

# LESSON ONE

## FIREFIGHTER II

### Fire Prevention and Education

**DOMAIN:** COGNITIVE

**LEVEL OF LEARNING:** COMPREHENSION / APPLICATION

#### **MATERIALS**

IFSTA Essentials 5th edition or Jones and Bartlett Fundamentals of Fire Fighter Skills 2<sup>nd</sup> Edition or Delmar Firefighter's Handbook 3<sup>rd</sup> Edition; Writing board; flip chart; overhead or laptop computer and multimedia projector; projection screen.

#### **NFPA 1001 JPR, 2008 edition**

6.5.1 Perform a fire safety survey in a private dwelling

#### **Junior Member Statement:**

Junior Member training activities should be supervised by qualified instructors to assure that the cognitive and psychomotor skills are completed in a safe and non-evasive manner. While it is critical that instructors be constantly aware of the capabilities of all students both mentally and physically to complete certain tasks safely and successfully, the instructor should take every opportunity to discuss with departmental leaders and students the maturity and job awareness each participant has for the hazards associated with fire and rescue training.

## **TERMINAL OBJECTIVE**

The Firefighter II shall correctly identify in writing the components necessary to create a sound community fire prevention program, and identify the hazards that should be addressed.

## **ENABLING OBJECTIVES**

1. The Firefighter II candidate shall correctly define in writing the elements that contribute to a positive, community wide fire prevention program.
2. The Firefighter II candidate shall correctly identify in writing the factors that may contribute to a fire hazard.

# **LESSON ONE**

## **FIREFIGHTER II**

### **Fire Prevention and Education**

#### **MOTIVATION**

Fire prevention must be considered a top priority in the effort to stop the large numbers of deaths attributed to fire in this country every year. Fire strikes at will and has no respect for weakness or ignorance. Developing a proactive fire prevention program in our fire departments is the key to bonding with the community in an effort to reduce fire loss and fire related casualties and death.

#### **PRESENTATION**

##### **ENABLING OBJECTIVE #1**

The Firefighter II candidate shall correctly define, in writing, the elements that contribute to a positive, community wide fire prevention program.

1. Define Fire Safety Surveys.
2. Describe the effects of a fire safety survey for all properties within a community.
  - a) The survey contributes to the development and maintenance of a pre-plan.
  - b) It insures a safe physical environment for the citizens.
3. Discuss how fire incident reports factor into a fire prevention program.
  - a) Provides a documented fire history of the community.
  - b) Allows for comparison of data.
4. Discuss the importance of a fire inspection program.

- a) The program is usually conducted by specially trained inspectors.
- b) Hazards are identified and passed on to the firefighters.
- c) Occupancy owners are made aware of hazards and are given recommendations for repairing the problem.
- d) All personnel participating in an inspection program should meet the requirements of NFPA 1031.
- e) Those developing an inspection program should be familiar with local and state laws pertaining to inspections.

Reference:

Delmar Handbook 3rd edition, pages 755-773

J&B Fundamentals 2<sup>nd</sup> edition, pages 919, 922-928

IFSTA Essentials 5th edition, pages 961-962, 970-971

## **PRESENTATION**

### **ENABLING OBJECTIVE #2**

The Firefighter II candidate shall correctly identify in writing the factors that may contribute to a fire hazard.

1. Define what is a Fire Hazard.
  - a) Any condition that encourages a fire to start or increases the severity and or extension of the fire.
2. Discuss target hazards.
  - a) Common hazards.
  - b) Special Hazards.
3. Identify types of fuel hazards.
  - a) Ordinary combustibles.
  - b) Flammable and combustible gas.
  - c) Flammable and combustible liquids.

- d) Chemicals.
  - e) Dust.
  - f) Metals.
  - g) Plastics.
4. Identify heat source hazards.
- a) Chemical energy.
  - b) Electrical energy.
  - c) Mechanical energy.
  - d) Nuclear energy.

Reference:

Delmar Handbook 3rd edition, pages 89-92, 185, 758-771.  
J&B Fundamentals 2<sup>nd</sup> edition, pages 129-130, 924-925  
IFSTA Essentials 5th edition, pages 962-964

**SUMMARY**

Review the need for a proactive prevention program.

Review the various types of fire hazards.

Be sure to discuss fuel hazards as well as heat sources.

# LESSON TWO

## FIREFIGHTER II

### Fire Prevention and Education

**DOMAIN:** COGNITIVE

**LEVEL OF LEARNING:** COMPREHENSION / APPLICATION

#### **MATERIALS**

IFSTA Essentials 5th edition or Jones and Bartlett Fundamentals of Fire Fighter Skills 2<sup>nd</sup> Edition or Delmar Firefighter's Handbook 3<sup>rd</sup> Edition; writing board; flip chart; overhead or laptop computer and multimedia projector; projection screen.

#### **NFPA 1001 JPR, 2008 edition**

6.5.1 Perform a fire safety survey in a private dwelling

#### **Junior Member Statement:**

Junior Member training activities should be supervised by qualified instructors to assure that the cognitive and psychomotor skills are completed in a safe and non-evasive manner. While it is critical that instructors be constantly aware of the capabilities of all students both mentally and physically to complete certain tasks safely and successfully, the instructor should take every opportunity to discuss with departmental leaders and students the maturity and job awareness each participant has for the hazards associated with fire and rescue training.

## **TERMINAL OBJECTIVE**

The Firefighter II candidate shall correctly define in writing the criteria for conducting an effective fire safety survey.

## **ENABLING OBJECTIVES**

1. The Firefighter II candidate shall correctly explain in writing the importance of fire safety surveys as a tool of pre-incident planning.
2. The Firefighter II candidate shall correctly identify in writing the personal requirements for firefighters who perform inspections.
3. The Firefighter II candidate shall correctly identify in writing the equipment needed to conduct surveys.
4. The Firefighter II candidate shall correctly identify in writing the procedures for scheduling a Fire Safety Survey.

# LESSON TWO

## FIREFIGHTER I

### Fire Prevention and Education

#### MOTIVATION

The most effective way to fight fire is to keep it from starting. An aggressive inspection program along with an effective fire education program will go far in the effort to reduce the loss from fire. An inspection program which is carried out by conscientious, well-trained personnel can promote a positive community interaction, and cultivate a good working relationship with business owners while reducing the risk of loss of lives and property.

