle's fuel type and use proper procedures for controlling fuel leaks.	

## Fire Fighter I 5.3.8: Fire Ground Operations

Extinguish fires in exterior Class A materials, given fires in stacked or piled and small unattached structures or storage containers that can be fought from the exterior, attack lines, hand tools and master stream devices, and an assignment, so that exposures are protected, the spread of fire is stopped, collapse hazards are avoided, water application is effective, the fire is extinguished, and signs of the origin area(s) and arson are preserved.

**General Knowledge Requirements:** Types of attack lines and water streams appropriate for attacking stacked, piled materials and outdoor fires; dangers — such as collapse — associated with stacked and piled materials; various extinguishing agents and their effect on different material configurations; tools and methods to use in breaking up various types of materials; the difficulties related to complete extinguishment of stacked and piled materials; water application methods for exposure protection and fire extinguishment; dangers such as exposure to toxic or hazardous materials associated with storage building and container fires; obvious signs of origin and cause; and techniques for the preservation of fire cause evidence.

**General Skills Requirements:** The ability to recognize inherent hazards related to the material's configuration, operate handlines or master streams, break up material using hand tools and water streams, evaluate for complete extinguishment, operate hose lines and other water application devices, evaluate and modify water application for maximum penetration, search for and expose hidden fires, assess patterns for origin determination, and evaluate for complete extinguishment.

### Objectives

NFPA	Topic	K/S	Objective	Date
5.3.8	Exterior Fire	K	List the hazards and difficulties encountered while extinguishing and overhauling stacked piles of Class A materials.	
5.3.8	Exterior Fire	K	Describe the extinguishing agents, attack lines, and hose streams needed to effectively extinguish stacked materials and outdoor fires.	
5.3.8	Exterior Fire	K	Explain the effects of how each extinguishing agent should perform to extinguish different materials and material configurations.	
5.3.8	Exterior Fire	K	List methods, along with the tools required, to break up various types of materials.	
5.3.8	Exterior Fire	K	Describe methods used for water application for exposure protecting and fire suppression.	
5.3.8	Exterior Fire	K	List the hazards such as collapse, toxic fumes, and hazardous materials that may be found during fires in buildings, storage facilities and containers.	
5.3.8	Exterior Fire	K	Disclose obvious signs of fire origin and cause and list the techniques for preserving fire related evidence.	
5.3.8	Exterior Fire	S	From the exterior, recite potential hazards, operate hand lines and master streams to protect exposures and maximize penetration while extinguishing a Class A fire involving different configurations of materials, small attached buildings, and/or storage containers.	
5.3.8	Exterior Fire	S	Search for hidden fire, break up materials using hand tools, apply water streams, and evaluating for complete extinguishment.	
5.3.8	Exterior Fire	S	Assess fire, heat, and smoke patterns for determination of fire origin while protecting physical evidence.	

### Fire Fighter I 5.3.9

### Fire Ground Operations

Conduct a search and rescue in a structure operating as a member of a team, given an assignment, obscured vision conditions, personal protective equipment, a flashlight, forcible entry tools, hose lines, and ladders when necessary, so that ladders are correctly placed when used, all assigned areas are searched, all victims are located and removed, team integrity is maintained, and team members' safety — including respiratory protection — is not compromised.

**General Knowledge Requirements:** Use of forcible entry tools during rescue operations, ladder operations for rescue, psychological effects of operating in obscured conditions and ways to manage them, methods to determine if an area is tenable, primary and secondary search techniques, team members' roles and goals, methods to use and indicators of finding victims, victim removal methods (including various carries), and considerations related to respiratory protection.

**General Skills Requirements:** The ability to use SCBA to exit through restricted passages, set up and use different types of ladders for various types of rescue operations, rescue a fire fighter with functioning respiratory protection, rescue a fire fighter whose respiratory protection is not functioning, rescue a person who has no respiratory protection, and assess areas to determine tenability.

#### Objectives

NFPA	Topic	K/S	Objective	Date
5.3.9	Do Search	K	List and describe the proper use of forcible entry tools used during structural rescue operations.	
5.3.9	Do Search	K	Describe the proper placement of ground and aerial ladders during structural rescue operations.	
5.3.9	Do Search	K	Describe the physiological effects of operating in obscured conditions and ways to effectively manage them.	
5.3.9	Do Search	K	Describe methods to determine if an area is tenable and safe for interior operations.	
5.3.9	Do Search	K	Describe the proper techniques to conduct a primary search.	
5.3.9	Do Search	K	Describe the proper techniques to conduct a secondary search.	
5.3.9	Do Search	K	List and describe each team member's roles and goals during a structural search and rescue operation.	
5.3.9	Do Search	K	List and describe various methods to locate victims during a search and rescue operation.	
5.3.9	Do Search	K	Describe various methods and carries used to remove victims from a structure, on various floors, during search and rescue operations.	
5.3.9	Do Search	S	Demonstrate the various methods for maneuvering through restricted openings while wearing an SCBA.	
5.3.9	Do Search	S	Demonstrate the proper placement and use of ladders during rescue operations.	
5.3.9	Do Search	S	Demonstrate a rescue of a firefighter with a functioning SCBA.	
5.3.9	Do Search	S	Demonstrate a rescue of a firefighter with a non-functioning SCBA.	
5.3.9	Do Search	S	Demonstrate a rescue of a victim with no respiratory protection.	
5.3.9	Do Search	S	Demonstrate the proper techniques for assessing the tenability of a given area.	

## Fire Fighter I 5.3.10: Fire Ground Operations

Attack an interior structure fire operating as a member of a team, given an attack line, ladders when needed, personal protective equipment, tools, and an assignment, so that team integrity is maintained, the attack line is deployed for advancement, ladders are correctly placed when used, access is gained into the fire area, effective water application practices are used, the fire is approached correctly, attack techniques facilitate suppression given the level of the fire, hidden fires are located and controlled, the correct body posture is maintained, hazards are recognized and managed, and the fire is brought under control.

