

Lesson Plan Development



CHAPTER

6

NFPA 1041 Standard

Instructor I

4.2.2 Assemble course materials, given a specific topic, so that the lesson plan and all materials, resources, and equipment needed to deliver the lesson are obtained. [p. 92–111]

(A) Requisite Knowledge. Components of a lesson plan, policies and procedures for the procurement of materials and equipment, and resource availability. [p. 92–98]

(B) Requisite Skills. None required.

4.3 Instructional Development.

4.3.1* **Definition of Duty.** The review and adaptation of prepared instructional materials. [p. 99–104]

4.3.2* Review instructional materials, given the materials for a specific topic, target audience and learning environment, so that elements of the lesson plan, learning environment, and resources that need adaptation are identified. [p. 92–111]

(A) Requisite Knowledge. Recognition of student limitations, methods of instruction, types of resource materials, organization of the learning environment, and policies and procedures.

(B) Requisite Skills. Analysis of resources, facilities, and materials.

4.3.3* Adapt a prepared lesson plan, given course materials and an assignment, so that the needs of the student and the objectives of the lesson plan are achieved. [p. 99–104]

(A)* Requisite Knowledge. Elements of a lesson plan, selection of instructional aids and methods, origination of learning environment. [p. 92–98]

(B) Requisite Skills. Instructor preparation and organizational skills. [p. 98–102]

4.4.3 Present prepared lessons, given a prepared lesson plan that specifies the presentation method(s), so that the method(s) indicated in the plan are used and the stated objectives or learning outcomes are achieved. [p. 94–98]

(A) Requisite Knowledge. The laws and principles of learning, teaching methods and techniques, lesson plan components and elements of the communication process, and lesson plan terminology and definitions. [p. 92–111]

(B) Requisite Skills. Oral communication techniques, teaching methods and techniques, and utilization of lesson plans in the instructional setting.

4.4.4* Adjust presentation, given a lesson plan and changing circumstances in the class environment, so that class continuity and the objectives or learning outcomes are achieved. [p. 99–104]

(A) Requisite Knowledge. Methods of dealing with changing circumstances. [p. 99–104]

(B) Requisite Skills. None required.

4.4.5 Adjust to differences in learning styles, abilities, and behaviors, given the instructional environment, so that lesson objectives are accomplished, disruptive behavior is addressed, and a safe learning environment is maintained.

(A)* Requisite Knowledge. Motivation techniques, learning styles, types of learning disabilities and methods for dealing with them, and methods of dealing with disruptive and unsafe behavior.

(B) Requisite Skills. Basic coaching and motivational techniques, and adaptation of lesson plans or materials to specific instructional situations. [p. 99–104]

Instructor II

5.3 Instructional Development.

5.3.1 Definition of Duty. The development of instructional materials for specific topics. [p. 104–111]

5.3.2 Create a lesson plan, given a topic, audience characteristics, and a standard lesson plan format, so that the JPR's for the topic are achieved, and the plan includes learning objectives, a lesson outline, course materials, instructional aids, and an evaluation plan. [p. 104–111]

(A) Requisite Knowledge. Elements of a lesson plan, components of learning objectives, instructional methods and techniques, characteristics of adult learners, types and application of instructional media, evaluation techniques, and sources of references and materials. [p. 92–98]

(B) Requisite Skills. Basic research, using JPRs to develop behavioral objectives, student needs assessment, development of instructional media, outlining techniques, evaluation techniques, and resource needs analysis. [p. 101–111]

5.3.3 Modify an existing lesson plan, given a topic, audience characteristics, and a lesson plan, so that the JPR's for the topic are achieved and the plan includes learning objectives, a lesson outline, course materials, instructional aids, and an evaluation plan. [p. 111]

(A) Requisite Knowledge. Elements of a lesson plan, components of learning objectives, instructional methods and techniques, characteristics of adult learners, types and application of instructional media, evaluation techniques, and sources of references and materials. [p. 92–98]

(B) Requisite Skills. Basic research, using JPR's to develop behavioral objectives, student needs assessment, development of instructional media, outlining techniques, evaluation techniques, and resource needs analysis. [p. 101–111]

Knowledge Objectives

After studying this chapter, you will be able to:

- Identify and describe the components of learning objectives.
- Identify and describe the parts of a lesson plan.
- Describe the four-step method of instruction.
- Describe the instructional preparation process.
- Describe the lesson plan adaptation process for the Fire Service Instructor I.
- Describe how a Fire Service Instructor II creates a lesson plan.
- Describe how a Fire Service Instructor II modifies a lesson plan.