#### PRESENTATION

#### ENABLING OBJECTIVE #1

The Firefighter II candidate shall correctly explain in writing the importance of fire safety surveys as a tool of pre-incident planning.

1. Identify the objectives of a pre-incident survey.
  - a) Alert citizens to existing or potential hazards that may exist at the survey site.
  - b) Identifies problems so citizens can address and resolve the problem.
  - c) Gives required up front information to firefighters coming onto the emergency scene.

Reference:

Delmar Handbook 3rd edition, page 756

J&B Fundamentals 2<sup>nd</sup> edition, page 919

IFSTA Essentials 5th edition, pages 970-971

#### PRESENTATION

## ENABLING OBJECTIVE #2

The Firefighter II candidate shall correctly identify in writing the personal requirements for firefighters who perform inspections.

1. Discuss the wide range of interpersonal skills firefighters need to conduct an efficient fire safety survey.
  - a) Communication.
  - b) Mitigation.
  - c) Facilitation.
  - d) Negotiation.
  - e) Mediation.
  
2. Discuss the wide range of technical skills firefighters need to conduct an efficient fire safety survey.
  - a) Building construction.
  - b) Fire and life safety requirements.
  - c) Common and special hazards.
  - d) Building utilities.
  - e) Energy systems.
  - f) Fire protection appliances and systems.
  
3. Discuss personal traits that a firefighter should exhibit when conducting surveys in the community.
  - a) Well-groomed, neat appearance.
  - b) Clean uniform.
  - c) Familiar with life safety standards and requirements.
  - d) Recognize, document and report existing or potential hazards.
  - e) Know ones limitations.
  - f) Offer corrective advise if appropriate.
  - g) Able to communicate effectively with the public.
  - h) Ability to complete appropriate reports.
  - i) Transfer visual finding to drawings or sketches.

Reference:

J&B Fundamentals 2<sup>nd</sup> edition, pages 923-928

IFSTA Essentials 5th edition, pages 966-967

**NOTE: The characteristics listed in #1 and #2 are generic and should apply to whomever conducts the fire safety survey i.e. firefighter, fire marshal or fire inspector.**

## **PRESENTATION**

### **ENABLING OBJECTIVE #3**

The Firefighter II candidate shall correctly identify in writing the equipment needed to conduct surveys.

1. Identify the survey equipment that may be needed on site.
  - a) Coveralls.
  - b) Safety glasses, gloves, hardhat.
  - c) Approved respirator.
  - d) Clipboard, survey forms, engineering paper and Standard plan symbols.
  - e) Pen or pencil.
  - f) 50' tape measure
  - g) Flashlight, camera equipped with flash.
  - h) Pitot tube and gauges.
  
2. Identify the survey equipment that may be needed at the fire station.
  - a) Reference books.
  - b) Survey and report forms.
  - c) Survey file.
  - d) Code and inspection material.
  - e) Adequate records.
  - f) Drawing board.
  - g) Drawing scales, ruler and other appropriate materials.

Reference:

Delmar Handbook 3rd edition, pages 756-757

IFSTA Essentials 5th edition, pages 966-967

## **PRESENTATION**

### **ENABLING OBJECTIVE #4**

The Firefighter II candidate shall correctly identify in writing the procedures for scheduling a Fire Safety Survey.

1. Discuss procedures for setting up a fire safety survey.
  - a) Contact owner.
  - b) Establish a mutually agreeable time to conduct the survey.

- c) Advise the owner of the purpose of the survey.

Reference:

Delmar Handbook 3rd edition, pages 756-757

J&B Fundamentals 2<sup>nd</sup> edition, page 651

IFSTA Essentials 5th edition, pages 968-970

### **APPLICATION**

Divide the class up into equal groups. Have each group list the positive and negative aspects of implementing a fire safety survey program.

### **SUMMARY**

Review the positive aspects of a fire safety survey program.

Review the personal and technical requirements a firefighter should possess to conduct an effective fire safety survey.

Review equipment needs for conducting a fire safety survey.

Review the procedures for scheduling a fire safety survey.

# LESSON THREE

## FIREFIGHTER II

### Fire Prevention and Education

**DOMAIN:** COGNITIVE / PSYCHOMOTOR

**LEVEL OF LEARNING:** COMPREHENSION / APPLICATION

#### **MATERIALS**

IFSTA Essentials 5th edition or Jones and Bartlett Fundamentals of Fire Fighter Skills 2<sup>nd</sup> Edition or Delmar Firefighter's Handbook 3<sup>rd</sup> Edition; writing board; flip chart; overhead or laptop computer and multimedia projector; projection screen.

#### **NFPA 1001 JPR, 2008 edition**

6.5.1 Perform a fire safety survey in a private dwelling

#### **Junior Member Statement:**

Junior Member training activities should be supervised by qualified instructors to assure that the cognitive and psychomotor skills are completed in a safe and non-evasive manner. While it is critical that instructors be constantly aware of the capabilities of all students both mentally and physically to complete certain tasks safely and successfully, the instructor should take every opportunity to discuss with departmental leaders and students the maturity and job awareness each participant has for the hazards associated with fire and rescue training.

## **TERMINAL OBJECTIVE**

The Firefighter II candidate shall correctly identify and explain in writing the components of a home fire safety survey.

## **ENABLING OBJECTIVES**

1. The Firefighter II candidate shall correctly identify in writing the objectives of a residential fire inspection program.
2. The Firefighter II candidate shall correctly identify in writing the firefighter's responsibilities when conducting a residential fire inspection.
3. The Firefighter II candidate shall correctly identify in writing fire / burn hazards that firefighters shall look for when conducting a residential fire inspection.
4. The Firefighter II candidate shall correctly identify in writing items to be examined while conducting an interior fire safety survey.
5. The Firefighter II candidate shall correctly identify in writing fire / burn hazards to look for or to be checked in the basement and attic areas.
6. The Firefighter II candidate shall correctly identify in writing additional home fire safety information which should be provided to the occupants.