**General Knowledge Requirements:** Principles of fire streams; types, design, operation, nozzle pressure effects, and flow capabilities of nozzles; precautions to be followed when advancing hose lines to a fire; observable results that a fire stream has been properly applied; dangerous building conditions created by fire; principles of exposure protection; potential long-term consequences of exposure to products of combustion; physical states of matter in which fuels are found; common types of accidents or injuries and their causes; and the application of each size and type of attack line, the role of the backup team in fire attack situations, attack and control techniques for grade level and above and below grade levels, and exposing hidden fires.

**General Skills Requirements:** The ability to prevent water hammers when shutting down nozzles; open, close, and adjust nozzle flow and patterns; apply water using direct, indirect, and combination attacks; advance charged and uncharged 38 mm (1½ in.) diameter or larger hose lines up ladders and up and down interior and exterior stairways; extend hose lines; replace burst hose sections; operate charged hose lines of 38 mm (1½ in.) diameter or larger while secured to a ground ladder; couple and uncouple various handline connections; carry hose; attack fires at grade level and above and below grade levels; and locate and suppress interior wall and subfloor fires.

### Objectives

NFPA	Topic	K/S	Objective	Date
5.3.10	Interior Attack	K	List the various types of fire streams used for an interior fire attack.	
5.3.10	Interior Attack	K	Describe the design, operation, nozzle pressure effects, and flow capabilities of various types of fog nozzles.	
5.3.10	Interior Attack	K	Describe the design, operation, nozzle pressure effects, and flow capabilities of various types of smooth bore nozzles.	
5.3.10	Interior Attack	K	Describe the design, operation, nozzle pressure effects, and flow capabilities of various types of specialty nozzles.	
5.3.10	Interior Attack	K	List and describe the precautions to be followed when advancing hose lines to a fire.	
5.3.10	Interior Attack	K	Describe the observable results of a properly applied fire stream.	
5.3.10	Interior Attack	K	Describe various dangerous building conditions created as the result of a fire.	
5.3.10	Interior Attack	K	Describe the basic principles of exposure protection.	
5.3.10	Interior Attack	K	List and describe the potential long-term consequences of exposure to products of combustion for a firefighter.	
5.3.10	Interior Attack	K	List and describe the physical states of matter in which fuels are found.	
5.3.10	Interior Attack	K	Describe common types of accidents or injuries and their causes that may occur on the fireground.	
5.3.10	Interior Attack	K	Describe the proper placement and application of a small diameter (1 1/2" to 2") attack line.	
5.3.10	Interior Attack	K	Describe the proper placement application of a medium diameter (2 1/2") attack line.	
5.3.10	Interior Attack	K	Describe the role of a backup team during an interior fire attack.	
5.3.10	Interior Attack	K	Describe the proper fire attack methods for a grade level fire.	

5.3.10	Interior Attack	K	Describe the proper fire attack methods for an above grade level fire.	
5.3.10	Interior Attack	K	Describe the proper fire attack methods for a below grade level fire.	
5.3.10	Interior Attack	K	Describe the proper methods for locating and exposing hidden fires.	
5.3.10	Interior Attack	S	Demonstrate the proper methods to prevent water hammer when shutting down nozzles.	
5.3.10	Interior Attack	S	Demonstrate the ability to properly open, close and adjust nozzle flow and patterns on various automatic and adjustable fog nozzles.	
5.3.10	Interior Attack	S	Demonstrate the ability to properly open and close various smooth bore nozzles.	
5.3.10	Interior Attack	S	Demonstrate the proper procedures for applying water using a direct fire attack.	
5.3.10	Interior Attack	S	Demonstrate the proper procedures for applying water using an indirect fire attack.	
5.3.10	Interior Attack	S	Demonstrate the proper procedures for applying water using a combination fire attack.	
5.3.10	Interior Attack	S	Demonstrate the proper procedure for advancing a 1 1/2" or larger diameter hose up ladders.	
5.3.10	Interior Attack	S	Demonstrate the proper procedure for advancing a 1 1/2" or larger diameter hose up stairways.	
5.3.10	Interior Attack	S	Demonstrate the proper procedure for advancing a 1 1/2" or larger diameter hose down stairways.	
5.3.10	Interior Attack	S	Demonstrate the proper methods for extending hose lines.	
5.3.10	Interior Attack	S	Demonstrate the proper methods for replacing burst or broken sections of hose.	
5.3.10	Interior Attack	S	Operate charged hose line of 1 1/2" diameter or larger hose line while secured to a ground ladder.	
5.3.10	Interior Attack	S	Demonstrate the proper methods for coupling and uncoupling various size hose connections.	
5.3.10	Interior Attack	S	Demonstrate the proper fire attack methods for a grade level fire.	
5.3.10	Interior Attack	S	Demonstrate the proper fire attack methods for an above grade level fire.	
5.3.10	Interior Attack	S	Demonstrate the proper fire attack methods for a below grade level fire.	
5.3.10	Interior Attack	S	Locate and suppress interior wall fires.	

## Fire Fighter I 5.3.11: Fire Ground Operations

Perform horizontal ventilation on a structure operating as part of a team, given an assignment, personal protective equipment, ventilation tools, equipment, and ladders, so that the ventilation openings are free of obstructions, tools are used as designed, ladders are correctly placed, ventilation devices are correctly placed, and the structure is cleared of smoke.

**General Knowledge Requirements:** The principles, advantages, limitations, and effects of horizontal, mechanical, and hydraulic ventilation; safety considerations when venting a structure; fire behavior in a structure; the products of combustion found in a structure fire; the signs, causes, effects, and prevention of backdrafts; and the relationship of oxygen concentration to life safety and fire growth.

**General Skills Requirements:** The ability to transport and operate ventilation tools and equipment and ladders, and to use safe procedures for breaking window and door glass and removing obstructions.