Skills Objectives

After studying this chapter, you will be able to:

- Utilize the four-step method of instruction.
- Review a lesson plan and identify the adaptations needed.
- Create a lesson plan that includes learning objectives, a lesson outline, instructional materials, instructional aids, and an evaluation plan.
- Adapt a lesson plan so that it both meets the needs of the students and ensures that learning objectives are met.
- Modify a lesson plan so that it both meets the needs of the students and ensures that all learning objectives are met.

You Are the Fire Service Instructor



Your officer asks you to conduct a forcible-entry class for a group of new fire fighters. As part of this class, you have to tell the new fire fighters everything you know about getting in through a locked door. You have two hours to deliver the class. As your officer walks away, you think about everything that is involved in teaching a class.

1. What does your officer expect the outcome of this class to be?
2. Which resources and equipment will you need?
3. How will you know whether the new fire fighters have learned what is expected?

Introduction

When most people think about the job of a fire service instructor, they picture the actual delivery of a presentation in the front of the classroom. Although lectures are an important aspect of instruction, they are not the only part of the job. Most fire service instructors spend many hours planning and preparing for a class before students ever arrive in the classroom. There are many details to address when planning a class:

- How much time will the class take?
- How many students will attend the class?
- What must the students know in order to understand what is being taught in the class?
- Which equipment will be needed?
- In what order will the instructional material be presented?

All of these questions and more are answered during the planning and preparation for the class. This information is compiled into a document called a lesson plan. A [lesson plan](#) is a detailed guide used by the fire service instructor for preparing and delivering instruction to students. A fire service instructor who uses a well-prepared and thorough lesson plan to organize and prepare for class greatly increases the odds of ensuring quality student learning. A Fire Service Instructor I uses a lesson plan that is already developed. A Fire Service Instructor II may develop his or her own lesson plan.

Why Use a Lesson Plan?

Most people without experience in the field of education do not understand the importance of a lesson plan. Attempting to deliver instruction without a lesson plan is like driving in a foreign country without a map ([FIGURE 6.1](#)). The goal in both situations is to reach your intended destination. In a lesson plan, the learning objectives are the intended destination. Without a map (the lesson plan), you most likely will not reach the destination. Also, without a lesson plan that contains learning objectives, you may not even know what the destination for the class is. In other words, if you do not have



FIGURE 6.1 Attempting to deliver instruction without a lesson plan is like driving in a foreign country without a map. Don't waste valuable class time searching for directions.

Teaching Tip

At first, lesson plans may seem awkward and disorganized, but there is a logical thought process behind the design. You simply need to learn its methodology.

clearly written learning objectives for your class and a plan for how to achieve them, odds are that you will not be successful.

Written lesson plans also ensure consistency of training across the fire department. When a class is taught multiple times, especially by different fire service instructors, a common lesson plan ensures that all students receive the same information. Lesson plans are also used to document what was taught in a class. When the class needs to be taught again in the future, the new fire service instructor will be able to refer to the existing lesson plans and achieve the same learning objectives.

Teaching Tip

If you are using a common lesson plan, carefully review it, and write your comments and thoughts in the margins as you prepare for the class. It is particularly useful to note illustrative examples that you can use in class during the preparation stage so you do not have to think up examples under pressure. Good examples and local applications include your own firsthand experiences, and they make the material come alive for your students.

Learning Objectives

All instructional planning begins by identifying the desired outcomes. What do you want the students to know or be able to do by the end of class? These desired outcomes are called objectives. A [learning objective](#) is defined as a goal that is achieved through the attainment of a skill, knowledge, or both, and that can be observed or measured. Sometimes these learning objectives are referred to as performance outcomes or behavioral outcomes, for a simple reason: If students are able to achieve the learning objectives of a lesson, they will achieve the desired outcome of the class.

Components of Learning Objectives

Many different methods may be used for writing learning objectives. One method commonly employed in the fire service is the [ABCD method](#), where ABCD stands for Audience (Who?), Behavior (What?), Condition (How?), and Degree (How much?). (Learning objectives do not need to always be written in that order, however.) The ABCD method was introduced in the book *Instructional Media and the New Technologies of Education* written by Robert Heinich, Michael Molenda, and James D. Russell (Macmillan, 1996).