# **LESSON THREE**

## **FIREFIGHTER II**

### **Fire Prevention and Education**

#### **MOTIVATION**

Home fire safety surveys or dwelling inspections may be done as part of a fire prevention program or done on a request basis, but it is essential that firefighters know that not only is it an inspection, but also an educational opportunity and advisory service for the occupant as well. The role of the firefighter is to look for hazards, not code violations.

#### **PRESENTATION**

#### **ENABLING OBJECTIVE #1**

The Firefighter II candidate shall correctly identify in writing the objectives of a residential fire inspection program.

1. Identify the significance of a residential fire safety survey.
  - a) The survey makes residents aware of existing or potential hazards found in the residence.
  - b) It is not a code enforcement survey.
  - c) It is designed to motivate the public to help eliminate fire hazards in the home.
2. List the objectives of a home fire inspection program.
  - a) The program helps to prevent accidental fires.
  - b) Improve life safety conditions.
  - c) Helps owner to understand the need for improving existing conditions.
3. Discuss additional benefits to the fire department by performing these surveys.
  - a) The fire department becomes acquainted with home construction.

- b) Occupancy conditions.
- c) Housing development trends.
- d) Street addresses.
- e) Location of hydrants or other water supply sources.

Reference:

Delmar Handbook 3rd edition, pages 775-776

J&B Fundamentals 2<sup>nd</sup> edition, pages 922-928

IFSTA Essentials 5th edition, pages 976-977

## **PRESENTATION**

### **ENABLING OBJECTIVE #2**

The Firefighter II candidate shall correctly identify in writing the firefighter's responsibilities when conducting a home inspection.

1. List the guidelines a firefighter should use when conducting a safety survey at a residence.
  - a) The firefighter should introduce self.
  - b) Provide ID and state purpose of visit.
  - c) Maintain professional attitude.
  - d) Request permission to conduct survey.
  - e) Compliment when positive conditions are found.
  - f) Make constructive suggestions for correcting safety hazards.

Reference:

J&B Fundamentals 2<sup>nd</sup> edition, pages 923-928

IFSTA Essentials 5th edition, page 978

## **PRESENTATION**

### **ENABLING OBJECTIVE #3**

The Firefighter II candidate shall correctly identify in writing items that firefighters should look for when conducting a home inspection.

1. List the signs of the most common causes of fire.
  - a) Heating appliances.
  - b) Cooking procedures.
  - c) Smoking materials.

- d) Electrical distribution.
- e) Electrical appliances.
- f) Combustible or flammable liquids.

Reference:

Delmar Handbook 3rd edition, page 775

J&B Fundamentals 2<sup>nd</sup> edition, pages 924-928

IFSTA Essentials 5th edition, page 978

## **PRESENTATION**

### **ENABLING OBJECTIVE #4**

The Firefighter II candidate shall correctly identify in writing items to be examined while conducting an interior fire safety survey.

1. Identify and discuss procedures for inspecting the items listed below. Discuss what to look for.
  - a) Combustible materials.
  - b) Appliances.
  - c) Electrical wiring and equipment.
  - d) Portable heating units.
  - e) Wood stoves / fireplaces.
  - f) Heating fuel.
  - g) General house keeping practices.
  - h) Smoke detectors.
  - i) Electrical distribution panels.
  - j) Oil burning installations.
  - k) Furnace, hot water heater, vent pipes.
  - l) Work shop areas.
  - m) Accumulated waste.
  - n) Flammable liquids.

Reference:

Delmar Handbook 3rd edition, pages 775-776

J&B Fundamentals 2<sup>nd</sup> edition, pages 924-928

IFSTA Essentials 5th edition, pages 979-982

## **PRESENTATION**

### **ENABLING OBJECTIVE #5**

The Firefighter II candidate shall correctly identify in writing items to be examined while conducting an outside fire safety survey.

1. Identify and discuss procedures for inspecting the items listed below.
  - a) Roof.
  - b) Chimney and spark arrestors.
  - c) Yard and porch areas.
  - d) Barbecue grills and fuel.
  - e) Outside waste burners.
  - f) Garages, sheds, barns and other outbuildings.
  - g) Flammable liquids and gases.
  - h) Lightning protection.
  - i) Security devices.

Reference:

J&B Fundamentals 2<sup>nd</sup> edition, page 928

IFSTA Essentials 5th edition, pages 979-982

## **APPLICATION**

Have each student perform an interior fire safety survey on their residence. Have them get the family involved. Select three or four candidates to share their survey reports. Find out if any problems were discovered and what course of action was taken.

## **SUMMARY**

Review the objectives of a residential fire survey.

Review the benefit gained by the fire department.

Review the responsibilities of the firefighter while conducting a fire safety survey.

Review the procedures for conducting an interior survey.

Review the procedures for conducting an outside survey.

# LESSON FOUR

## FIREFIGHTER II

### Fire Prevention and Education

**DOMAIN:** COGNITIVE

**LEVEL OF LEARNING:** COMPREHENSION / APPLICATION

#### **MATERIALS**

IFSTA Essentials 5th edition or Jones and Bartlett Fundamentals of Fire Fighter Skills 2<sup>nd</sup> Edition or Delmar Firefighter's Handbook 3<sup>rd</sup> Edition; writing board; flip chart; overhead or laptop computer and multimedia projector; projection screen; fire prevention safety handouts, NFA "Learn not to Burn" program.

#### **NFPA 1001 JPR, 2008 edition**

6.5.2 Present fire safety information to station visitors or small groups

#### **Junior Member Statement:**

Junior Member training activities should be supervised by qualified instructors to assure that the cognitive and psychomotor skills are completed in a safe and non-evasive manner. While it is critical that instructors be constantly aware of the capabilities of all students both mentally and physically to complete certain tasks safely and successfully, the instructor should take every opportunity to discuss with departmental leaders and students the maturity and job awareness each participant has for the hazards associated with fire and rescue training.

## **TERMINAL OBJECTIVE**

The Firefighter II candidate when given a selected topic and appropriate teaching materials shall demonstrate presenting a life safety topic to an audience, and shall document the program title, number of participants, and submitted evaluations.