### Objectives

NFPA	Topic	K/S	Objective	Date
5.3.11	Horizontal Ventilation	K	List and describe the principles, advantages, limitations and effects of horizontal ventilation.	
5.3.11	Horizontal Ventilation	K	List and describe the principles, advantages, limitations and effects of mechanical ventilation.	
5.3.11	Horizontal Ventilation	K	List and describe the principles, advantages, limitations and effects of hydraulic ventilation.	
5.3.11	Horizontal Ventilation	K	List and describe the safety considerations when venting a structure.	
5.3.11	Horizontal Ventilation	K	Describe the behavior of fire as it relates to venting in a structure.	
5.3.11	Horizontal Ventilation	K	List and explain the products of combustion found in a structure fire.	
5.3.11	Horizontal Ventilation	K	List and explain the signs and cause of a backdraft.	
5.3.11	Horizontal Ventilation	K	List and explain the effects of a backdraft.	
5.3.11	Horizontal Ventilation	K	Describe the methods to prevent a backdraft.	
5.3.11	Horizontal Ventilation	K	Explain the relationship of oxygen concentration to life safety.	
5.3.11	Horizontal Ventilation	K	Explain the relationship of oxygen concentration to fire growth.	
5.3.11	Horizontal Ventilation	S	Demonstrate the ability to properly carry and place a ladder to the structure for ventilation.	
5.3.11	Horizontal Ventilation	S	Demonstrate the ability to properly carry various ventilation tools and equipment to the location where they will be used.	
5.3.11	Horizontal Ventilation	S	Demonstrate the proper procedure for safely breaking glass in a window or door and remove all obstructions.	

## Fire Fighter I 5.3.12: Fire Ground Operations

Perform vertical ventilation on a structure as part of a team, given an assignment, personal protective equipment, ground and roof ladders, and tools, so that ladders are positioned for ventilation, a specified opening is created, all ventilation barriers are removed, structural integrity is not compromised, products of combustion are released from the structure, and the team retreats from the area when ventilation is accomplished.

**General Knowledge Requirements:** The methods of heat transfer; the principles of thermal layering within a structure on fire; the techniques and safety precautions for venting flat roofs, pitched roofs, and basements; basic indicators of potential collapse or roof failure; the effects of construction type and elapsed time under fire conditions on structural integrity; and the advantages and disadvantages of vertical and trench/strip ventilation.

**General Skills Requirements:** The ability to transport and operate ventilation tools and equipment; hoist ventilation tools to a roof; cut roofing and flooring materials to vent flat roofs, pitched roofs, and basements; sound a roof for integrity; clear an opening with hand tools; select, carry, deploy, and secure ground ladders for ventilation activities; deploy roof ladders on pitched roofs while secured to a ground ladder; and carry ventilation-related tools and equipment while ascending and descending ladders.

### Objectives

NFPA	Topic	K/S	Objective	Date
5.3.12	Vertical Ventilation	K	Discuss the methods of heat transfer	
5.3.12	Vertical Ventilation	K	Describe the principles of thermal layering within the structure on fire	
5.3.12	Vertical Ventilation	K	Discuss the techniques and safety precautions for venting flat roofs, pitched roof, and basement	
5.3.12	Vertical Ventilation	K	Explain the basic indicators of potential collapse or roof failure	
5.3.12	Vertical Ventilation	K	Describe the effects of construction type and elapsed time under fire conditions on structural integrity	
5.3.12	Vertical Ventilation	K	Discuss the advantages and disadvantages of vertical and trench/strip ventilation	
5.3.12	Vertical Ventilation	S	Demonstrate the ability to transport and operate ventilation tools and equipment	
5.3.12	Vertical Ventilation	S	Demonstrate the ability to hoist ventilation tools to a roof	
5.3.12	Vertical Ventilation	S	Perform the ability to cut roofing and flooring materials to vent flat roofs, pitched roof, and basements	
5.3.12	Vertical Ventilation	S	Demonstrate the ability to sound a roof for integrity	
5.3.12	Vertical Ventilation	S	Demonstrate the ability to clear an opening with hand tools	
5.3.12	Vertical Ventilation	S	Perform the ability to select, carry, deploy, and secure ground ladders for ventilation activities	
5.3.12	Vertical Ventilation	S	Demonstrate the deployment of a roof ladder on a pitched roof while secured to a ground ladder	
5.3.12	Vertical Ventilation	S	Perform a carry of ventilation-related tools and equipment while ascending and descending ladders.	

**Fire Fighter I 5.3.13: Fire Ground Operations**

Overhaul a fire scene, given personal protective equipment, attack line, hand tools, a flashlight, and an assignment, so that structural integrity is not compromised, all hidden fires are discovered, fire cause evidence is preserved, and the fire is extinguished.

**General Knowledge Requirements:** Types of fire attack lines and water application devices most effective for overhaul, water application methods for extinguishment that limit water damage, types of tools and methods used to expose hidden fire, dangers associated with overhaul, obvious signs of area of origin or signs of arson, and reasons for protection of fire scene.

**General Skills Requirements:** The ability to deploy and operate an attack line; remove flooring, ceiling, and wall components to expose void spaces without compromising structural integrity; apply water for maximum effectiveness; expose and extinguish hidden fires in walls, ceilings, and subfloor spaces; recognize and preserve obvious signs of area of origin and arson; and evaluate for complete extinguishment.

**Objectives**

NFPA	Topic	K/S	Objective	Date
5.3.13	Overhaul	K	List the types of fire attack lines and water application devices most effective for overhaul.	
5.3.13	Overhaul	K	Describe the water application methods for extinguishment that will limit water damage.	
5.3.13	Overhaul	K	List the types of tools and methods used to expose hidden fires.	
5.3.13	Overhaul	K	Discuss the dangers associated with overhaul.	
5.3.13	Overhaul	K	List the obvious signs of the area of origin, signs of arson, and reasons for protecting evidence.	
5.3.13	Overhaul	S	Demonstrate the ability to deploy and operate an attack lines during overhaul.	
5.3.13	Overhaul	S	Demonstrate the steps for removing flooring, ceiling, and wall material to expose void spaces without compromising structural integrity.	
5.3.13	Overhaul	S	Perform water application for maximum effectiveness during overhaul.	
5.3.13	Overhaul	S	Demonstrate the steps for exposing and extinguishing hidden fires in walls, ceilings, and sub-floor spaces.	
5.3.13	Overhaul	S	Demonstrate how to preserve evidence, detect area of origin and evaluate for complete extinguishment.	

**Fire Fighter I 5.3.14: Fire Ground Operations**

Conserve property as a member of a team, given salvage tools and equipment and an assignment, so that the building and its contents are protected from further damage.

**General Knowledge Requirements:** The purpose of property conservation and its value to the public, methods used to protect property, types of and uses for salvage covers, operations at properties protected with automatic sprinklers, how to stop the flow of water from an automatic sprinkler head, identification of the main control valve on an automatic sprinkler system, and forcible entry issues related to salvage.

**General Skills Requirements:** The ability to cluster furniture; deploy covering materials; roll and fold salvage covers for reuse; construct water chutes and catch-alls; remove water; cover building openings, including doors, windows, floor openings, and roof openings; separate, remove, and relocate charred material to a safe location while protecting the area of origin for cause determination; stop the flow of water from a sprinkler with sprinkler wedges or stoppers; and operate a main control valve on an automatic sprinkler system.

## Objectives

NFPA	Topic	K/S	Objective	Date
5.3.14	Salvage	K	Discuss the purpose of property conservation and its value to the public.	
5.3.14	Salvage	K	Describe the methods used to protect property.	
5.3.14	Salvage	K	List the types of and uses for salvage covers.	
5.3.14	Salvage	K	Discuss the operations at properties protected with automatic sprinklers.	
5.3.14	Salvage	K	Describe how to stop the flow of water from an automatic sprinkler head.	
5.3.14	Salvage	K	Discuss the identification of main control valves on an automatic sprinkler system.	
5.3.14	Salvage	K	Discuss forcible entry issues related to salvage.	
5.3.14	Salvage	S	Demonstrate the ability to cluster furniture.	
5.3.14	Salvage	S	Demonstrate how to deploy covering materials.	
5.3.14	Salvage	S	Demonstrate how to roll and fold salvage covers for reuse.	
5.3.14	Salvage	S	Demonstrate how to construct water chutes and catch-alls.	
5.3.14	Salvage	S	Demonstrate the procedures for removing water.	
5.3.14	Salvage	S	Demonstrate how to cover building openings, including doors, windows, floor openings and roof openings.	
5.3.14	Salvage	S	Perform the steps to separate, remove, and relocate charred material to a safe location.	
5.3.14	Salvage	S	Demonstrate how to stop the flow of water from a sprinkler head with sprinkler wedges or stoppers.	
5.3.14	Salvage	S	Operate a main control valve on an automatic sprinkler system.	

### Fire Fighter I 5.3.15: Fire Ground Operations

Connect a fire department pumper to a water supply as a member of a team, given supply or intake hose, hose tools, and a fire hydrant or static water source, so that connections are tight and water flow is unobstructed.

**General Knowledge Requirements:** Loading and off-loading procedures for mobile water supply apparatus; fire hydrant operation; and suitable static water supply sources, procedures, and protocol for connecting to various water sources.

**General Skills Requirements:** The ability to hand lay a supply hose, connect and place hard suction hose for drafting operations, deploy portable water tanks as well as the equipment necessary to transfer water between and draft from them, make hydrant-to-pumper hose connections for forward and reverse lays, connect supply hose to a hydrant, and fully open and close the hydrant.

### Objectives

NFPA	Topic	K/S	Objective	Date
5.3.15	Water Supply	K	Discuss loading and off-loading procedures for mobile water supply apparatus.	
5.3.15	Water Supply	K	Describe fire hydrant operations.	
5.3.15	Water Supply	K	Discuss procedures and protocol for connecting to suitable static water supply sources.	
5.3.15	Water Supply	K	Perform the ability to hand lay a supply hose.L	
5.3.15	Water Supply	K	Demonstrate how to connect and place hard suction hose for drafting operations.	
5.3.15	Water Supply	K	Operate the deployment of portable water tanks as well as the equipment necessary to transfer water between and draft from them.	
5.3.15	Water Supply	K	Perform hydrant-to-pumper hose connections for forward and reverse lays.	
5.3.15	Water Supply	S	Connect supply hose to a hydrant and fully open and close the hydrant.	

### Fire Fighter I 5.3.16: Fire Ground Operations

Extinguish incipient Class A, Class B, and Class C fires, given a selection of portable fire extinguishers, so that the correct extinguisher is chosen, the fire is completely extinguished, and correct extinguisher-handling techniques are followed.

**General Knowledge Requirements:** The classifications of fire; the types of, rating systems for, and risks associated with each class of fire; and the operating methods of and limitations of portable extinguishers.

**General Skills Requirements:** The ability to operate portable fire extinguishers, approach fire with portable fire extinguishers, select an appropriate extinguisher based on the size and type of fire, and safely carry portable fire extinguishers.

### Objectives

NFPA	Topic	K/S	Objective	Date
5.3.16	Extinguishers	K	List the different classifications of fire.	
5.3.16	Extinguishers	K	List the types of rating system for each classification of fire.	
5.3.16	Extinguishers	K	List the risks associated with each classification of fire.	
5.3.16	Extinguishers	K	Describe the operating methods of a portable extinguisher.	
5.3.16	Extinguishers	K	Describe the limitations of a portable extinguisher.	
5.3.16	Extinguishers	S	Demonstrate the ability to operate a portable extinguisher.	
5.3.16	Extinguishers	S	Demonstrate how to approach fire with a portable extinguisher.	
5.3.16	Extinguishers	S	Demonstrate how to select an appropriate extinguisher based on the size and type of fire.	
5.3.16	Extinguishers	S	Demonstrate how to safely carry a portable extinguisher.	