## **ENABLING OBJECTIVES**

1. The Firefighter II candidate shall be able to present a prepared program on one of the following topics:
  - a) Stop, drop and roll.
  - b) Crawl low in smoke.
  - c) Escape planning.
  - d) Alerting others.
  - e) Calling the fire department.
  - f) Fire station tour.
  - g) Residential smoke detector placement and maintenance.
  
2. The Firefighter II candidate when given a reporting form shall correctly document the presentation of a program including the program title, number of participants and an evaluation.

# LESSON FOUR

## FIREFIGHTER II

### Fire Prevention and Education

#### MOTIVATION

The most dangerous mind set regarding fire and burn hazards in the country is the attitude "IT CAN'T or WON'T HAPPEN TO ME". We know however, that injuries and death caused by fire number in the thousands annually. Because of this apathetic attitude, one of our primary duties as fire service personnel is to acquaint the public with the fire problem and then educate them as to how they can avoid the tragedies of fire.

#### PRESENTATION

#### ENABLING OBJECTIVE #1

The Firefighter II candidate shall be able to present a prepared program on one of the following topics:

- a) Stop, drop and roll.
  - b) Crawl low in smoke.
  - c) Escape planning.
  - d) Alerting others.
  - e) Calling the fire department.
  - f) Fire station tour.
  - g) Residential smoke detector placement and maintenance.
1. Discuss the responsibility we as fire service personnel have for educating all age groups about the tragedy of fire.
    - a) We must promote safety.
    - b) Motivate people to correct existing or potential hazards.
    - c) Make the public accountable to each other.
    - d) Prepare our children to be role models for the future.

2. Discuss the three steps of presenting a life safety program.
  - a) Preparing the audience to learn.
  - b) Make facts and ideas relative to the audience.
  - c) Audience participation.
3. Discuss the components for teaching the Stop Drop and Roll program.
4. Discuss the components of an effective residential safety program.
  - a) Developing an escape plan.
  - b) Illustrate crawling under the smoke and staying low.
5. Discuss the procedures for installing and maintaining residential smoke detectors.
  - a) Ideally locate one in every room. This may not be economical for all citizens.
  - b) Suggest a detector in every bedroom and on each level of the living unit.
  - c) Minimally, install detectors outside each sleeping area and between the sleeping areas and the rest of the residence.
6. Discuss pre-plans for a fire station tour.
  - a) List topics to be covered.
  - b) List safety issues to be addressed such as blowing the siren, letting children climb on the apparatus, letting adults ride on the platform truck, and letting children play with the station mascot.
  - c) Setup a time frame for the tour.
  - d) Develop procedures in the event the tour is interrupted by an emergency response.

Reference:

Delmar Handbook 3rd edition, pages 777-781

J&B Fundamentals 2<sup>nd</sup> edition, pages 919-922, 928-929

IFSTA Essentials 5th edition, pages 984-986, 988, 990-992

**PRESENTATION**

**ENABLING OBJECTIVE # 2**

The Firefighter II candidate when given a reporting form shall correctly document the presentation of a program including the program title, number of participants and an evaluation.

1. Discuss the procedures for documenting the assigned fire education presentation.

## **APPLICATION**

Have each student pick a subject about which to present a short, but concise program. Provide the students time to prepare. Have the students present their program on their selected topic, and allow the class to critique the program and rate the presentation on an evaluation sheet. Discuss the results and make recommendations to the students.

## **SUMMARY**

Review the fire service's role and responsibility for providing quality fire education programs to the public.

Review the steps for presenting a life safety program to the community.

Review the components of a life safety program.

Review the procedures for installing and maintaining smoke detectors.

Review the procedures for conducting a safe and productive station tour.

# **LESSON FIVE**

## **FIREFIGHTER II**

### **Fire Prevention and Education**

**DOMAIN:** COGNITIVE

**LEVEL OF LEARNING:** APPLICATION

#### **MATERIALS**

IFSTA Essentials 5th edition or Jones and Bartlett Fundamentals of Fire Fighter Skills 2<sup>nd</sup> Edition or Delmar Firefighter's Handbook 3<sup>rd</sup> Edition; writing board and flip chart; drawing supplies and graph paper; overhead projector or laptop computer and multimedia projector; projection screen; blank pre-incident planning form.

#### **NFPA 1001 JPR, 2008 edition**

6.5.3 Prepare a pre-incident survey

#### **Junior Member Statement:**

Junior Member training activities should be supervised by qualified instructors to assure that the cognitive and psychomotor skills are completed in a safe and non-evasive manner. While it is critical that instructors be constantly aware of the capabilities of all students both mentally and physically to complete certain tasks safely and successfully, the instructor should take every opportunity to discuss with departmental leaders and students the maturity and job awareness each participant has for the hazards associated with fire and rescue training.

## **TERMINAL OBJECTIVE**

The Firefighter II candidate shall correctly identify in writing the importance of and the procedures necessary for implementing a pre-incident survey and demonstrate conducting a mock building pre-incident survey.

## **ENABLING OBJECTIVES**

1. The Firefighter II candidate shall correctly identify in writing information relative to construction, occupancy, special hazards and other details vital to a pre-fire plan.
2. The Firefighter II candidate shall correctly identify in writing the procedures for conducting an on-site pre-incident survey of a commercial building.
3. The Firefighter II candidate shall correctly identify in writing the types of sketches, drawings or diagrams needed to supply the information needed in a pre-fire plan.
4. The Firefighter II candidate, when given the appropriate equipment, shall correctly demonstrate conducting a mock building inspection.

# **LESSON FIVE**

## **FIREFIGHTER II**

### **Fire Prevention and Education**

#### **MOTIVATION**

There is an old saying, "An ounce of prevention is worth a pound of cure." That saying should be considered a motto for today's fire service. Fire prevention has become as much a component of a fire department's day-to-day operation as fire fighting. This lesson plan covers the basic components of a pre-incident survey. It teaches firefighters the fundamentals of conducting a pre-incident survey, documenting findings, assisting businesses and homeowners with correcting problems and storing data for future reference. It should be emphasized that diagrams and sketches provide valuable information in the pre-planning of a residential site or business facility. The information contained in these diagrams or sketches should be concise and accurate. From the firefighter's sketch or diagram, a permanent drawing can be made and used for future reference or for classroom study.