**Fire Fighter I 5.3.17: Fire Ground Operations**

Illuminate the emergency scene, given fire service electrical equipment and an assignment, so that designated areas are illuminated and all equipment is operated within the manufacturer's listed safety precautions.

**General Knowledge Requirements:** Safety principles and practices, power supply capacity and limitations, and light deployment methods.

**General Skills Requirements:** The ability to operate department power supply and lighting equipment, deploy cords and connectors, reset ground-fault interrupter (GFI) devices, and locate lights for best effect.

**Objectives**

NFPA	Topic	K/S	Objective	Date
5.3.17	Light Scene	K	Discuss the safety principles and practices for using lighting equipment.	
5.3.17	Light Scene	K	Describe power supply capabilities and limitations.	
5.3.17	Light Scene	K	List the methods of light deployment.	
5.3.17	Light Scene	S	Demonstrate the ability to operate department power supply units (i.e. generators, PTO, etc).	
5.3.17	Light Scene	S	Demonstrate the ability to operate lighting equipment (i.e. tripods, masts, etc.).	
5.3.17	Light Scene	S	Demonstrate how to select and setup cords and connectors.	
5.3.17	Light Scene	S	Demonstrate how to reset ground fault interrupter (GFI) devices and apparatus breakers.	
5.3.17	Light Scene	S	Demonstrate how to position lighting for optimal safety and effect.	

**Fire Fighter I 5.3.18: Fire Ground Operations**

Turn off building utilities, given tools and an assignment, so that the assignment is safely completed.

**General Knowledge Requirements:** Properties, principles, and safety concerns for electricity, gas, and water systems; utility disconnect methods and associated dangers; and use of required safety equipment.

**General Skills Requirements:** The ability to identify utility control devices, operate control valves or switches, and assess for related hazards.

**Objectives**

NFPA	Topic	K/S	Objective	Date
5.3.18	Scene Safety	K	List the properties and principles for utilities likely encountered(i.e. electricity, gas, water, hydraulic or pneumatic systems).	
5.3.18	Scene Safety	K	List the safety concerns for utilities likely encountered (i.e. electricity, gas, water, hydraulic or pneumatic systems).	
5.3.18	Scene Safety	K	List the methods for rendering utilities likely encountered safe (i.e. shutoff, disconnection, lockout etc.).	
5.3.18	Scene Safety	K	Describe the associated dangers related to rendering utilities safe.	
5.3.18	Scene Safety	K	Describe the use of required safety equipment in rendering utilities safe.	
5.3.18	Scene Safety	S	Demonstrate the ability to identify utility control devices.	
5.3.18	Scene Safety	S	Demonstrate the ability to operate utility related control valves or switches.	
5.3.18	Scene Safety	S	Demonstrate the ability to perform an assessment for utility related hazards.	

**Fire Fighter I 5.3.19: Fire Ground Operations**

Combat a ground cover fire operating as a member of a team, given protective clothing, SCBA if needed, hose lines, extinguishers or hand tools, and an assignment, so that threats to property are reported, threats to personal safety are recognized, retreat is quickly accomplished when warranted, and the assignment is completed.

**General Knowledge Requirements:** Types of ground cover fires, parts of ground cover fires, methods to contain or suppress, and safety principles and practices.

**General Skills Requirements:** The ability to determine exposure threats based on fire spread potential, protect exposures, construct a fire line or extinguish with hand tools, maintain integrity of established fire lines, and suppress ground cover fires using water.

**Objectives**

<b>NFPA</b>	<b>Topic</b>	<b>K/S</b>	<b>Objective</b>	<b>Date</b>
5.3.19	Ground Fire	K	List the fuel classifications as they relate to wildland fires.	
5.3.19	Ground Fire	K	List the parts of a wildland fire.	
5.3.19	Ground Fire	K	Discuss the methods used to approach and attack wildland fires for containment or suppression.	
5.3.19	Ground Fire	K	Discuss the safety principles and practices commonly used for wildland fire containment and suppression.	
5.3.19	Ground Fire	S	Demonstrate the steps to determine exposure threats based on wildland fire spread.	
5.3.19	Ground Fire	S	Demonstrate the how exposures are protected from spreading wildland fires.	
5.3.19	Ground Fire	S	Demonstrate the steps to on how to construct a fire line.	
5.3.19	Ground Fire	S	Demonstrate the steps to extinguish a wildland fire using hand tools.	
5.3.19	Ground Fire	S	Demonstrate the steps needed to maintain the integrity of established fire lines against a spreading wildland fire.	
5.3.19	Ground Fire	S	Demonstrate the steps to suppress a contained wildland fire with water.	

**Fire Fighter I 5.5.1: Prevention, Preparedness, and Maintenance**

Clean and check ladders, ventilation equipment, SCBA, ropes, salvage equipment, and hand tools, given cleaning tools, cleaning supplies, and an assignment, so that equipment is clean and maintained according to manufacturer's or departmental guidelines, maintenance is recorded, and equipment is placed in a ready state or reported otherwise.

**General Knowledge Requirements:** Types of cleaning methods for various tools and equipment, correct use of cleaning solvents, and manufacturer's or departmental guidelines for cleaning equipment and tools.

**General Skills Requirements:** The ability to select correct tools for various parts and pieces of equipment, follow guidelines, and complete recording and reporting procedures.

**Objectives**

<b>NFPA</b>	<b>Topic</b>	<b>K/S</b>	<b>Objective</b>	<b>Date</b>
5.5.1	Clean/Check Equipment	K	Describe the process for cleaning, inspection, maintenance, and recording keeping for ladders following manufacturer's or department guidelines.	
5.5.1	Clean/Check Equipment	K	Describe the process for cleaning, inspection, maintenance, and recording keeping for ventilation equipment following manufacturer's or department guidelines.	
5.5.1	Clean/Check Equipment	K	Describe the process for cleaning, inspection, maintenance, and recording keeping for SCBA following manufacturer's or department guidelines.	
5.5.1	Clean/Check Equipment	K	Describe the process for cleaning, inspection, maintenance, and recording keeping for ropes following manufacturer's or department guidelines.	
5.5.1	Clean/Check Equipment	K	Describe the process for cleaning, inspection, maintenance, and recording keeping for salvage equipment following manufacturer's or department's guidelines.	
5.5.1	Clean/Check Equipment	K	Describe the process for cleaning, inspection, maintenance, and recording keeping for hand tools following manufacturer's or department guidelines.	
5.5.1	Clean/Check Equipment	S	Demonstrate cleaning, inspection, basic maintenance, and record keeping for ladders in accordance to manufacture's or department guidelines.	
5.5.1	Clean/Check Equipment	S	Demonstrate cleaning, inspection, basic maintenance, and record keeping for ventilation equipment in accordance to manufacture's or department guidelines.	
5.5.1	Clean/Check Equipment	S	Demonstrate cleaning, inspection, basic maintenance, and record keeping for SCBA in accordance to manufacture's or department guidelines.	
5.5.1	Clean/Check Equipment	S	Demonstrate cleaning, inspection, basic maintenance, and record keeping for ropes in accordance to manufacture's or department guidelines.	
5.5.1	Clean/Check Equipment	S	Demonstrate cleaning, inspection, basic maintenance, and record keeping for salvage equipment in accordance to manufacture's or department guidelines.	
5.5.1	Clean/Check Equipment	S	Demonstrate cleaning, inspection, basic maintenance, and record keeping for hand tools in accordance to manufacture's or department guidelines.	

**Fire Fighter I 5.5.2: Prevention, Preparedness, and Maintenance**

Clean, inspect, and return fire hose to service, given washing equipment, water, detergent, tools, and replacement gaskets, so that damage is noted and corrected, the hose is clean, and the equipment is placed in a ready state for service.

**General Knowledge Requirements:** Departmental procedures for noting a defective hose and removing it from service, cleaning methods, and hose rolls and loads.

**General Skills Requirements:** The ability to clean different types of hose, operate hose washing and drying equipment, mark defective hose, and replace coupling gaskets, roll hose, and reload hose.

**Objectives**

<b>NFPA</b>	<b>Topic</b>	<b>K/S</b>	<b>Objective</b>	<b>Date</b>
5.5.2	Clean Hose	K	Describe the process for cleaning, inspection, maintenance, placing hose in/out of service, and recording keeping for fire hose in accordance to manufacture's or department guidelines.	
5.5.2	Clean Hose	K	List and describe common hose rolls and hose loads.	
5.5.2	Clean Hose	S	Demonstrate cleaning, inspection, marking defects, and maintenance of couplings and gaskets on different types of fire hose.	
5.5.2	Clean Hose	S	Operate hose washing and drying equipment.	
5.5.2	Clean Hose	S	Perform hose loads and rolls.	

**Fire Fighter I 4.2.1: General**

Perform routine tests, inspections, and servicing functions on the systems and components specified in the following list, given a fire department vehicle, its manufacturer’s specifications, and policies and procedures of the jurisdiction, so that the operational status of the vehicle is verified:

- (1) Battery(ies)
- (2) Braking system
- (3) Coolant system
- (4) Electrical system
- (5) Fuel
- (6) Hydraulic fluids
- (7) Oil
- (8) Tires
- (9) Steering system
- (10) Belts
- (11) Tools, appliances, and equipment

**General Knowledge Requirements:** Manufacturer specifications and requirements, policies, and procedures of the jurisdiction.

**General Skills Requirements:** The ability to use hand tools, recognize system problems, and correct any deficiency noted according to policies and procedures.

**Objectives**

NFPA	Topic	K/S	Objective	Date
4.2.1	Preventive Maintenance	K	List routine tests, inspection, and servicing functions performed on the system and components specified in the following list, given a fire department vehicle and its manufacturer’s specifications, so the operational status is verified.	
4.2.1	Preventive Maintenance	S	Demonstrate the ability to use hand tools.	
4.2.1	Preventive Maintenance	S	Demonstrate the ability to recognize system problems.	
4.2.1	Preventive Maintenance	S	Demonstrate the ability to document any deficiency noted according to policies and procedures.	
4.2.1	Preventive Maintenance	S	Document routine tests, inspection, and servicing functions given maintenance and section forms, so that all items are checked for operation and deficiencies are reported.	
4.2.1	Preventive Maintenance	S	Discuss requirements for documenting maintenance performed and the importance of keeping accurate records.	
4.2.1	Preventive Maintenance	S	Demonstrate the ability to use tools and equipment and complete all related departmental forms.	

**Fire Fighter I 4.2.2: Preventive Maintenance**

Document the routine tests, inspections, and servicing functions, given maintenance and inspection forms, so that all items are checked for operation and deficiencies are reported.

**General Knowledge Requirements:** Departmental requirements for documenting maintenance performed and the importance of keeping accurate records.

**General Skills Requirements:** The ability to use tools and equipment and complete all related departmental forms.

**Objectives**

NFPA	Topic	K/S	Objective	Date
4.2.2	Preventive Maintenance	K	Discuss requirements for documenting maintenance performed and the importance of keeping accurate records.	
4.2.2	Preventive Maintenance	S	Demonstrate the ability to use tools and equipment and complete all related departmental forms.	

**Fire Fighter I 4.3.1: Driving/Operation**

Operate a fire department vehicle, given a vehicle and a predetermined route on a public way that incorporates the maneuvers and features, specified in the following list, that the driver/operator is expected to encounter during normal operations, so that the vehicle is operated in compliance with all applicable state and local laws, departmental rules and regulations, and the requirements of NFPA 1500, Section 4.2:

- (1) Four left turns and four right turns
- (2) A straight section of urban business street or a two-lane rural road at least 1.6 km (1 mile) in length
- (3) One through-intersection and two intersections where a stop has to be made
- (4) One railroad crossing
- (5) One curve, either left or right
- (6) A section of limited-access highway that includes a conventional ramp entrance and exit and a section of road long enough to allow two lane changes
- (7) A downgrade steep enough and long enough to require down-shifting and braking
- (8) An upgrade steep enough and long enough to require gear changing to maintain speed
- (9) One underpass or a low clearance or bridge.