#### **PRESENTATION**

##### **ENABLING OBJECTIVE #1**

The Firefighter II candidate shall correctly identify in writing information relative to construction, occupancy, special hazards and other details vital to a pre-fire plan.

1. Identify what knowledge the fire department gains by conducting a pre-incident survey.
  - a) Construction design.
  - b) Storage location of hazardous materials.
  - c) Special processes done in the facility.
  - d) Identify fire notification and suppression features.
  - e) Occupancy concerns.

2. Discuss what is achieved by conducting a pre-incident survey.
  - a) Familiarization with area structures and their uses and hazards.
  - b) Visualize how existing strategies apply to the occupancies.
  - c) Recognize general hazards.
  - d) Aids citizens with fire prevention and life safety issues.
  - e) Valuable information is gained by on-site inspection.

Reference:

Delmar Handbook 3rd edition, pages 781-782

J&B Fundamentals 2<sup>nd</sup> edition, page 648

IFSTA Essentials 5th edition, pages 970-971

## **PRESENTATION**

### **ENABLING OBJECTIVE # 2**

The Firefighter II candidate shall correctly identify in writing the procedures for conducting an on-site pre-incident survey of a commercial building.

1. Discuss the components of establishing a positive rapport at the beginning of the commercial site pre-incident survey.
  - a) Initiate the survey at the main entrance.
  - b) Make contact with the appropriate representative.
  - c) Make appropriate introductions.
  - d) State the purpose of survey.
2. Discuss the components of conducting a pre-incident survey.
  - a) Begin with the exterior survey.
  - b) Are address numbers visible?
  - c) Are all sides of the structure accessible?
  - d) Is natural cover encroachment a problem?
  - e) Are there forcible entry problems?
  - f) Are there overhead obstructions or hazards?
  - g) Are there any problems with the roof?
  - h) What are the common fire hazards?
3. Discuss the general components of conducting an interior survey.

- a) Take notes.
- b) Ask questions of the business representative.
- c) Make sketches.
- d) Take photographs.
- e) Check behind locked doors.
- f) Check closets.
- g) Check if access is denied to an area of the building for security reasons. Make a notation and report it to local fire marshal.
- h) Check for cleanliness.
- i) Check maintenance records.
- j) Document location of hazardous material.
- k) Verify that appropriate placards are displayed.
- l) Conduct an exit survey with business representative.

Reference:

Delmar Handbook 3rd edition, pages 757-769.

&B Fundamentals 2<sup>nd</sup> edition, pages 647-651

IFSTA Essentials 5th edition, pages 968-970, 972

## **PRESENTATION**

### **ENABLING OBJECTIVE # 3**

The Firefighter II candidate shall correctly identify in writing the types of sketches, drawings or diagrams needed to supply the information needed in a pre-fire plan.

1. Discuss how accurate drawings and sketches are of vital importance in the development of a pre-plan and are a valuable tool for the firefighter at the emergency scene.
  - a) Plot plan.
2. Discuss the importance of using standard map symbols.
3. Discuss the advantages of supplementing the pre-plan report with pictures.
  - a) Video.
  - b) 35 mm.
  - c) Digital.

Reference:

Delmar Handbook 3rd edition, pages 782-784

J&B Fundamentals 2<sup>nd</sup> edition, pages 646-647  
IFSTA Essentials 5th edition, pages 973-976

## **PRESENTATION**

### **ENABLING OBJECTIVE # 4**

The Firefighter II candidate, when given the appropriate equipment, shall correctly demonstrate conducting a mock building inspection.

1. Use the APPLICATION phase of this lesson plan to accomplish this objective.

Reference:

J&B Fundamentals 2<sup>nd</sup> edition, page 645

### **APPLICATION**

Secure a location suitable for conducting a mock pre-incident survey. Divide the candidates into equal groups. Supply each group with a pre-incident survey form used by the authority having jurisdiction. Take several sheets of paper and pencils for taking notes and creating sketches. Instruct each group to conduct a pre-incident survey as if they had just arrived at a business facility. The instructor or assistant instructor shall portray the role of the representative. Allow the groups to critique each performance. The instructor(s) should conduct a final critique.

### **SUMMARY**

Review the knowledge that is obtained by a pre-incident survey.

Review procedure for conducting an effective survey.

Review the reasons for incorporating diagrams and sketches into a pre-incident survey.

# **LESSON SIX**

## **FIREFIGHTER II**

### **Fire Prevention and Education**

**DOMAIN:** COGNITIVE

**LEVEL OF LEARNING:** APPLICATION

#### **MATERIALS**

IFSTA Essentials 5th edition or Jones and Bartlett Fundamentals of Fire Fighter Skills 2<sup>nd</sup> Edition or Delmar Firefighter's Handbook 3<sup>rd</sup> Edition; writing board and flip chart; blank NC Fire and Rescue Commission fire incident report; pencils; overhead projector or laptop computer and multimedia projector; projection screen.

#### **NFPA 1001 JPR, 2008 edition**

6.2.1 Complete a basic incident report

#### **Junior Member Statement:**

Junior Member training activities should be supervised by qualified instructors to assure that the cognitive and psychomotor skills are completed in a safe and non-evasive manner. While it is critical that instructors be constantly aware of the capabilities of all students both mentally and physically to complete certain tasks safely and successfully, the instructor should take every opportunity to discuss with departmental leaders and students the maturity and job awareness each participant has for the hazards associated with fire and rescue training.

## **TERMINAL OBJECTIVE**

The Firefighter II, when given a mock scenario and necessary forms, shall fill out a fire incident report transferring vital on-scene information to the appropriate location on the incident report and enhancing the report by diagrams and sketches.

## **ENABLING OBJECTIVES**

1. The Firefighter II candidate shall correctly identify a fire incident report such as the one used by the North Carolina Fire & Rescue Commission.
2. The Firefighter II candidate shall correctly identify in writing the necessary information that is needed to complete a basic fire incident report.
3. The Firefighter II candidate shall correctly identify in writing the importance of the information contained on a basic fire incident report.