**General Knowledge Requirements:** The effects on vehicle control of liquid surge, braking reaction time, and load factors; effects of high center of gravity on roll-over potential, general steering reactions, speed, and centrifugal force; applicable laws and regulations; principles of skid avoidance, night driving, shifting, and gear patterns; negotiating intersections, railroad crossings, and bridges; weight and height limitations for both roads and bridges; identification and operation of automotive gauges; and operational limits.

**General Skills Requirements:** The ability to operate passenger restraint devices; maintain safe following distances; maintain control of the vehicle while accelerating, decelerating, and turning, given road, weather, and traffic conditions; operate under adverse environmental or driving surface conditions; and use automotive gauges and controls.

**Objectives**

NFPA	Topic	K/S	Objective	Date
4.3.1	Driving/Operation	K	Describe the effects on vehicle control of liquid surge, braking reaction time, and load factors; effects of high center of gravity on roll-over potential, general steering reactions, speed, and centrifugal force; applicable laws and regulations; principles of skid avoidance, night driving, shifting, and gear patterns; negotiating intersections, railroad crossings, and bridges; weight and height limitations for both roads and bridges; identification and operation of automotive gauges; and operational limits.	
4.3.1	Driving/Operation	S	Demonstrate the operation of a fire department vehicle, given a vehicle and a predetermined route on a public way that incorporates the maneuvers and features, specified in the following list, that the driver/operator is expected to encounter during normal operations, so that the vehicle is operated in compliance with all applicable state laws, local laws, and departmental rules and regulations.	
4.3.1	Driving/Operation	S	Demonstrate the ability to operate passenger restraint devices; maintain safe following distances; maintain control of the vehicle while accelerating, decelerating, and turning, given road, weather, and traffic conditions; operate under adverse environmental or driving surface conditions; and use automotive gauges and controls.	

**Fire Fighter I 4.3.2: Driving/Operation**

Back a vehicle from a roadway into restricted spaces on both the right and left sides of the vehicle, given a fire department vehicle, a spotter, and restricted spaces 3.7 m (12 ft) in width, requiring 90-degree right-hand and left-hand turns from the roadway, so that the vehicle is parked within the restricted areas without having to stop and pull forward and without striking obstructions.

**General Knowledge Requirements:** Vehicle dimensions, turning characteristics, spotter signaling, and principles of safe vehicle operation.

**General Skills Requirements:** The ability to use mirrors and judge vehicle clearance.

**Objectives**

NFPA	Topic	K/S	Objective	Date
4.3.2	Driving/Operation	K	Discuss the vehicle dimensions, turning characteristics, spotter signaling, and principles of safe vehicle operation.	
4.3.2	Driving/Operation	S	Perform the ability to use mirrors and judge vehicle clearance. Back a vehicle from a roadway into restricted spaces on both the right and left sides of the vehicle, given a fire department vehicle, a spotter, and restricted spaces 3.7 m (12 ft) in width, requiring 90-degree right-hand and left-hand turns from the roadway, so that the vehicle is parked within the restricted areas without having to stop and pull forward and without striking obstructions.	
4.3.2	Driving/Operation	S	Demonstrate the ability to use mirrors and judge vehicle clearance.	

**Fire Fighter I 4.3.3: Driving/Operation**

Maneuver a vehicle around obstructions on a roadway while moving forward and in reverse, given a fire department vehicle, a spotter for backing, and a roadway with obstructions, so that the vehicle is maneuvered through the obstructions without stopping to change the direction of travel and without striking the obstructions.

**General Knowledge Requirements:** Vehicle dimensions, turning characteristics, the effects of liquid surge, spotter signaling, and principles of safe vehicle operation.

**General Skills Requirements:** The ability to use mirrors and judge vehicle clearance.

**Objectives**

NFPA	Topic	K/S	Objective	Date
4.3.3	Driving/Operation	K	Discuss the vehicle dimensions, turning characteristics, spotter signaling, and principles of safe vehicle operation.	
4.3.3	Driving/Operation	S	Perform the ability to use mirrors and judge vehicle clearance. Back a vehicle from a roadway into restricted spaces on both the right and left sides of the vehicle, given a fire department vehicle, a spotter, and restricted spaces 3.7 m (12 ft) in width, requiring 90-degree right-hand and left-hand turns from the roadway, so that the vehicle is parked within the restricted areas without having to stop and pull forward and without striking obstructions.	
4.3.3	Driving/Operation	S	Demonstrate the ability to use mirrors and judge vehicle clearance.	

**Fire Fighter I 4.3.4: Driving/Operation**

Turn a fire department vehicle 180 degrees within a confined space, given a fire department vehicle, a spotter for backing up, and an area in which the vehicle cannot perform a U-turn without stopping and backing up, so that the vehicle is turned 180 degrees without striking obstructions within the given space.

**General Knowledge Requirements:** Vehicle dimensions, turning characteristics, the effects of liquid surge, spotter signaling, and principles of safe vehicle operation.

**General Skills Requirements:** The ability to use mirrors and judge vehicle clearance.

**Objectives**

NFPA	Topic	K/S	Objective	Date
4.3.4	Driving/Operation	K	Explain the vehicle dimensions, turning characteristics, the effects of liquid surge, spotter signaling, and principles of safe vehicle operation.	
4.3.4	Driving/Operation	S	Demonstrate the ability to maneuver a vehicle around obstructions on a roadway while moving forward and in reverse, given a fire department vehicle, a spotter for backing, and a roadway with obstructions, so that the vehicle is maneuvered through the obstructions without stopping to change the direction of travel and without striking the obstructions.	
4.3.4	Driving/Operation	S	Demonstrate the capability to use mirrors and judge vehicle clearance.	

**Fire Fighter I 4.3.5: Driving/Operation**

Maneuver a fire department vehicle in areas with restricted horizontal and vertical clearances, given a fire department vehicle and a course that requires the operator to move through areas of restricted horizontal and vertical clearances, so that the operator accurately judges the ability of the vehicle to pass through the openings and so that no obstructions are struck.

**General Knowledge Requirements:** Vehicle dimensions, turning characteristics, the effects of liquid surge, spotter signaling, and principles of safe vehicle operation.

**General Skills Requirements:** The ability to use mirrors and judge vehicle clearance.

**Objectives**

NFPA	Topic	K/S	Objective	Date
4.3.5	Driving/Operation	K	Discuss the vehicle dimensions, turning characteristics, the effects of liquid surge, spotter signaling, and principles of safe vehicle operation.	
4.3.5	Driving/Operation	K	Explain the maneuver a fire department vehicle in areas with restricted horizontal and vertical clearances, given a fire department vehicle and a course that requires the operator to move through areas of restricted horizontal and vertical clearances, so that the operator accurately judges the ability of the vehicle to pass through the openings and so that no obstructions are struck.	
4.3.5	Driving/Operation	S	Perform the ability to use mirrors and judge vehicle clearance.	

**Fire Fighter I 4.3.6: Driving/Operation**

Operate a vehicle using defensive driving techniques under emergency conditions, given a fire department vehicle and emergency conditions, so that control of the vehicle is maintained.

**General Knowledge Requirements:** The effects on vehicle control of liquid surge, braking reaction time, and load factors; the effects of high center of gravity on roll-over potential, general steering reactions, speed, and centrifugal force; applicable laws and regulations; principles of skid avoidance, night driving, shifting, gear patterns; and automatic braking systems in wet and dry conditions; negotiation of intersections, railroad crossings, and bridges; weight and height limitations for both roads and bridges; identification and operation of automotive gauges; and operational limits.

**General Skills Requirements:** The ability to operate passenger restraint devices; maintain safe following distances; maintain control of the vehicle while accelerating, decelerating, and turning, given road, weather, and traffic conditions; operate under adverse environmental or driving surface conditions; and use automotive gauges and controls.

**Objectives**

NFPA	Topic	K/S	Objective	Date
4.3.6	Driving/Operation	K	Explain the effects on vehicle control of liquid surge, braking reaction time, and load factors; the effects of high center of gravity on roll-over potential, general steering reactions, speed, and centrifugal force; applicable laws and regulations; principles of skid avoidance, night driving, shifting, and gear patterns; negotiation of intersections, railroad crossings, and bridges; weight and height limitations for both roads and bridges; identification and operation of automotive gauges; and operational limits.	
4.3.6	Driving/Operation	S	Operate passenger restraint devices; maintain safe following distances; maintain control of the vehicle while accelerating, decelerating, and turning, given road, weather, and traffic conditions; operate under adverse environmental or driving surface conditions; and use automotive gauges and controls.	
4.3.6	Driving/Operation	S	Demonstrate the operation of a vehicle using defensive driving techniques under emergency conditions, given a fire department vehicle and emergency conditions, so that control of the vehicle is maintained.	

**Fire Fighter I 4.3.7: Driving/Operation**

Operate all fixed systems and equipment on the vehicle not specifically addressed elsewhere in this standard, given systems and equipment, manufacturer's specifications and instructions, and departmental policies and procedures for the systems and equipment, so that each system or piece of equipment is operated in accordance with the applicable instructions and policies.

**General Knowledge Requirements:** Manufacturer's specifications and operating procedures, and policies and procedures of the jurisdiction.

**General Skills Requirements:** The ability to deploy, energize, and monitor the system or equipment and to recognize and correct system problems.

**Objectives**

NFPA	Topic	K/S	Objective	Date
4.3.7	Driving/Operation	K	Explain the manufacturer's specifications and operating procedures, and policies and procedures of the jurisdiction.	
4.3.7	Driving/Operation	S	Demonstrate all fixed systems and equipment on the vehicle not specifically addressed elsewhere in this standard, given systems and equipment, manufacturer's specifications and instructions, and departmental policies and procedures for the systems and equipment, so that each system or piece of equipment is operated in accordance with the applicable instructions and policies.	
4.3.7	Driving/Operation	S	Demonstrate the ability to deploy, energize, and monitor the system or equipment and to recognize and correct system problems.	

**Fire Fighter I NFPA 1451 Standard: Driving/Operation**

The purpose of this standard shall be to specify the minimum requirements for a fire service vehicle operations training program, including procedures for those members that drive or occupy fire service vehicles, respond in private vehicles or unconventional means of transportation, and provide traffic control at the scene of an emergency

**Objectives**

NFPA	Topic	K/S	Objective	Date
1451		K	Discuss the fire department's driving training program and the critical aspects of NFPA 1451 Standard for a Fire Service Vehicle Operations Training Program explaining the operating procedures, policies, and procedures of the fire department.	
1451		K	Discuss the fire department's driving training program and the critical aspects of NFPA 1451 Standard for a Fire Service Vehicle Operations Training Program explaining the laws and liabilities, crash and injury prevention, and crash review.	
1451		K	Discuss the fire department's driving training program and the critical aspects of NFPA 1451 Standard for a Fire Service Vehicle Operations Training Program explaining the emergency response in fire apparatus and personal vehicles.	

**Advising Note:** Submitted course work must include proof of Knowledge and Skills Document completion.  
 \*Minimum hours 120 plus 16 for Emergency Vehicle Operation Course are required. The objectives listed above shall be completed by the student, and verified by the program director.

I attest that the fire training objectives listed above have been met and that all information provided is true and accurate to the best of my knowledge. I hereby give permission to the Ohio Department of Public Safety, Division of Emergency Medical Services to verify any of the above information.

STUDENT NAME (PLEASE PRINT)	
SIGNATURE OF STUDENT <b>X</b>	DATE
PROGRAM DIRECTOR NAME (PLEASE PRINT)	
SIGNATURE OF PROGRAM DIRECTOR <b>X</b>	DATE