# **LESSON SIX**

## **FIREFIGHTER II**

### **Fire Prevention and Education**

#### **MOTIVATION**

Fire incident reports are the basis for statistics, investigations, and fire safety programs. They convey to the fire service information necessary to provide an accurate account of what has taken place and a basis from which to conduct investigations and perform prevention work. The firefighter must be aware of the need for complete and accurate information and must be aware of the types of information that is necessary to complete such a form.

#### **PRESENTATION**

##### **ENABLING OBJECTIVE #1**

The Firefighter II candidate shall correctly identify a fire incident report such as the one used by the North Carolina Fire & Rescue Commission.

1. Distribute a blank fire incident report to the students.
2. Allow a few minutes for the students to review the form.

Reference: NC Fire and Rescue Commission Fire Incident Report.

#### **PRESENTATION**

##### **ENABLING OBJECTIVE #2**

The Firefighter II candidate shall correctly identify in writing the necessary information that is needed to complete a basic fire incident report.

1. Distribute a blank fire report to each firefighter.

2. List and discuss the information that is needed to correctly fill out the form.
3. Discuss the correct procedures for filling out a basic fire incident report.

Reference: NC Fire and Rescue Commission Fire Incident Report.

## **PRESENTATION**

### **ENABLING OBJECTIVE #3**

The Firefighter II candidate shall correctly identify in writing the importance of the information contained on a basic fire incident report.

1. Discuss the information contained on the report.
2. Ask why is this information important?
  - a) Data gathering.
  - b) Legal and ethical issues involved in completing reports.
3. Discuss the responses from the class.

Reference: NC Fire and Rescue Commission Fire Incident Report.

## **APPLICATION**

Design a mock residential or commercial fire scenario. Incorporate data into the scenario that can be applied to a fire incident report. Allow time for the individual students to fill out a fire report. Review the information shown on the report. Discuss the need for accurate information. Collect the reports.

## **SUMMARY**

Review identifying a basic fire incident report as well as the information needed to fill out a basic fire incident report.

Review the importance of gathering that information.

# LESSON SEVEN

## FIREFIGHTER II

### Fire Prevention and Education

**DOMAIN:** COGNITIVE

**LEVEL OF LEARNING:** APPLICATION

#### **MATERIALS**

IFSTA Essentials 5th edition or Jones and Bartlett Fundamentals of Fire Fighter Skills 2<sup>nd</sup> Edition or Delmar Firefighter's Handbook 3<sup>rd</sup> Edition; writing board and flip chart; overhead projector or laptop computer and multimedia projector; projection screen.

#### **NFPA 1001 JPR, 2008 edition**

6.5.3 Prepare a pre-incident survey

#### **Junior Member Statement:**

Junior Member training activities should be supervised by qualified instructors to assure that the cognitive and psychomotor skills are completed in a safe and non-evasive manner. While it is critical that instructors be constantly aware of the capabilities of all students both mentally and physically to complete certain tasks safely and successfully, the instructor should take every opportunity to discuss with departmental leaders and students the maturity and job awareness each participant has for the hazards associated with fire and rescue training.

## **TERMINAL OBJECTIVE**

The Firefighter II candidate shall identify in writing the components of a sprinkler system and describe the operational characteristics of it.

## **ENABLING OBJECTIVES**

1. The Firefighter II candidate shall correctly identify in writing the two types of sprinkler coverage.
2. The Firefighter II candidate shall correctly identify in writing what effect sprinkler systems have on life safety?
3. The Firefighter II candidate shall correctly identify in writing the fundamentals of a sprinkler system.
4. The Firefighter II candidate shall correctly identify in writing the applications of a sprinkler system.

# LESSON SEVEN

## FIREFIGHTER II

### Fire Prevention and Education

#### MOTIVATION

Standpipe systems provide fire hose outlets at each floor level and sometimes on the roof of multi-level buildings. Standpipe systems may also be used in various areas of large single story buildings. It is important that the firefighter know how to inspect and use such systems in the event of an emergency.

#### PRESENTATION

##### ENABLING OBJECTIVE #1

The Firefighter II candidate shall correctly identify in writing the two types of sprinkler coverage.

1. Identify how sprinklers are mounted.
  - a) Extends from exposed pipes.
  - b) Protrudes through ceilings or walls from hidden pipes.
2. List the two types of sprinkler coverage for sprinkler systems.
  - a) Complete sprinkler system.
  - b) Partial sprinkler system.

#### Reference:

Delmar Handbook 3rd edition, pages 358-365  
J&B Fundamentals 2<sup>nd</sup> edition, pages 650 & 953  
IFSTA Essentials 5th edition, pages 842

#### PRESENTATION

##### ENABLING OBJECTIVE #2

The Firefighter II candidate shall correctly identify in writing what effect sprinkler systems have on life safety.

1. Discuss the positive effects sprinklers provide.
  - a) Sprays water directly on the fire during the early stage.
  - b) Prevents vertical fire spread in multiple story building.
  - c) Protects occupants.
  
2. Discuss the negative aspects that sometimes hamper the efficiency of the sprinkler system.
  - a) Partial or total closure of the main water control valve.
  - b) Interruption to the main water supply.
  - c) Damaged or painted over sprinklers.
  - d) Frozen or broken pipes.
  - e) Excess debris or sediment in pipes.
  - f) Failure of a secondary water supply.
  - g) Tampering.

Reference:

Delmar Handbook 3rd edition, pages 366-367, 763-764

J&B Fundamentals 2<sup>nd</sup> edition, page 950

IFSTA Essentials 5th edition, pages 843

## **PRESENTATION**

### **ENABLING OBJECTIVE #3**

The Firefighter II candidate shall correctly identify, in writing, the fundamentals of a sprinkler system.

1. List and discuss the fundamental operation of sprinkler systems.
  - a) Sprinklers.
  - b) Sprinkler position.
  - c) Sprinkler storage.
  - d) Control valves.
  - e) Operating valves.
  - f) Water flow alarm.

Reference:

Delmar Handbook 3rd edition, pages 357-364

J&B Fundamentals 2<sup>nd</sup> edition, pages 949-958

IFSTA Essentials 5th edition, pages 844-850

## **PRESENTATION**

### **ENABLING OBJECTIVE #4**

The Firefighter II candidate shall correctly identify in writing the applications of a sprinkler system.

1. Identify and discuss the fundamental operations of the following items.
  - a) Wet-pipe system.
  - b) Dry pipe system.
  - c) Pre-action system.
  - d) Deluge system.
  - e) Residential system.

Reference:

Delmar Handbook 3rd edition, pages 361-366  
J&B Fundamentals 2<sup>nd</sup> edition, pages 958-961  
IFSTA Essentials 5th edition, pages 852-856

## **APPLICATION**

Make arrangements for the candidates to tour a facility that has a functional sprinkler system. This may be your local fire service training facility, or it may be a business facility. Allow the candidate the opportunity to see a sprinkler system and how it operates.

## **SUMMARY**

Review the positive and negative impact sprinkler systems have on fire.

Review the fundamental operations of the different components of a sprinkler system.

Review the operational capabilities of the listed sprinkler systems.

# **LESSON EIGHT**

## **FIREFIGHTER II**

### **Fire Prevention and Education**

**DOMAIN:** COGNITIVE

**LEVEL OF LEARNING:** APPLICATION

#### **MATERIALS**

IFSTA Essentials 5th edition or Jones and Bartlett Fundamentals of Fire Fighter Skills 2<sup>nd</sup> Edition or Delmar Firefighter's Handbook 3<sup>rd</sup> Edition; writing board and flip chart; overhead projector or laptop computer and multimedia projector; projection screen; various types of smoke, heat, and flame detectors.

#### **NFPA 1001 JPR, 2008 edition**

6.5.3 Prepare a pre-incident survey

#### **Junior Member Statement:**

Junior Member training activities should be supervised by qualified instructors to assure that the cognitive and psychomotor skills are completed in a safe and non-evasive manner. While it is critical that instructors be constantly aware of the capabilities of all students both mentally and physically to complete certain tasks safely and successfully, the instructor should take every opportunity to discuss with departmental leaders and students the maturity and job awareness each participant has for the hazards associated with fire and rescue training.

## **TERMINAL OBJECTIVE**

The Firefighter II candidate shall correctly identify in writing smoke, flame, and heat detection alarm systems and describe the general function of each type.

## **ENABLING OBJECTIVES**

1. The Firefighter II candidate shall correctly identify, through drawings and definitions, or actual products, different types of heat detectors and describe their function.
2. The Firefighter II candidate shall correctly identify, through drawings and definitions, or actual products, different types of smoke detectors and describe their function.
3. The Firefighter II candidate shall correctly identify, through drawings and definitions, or actual products, different types of flame detectors and describe their function.
4. The Firefighter II candidate shall correctly identify, through drawings and definitions, or actual products, fire-gas detectors, combination detectors and indicating devices.
5. The Firefighter II candidate shall correctly identify, through drawings and definitions or actual products, automatic alarm systems.
6. The Firefighter II candidate shall correctly identify, through drawings and definitions, or actual products, Supervising Fire Alarm Systems.
7. The Firefighter II candidate shall correctly identify, through drawings and definitions, auxiliary services.

# LESSON EIGHT

## FIREFIGHTER II

### Fire Prevention and Education

#### MOTIVATION

Besides public means of notifying the fire department, private systems are used to detect and transmit alarms to fire departments in the event of a fire. A basic understanding of these systems and their components is necessary if a firefighter is to be expected to inspect and evaluate their use and performance.

#### PRESENTATION

#### ENABLING OBJECTIVE #1

The Firefighter II candidate shall correctly identify, through drawings and definitions, or actual products, different types of heat detectors and describe their function.

1. List and discuss the three types of fixed temperature devices.
  - a) Fusible devices.
  - b) Continuous line detector.
  - c) Bimetallic detector.
  
2. List and discuss the types of rate-of-rise heat detectors.
  - a) Spot detector.
  - b) Line detector.
  - c) Rate compensated detector.
  - d) Thermoelectric detector.

#### Reference:

Delmar Handbook 3rd edition, pages 353-355  
J&B Fundamentals 2<sup>nd</sup> edition, pages 943-944, 950  
IFSTA Essentials 5th edition, pages 827-831

## **PRESENTATION**

### **ENABLING OBJECTIVE #2**

The Firefighter II candidate shall correctly identify, through drawings and definitions, or actual products, different types of smoke detectors and describe their function.

1. List and discuss the two types of smoke detectors.
  - a) Photoelectric.
  - b) Ionization.
  
2. Discuss power source requirements for smoke detectors
  - a) AC/Batteries.
  - b) Manufacturer's recommendation.
  - c) State and local laws and codes.

Reference:

Delmar Handbook 3rd edition, pages 353-355.

J&B Fundamentals 2<sup>nd</sup> edition, pages 938-940

IFSTA Essentials 5th edition, pages 832-834

## **PRESENTATION**

### **ENABLING OBJECTIVE #3**

The Firefighter II candidate shall correctly identify, through drawings and definitions, or actual products, different types of flame detectors and describe their function.

1. List and discuss the three types of flame detectors.
  - a) Detects light in ultra violet wave spectrum, UV waves.
  - b) Detects light in the infrared spectrum, IR waves.
  - c) Detects light in both spectrums.
  
2. Discuss the fundamental operations of a fire-gas detector.

Reference:

Delmar Handbook 3rd edition, pages 356-357 :

J&B Fundamentals 2<sup>nd</sup> edition, page 944

IFSTA Essentials 5th edition, page 834

## **PRESENTATION**

## **ENABLING OBJECTIVE #4**

The Firefighter II candidate shall correctly identify, through drawings and definitions, or actual products, fire-gas detectors, combination detectors and indicating devices.

1. List and discuss the operational characteristics of the various detectors.
  - a) Fire-gas detectors.
  - b) Combination detectors.
  - c) Indicating devices.

Reference:

Delmar Handbook 3rd edition, pages 356-357  
J&B Fundamentals 2<sup>nd</sup> edition, pages 944-948  
IFSTA Essentials 5th edition, pages 835-836

## **PRESENTATION**

## **ENABLING OBJECTIVE #5**

The Firefighter II candidate shall correctly identify, through drawings and definitions or actual products, automatic alarm systems.

1. List and discuss the three types of auxiliary systems.
  - a) Local energy systems.
  - b) Shunt system.
  - c) Parallel telephone system.
2. List and discuss the functions of a remote station system.
3. List and discuss the functions of a proprietary system.
4. List and discuss the functions of a central station system.

Reference:

Delmar Handbook 3rd edition, pages 63-64  
J&B Fundamentals 2<sup>nd</sup> edition, pages 948-949  
IFSTA Essentials 5th edition, pages 837-840

## **PRESENTATION**

## **ENABLING OBJECTIVE #6**

The Firefighter II candidate shall correctly identify, through drawings and definitions, or actual products, Supervising Fire Alarm Systems.

1. Discuss the operational characteristics of Supervising Fire Alarm Systems.

Reference:

IFSTA Essentials 5th edition, pages 840-842

## **PRESENTATION**

### **ENABLING OBJECTIVE #7**

The Firefighter II candidate shall correctly identify, through drawings and definitions, Auxiliary Services.

1. Discuss the operational characteristics of Auxiliary Services.

Reference:

J&B Fundamentals 2<sup>nd</sup> edition, pages 948-949

IFSTA Essentials 5th edition, page 842

## **APPLICATION**

Arrange a field trip to a facility that incorporates as many of the devices as possible discussed in this lesson plan. Suggest contact with the facility Safety Officer to assist with the tour.

## **SUMMARY**

Review the operational characteristics of the two types of heat detectors.

Review the operational characteristics of the flame and fire-gas detectors.

Review the operational characteristics of the various types of automatic alarm systems.

Review the operational characteristics of the supervising alarm system and auxiliary services.

# **LESSON NINE**

## **FIREFIGHTER II**

### **Fire Prevention and Education**

**DOMAIN:** COGNITIVE

**LEVEL OF LEARNING:** APPLICATION

#### **MATERIALS**

IFSTA Essentials 5th edition or Jones and Bartlett Fundamentals of Fire Fighter Skills 2<sup>nd</sup> Edition or Delmar Firefighter's Handbook 3<sup>rd</sup> Edition; writing board and flip chart; overhead projector or laptop computer and multimedia projector; projection screen.

#### **NFPA 1001 JPR, 2008 edition**

6.5.3 Prepare a pre-incident survey

#### **Junior Member Statement:**

Junior Member training activities should be supervised by qualified instructors to assure that the cognitive and psychomotor skills are completed in a safe and non-evasive manner. While it is critical that instructors be constantly aware of the capabilities of all students both mentally and physically to complete certain tasks safely and successfully, the instructor should take every opportunity to discuss with departmental leaders and students the maturity and job awareness each participant has for the hazards associated with fire and rescue training.

## **TERMINAL OBJECTIVE**

The Firefighter II candidate shall correctly identify in writing the different classifications of fire hazards associated with commercial property and the factors that contribute to the hazard's origin.

## **ENABLING OBJECTIVES**

1. The Firefighter II candidate shall correctly identify in writing the factors that may contribute to a fire hazard.
2. The Firefighter II candidate shall correctly define in writing the terms Common Fire Hazards, Special Fire Hazards, and Target Hazard Property, and discuss the factors that relate to each term.

# LESSON NINE

## FIREFIGHTER II

### Fire Prevention and Education

#### MOTIVATION

Fire hazards come in many shapes and sizes from frayed wires to unstable hazardous material. Firefighters are perilously challenged whenever they respond to a fire involving commercial property. There is a much greater risk of multiple firefighter fatalities or injuries in such an environment. Firefighters must be aware of the risk and challenges that await them and be prepared to reduce this risk, by making a proper scene assessment and other crucial decisions. The Bible tells us, that a man can make no greater sacrifice than to give his life for a fellow man. But, we were not meant to give up our lives foolishly.

#### PRESENTATION

##### ENABLING OBJECTIVE #1

The Firefighter II candidate shall correctly identify in writing the factors that may contribute to a fire hazard.

1. Define "Fire Hazards"
  - a) Any condition that encourages a fire to start or increases the severity and or extension of the fire.
  
2. Identify types of fuel hazards.
  - a) Ordinary combustibles.
  - b) Flammable and combustible gas.
  - c) Flammable and combustible liquids.
  - d) Chemicals.
  - e) Dust.
  - f) Metals.
  - g) Plastics.
  
3. Identify heat source hazards.

- a) Chemical energy.
- b) Electrical energy.
- c) Mechanical energy.
- d) Nuclear energy.

Reference:

Delmar Handbook 3rd edition, pages 89-92, 96, 106-107, 758, 769, 965, 1000-1004

IFSTA Essentials 5th edition, pages 962-963

## **PRESENTATION**

### **ENABLING OBJECTIVE #2**

The Firefighter II candidate shall correctly define in writing the terms Common Fire Hazards, Special Fire Hazards, and Target Hazard Properties, discuss the factors that relate to each term.

1. A common fire hazard refers to the probable frequency of a hazard being found.
  - a) Poor housekeeping, and improper storage of combustibles.
  - b) Defective or improper use of lighting and heating.
  - c) Power tools.
  - d) Misuse of fumigation substances.
2. A special fire hazard is the result of the processes or operations that are characteristics of the different occupancies. Discuss these special hazards.
  - a) Commercial.
  - b) Manufacturing.
  - c) Public assembly buildings.
3. A target hazard property is a facility that is considered to have an increased probability of loss of life and property in the event of a fire.
  - a) Lumberyards.
  - b) Bulk oil storage facilities.
  - c) Area shopping centers.
  - d) Hospitals.
  - e) Theaters.
  - f) Nursing homes.
  - g) Schools.
  - h) Row tenements.

Reference:

Delmar Handbook 3rd edition, pages 401, 702-706, 758-771, 782

J&B Fundamentals 2<sup>nd</sup> edition, pages 644, 924-928

IFSTA Essentials 5th edition, pages 964-966

## **SUMMARY**

Review the factors that account for a fire hazard.

Review the three types of fire hazards and discuss the impact they have on commercial, manufacturing and public assembly occupancy.