The *audience* of the learning objective describes who the students are. Are your students experienced fire fighters or new recruits? Fire service learning objectives often use terms such as “fire fighter trainee,” “cadet,” “fire officer,” or “students” to describe the audience.

Once the students have been identified, then the *behavior* is listed. The behavior must be an observable and measurable action. A common error in writing learning objectives is using words such as “know” or “understand” for the behavior. Is there really a method for determining whether someone understands something? It is better to use words such as “state,” “describe,” or “identify” as part of learning objectives—these are actions that you can see and measure. It is much easier to evaluate the ability of a student to identify the parts of a portable fire extinguisher than to evaluate how well the student understands the parts of a portable fire extinguisher.

The *condition* describes the situation in which the student will perform the behavior. Items that are often listed as conditions include specific equipment or resources given to the student, personal protective clothing or safety items that must be

used when performing the behavior, and the physical location or circumstances for performing the behavior. For example:

- “. . . in full protective equipment including self-contained breathing apparatus.”
- “. . . using the water from a static source, such as a pond or pool.”

The last part of the learning objective indicates the *degree* to which the student is expected to perform the behavior in the listed conditions. With what percentage of completion is the student expected to perform the behavior? Total mastery of a skill would require 100 percent completion—this means perfection, without missing any steps. Many times knowledge-based learning objectives are expected to be learned to the degree stated in the passing rate for written exams, such as 70 percent or 80 percent. Another degree that is frequently used is a time limit, which can be included in learning objectives dealing with both knowledge and skills.

ABCD learning objectives do not need to contain all of the parts in the ABCD order. Consider the following example:

In full protective equipment including SCBA, two fire fighter trainees will carry a 24-foot extension ladder 100 feet and then perform a flat raise to a second-floor window in less than one minute and thirty seconds.

Here the audience is “the fire fighter trainees.” The behaviors are “carry a 24-foot extension ladder” and “perform a flat raise.” Both carrying and raising are observable and measurable actions. The conditions are “full protective equipment including SCBA,” “100 feet,” and “to a second-floor window”; they describe the circumstances for carrying and raising the ladder. The degree is “less than one minute and thirty seconds.” The fire fighter trainees must demonstrate the ability to perform these behaviors to the proper degree to successfully meet this learning objective.

Strictly speaking, well-written learning objectives should contain all four elements of the ABCD method. Nevertheless, learning objectives are often shortened because one or more of the elements are assumed to be known. If a lesson plan is identified as being used for teaching potential fire service instructors, for example, every single objective may not need to start with “the fire service instructor trainee.” The audience component of the ABCD method may be listed once, at the top of all the objectives, or not listed at all.

The same principle applies to the condition component. If it is understood that a class requires all skills to be performed in full personal protective gear, it may not be necessary to list this condition in each individual learning objective. It is also common to omit the degree component, as many learning objectives are written with the assumption that the degree will be determined by the testing method. If the required passing grade for class written exams is 80 percent, it is assumed that knowledge learning objectives will be performed to that degree. Similarly, if the skill learning objectives for a class are required to be performed perfectly, a 100 percent degree for those learning objectives can be assumed.

Learning objectives should be shortened in this way only when the assumptions for the missing components are clearly

stated elsewhere in the lesson plan. Of course, a learning objective is unlikely to omit the behavior component, because this component is the backbone of the learning objective.

Parts of a Lesson Plan

Many different styles and formats for lesson plans exist. No matter which lesson plan format is used, however, certain components should always be included. Each of these components is necessary for you to understand and follow a lesson plan **FIGURE 6.2**.

Lesson Title or Topic

The lesson title or topic describes what the lesson plan is about. For example, a lesson title may be “Portable Fire Extinguishers” or “Fire Personnel Management.” Just by the lesson title, you should be able to determine whether a particular lesson plan contains information about the topic you are planning to teach.

Level of Instruction

It is important for a lesson plan to identify the level of instruction because your students must be able to understand the instructional material. Just as an elementary school teacher would not use a lesson plan developed for high school students, you must ensure that the lesson plan is written at an appropriate level for your students. Often the level of instruction in the fire service corresponds with NFPA standards for professional qualifications. If you are teaching new recruits or cadets, you would use lesson plans that are designated as having a Fire Fighter I or Fire Fighter II level of instruction. If you are teaching fire service professional development classes, you may use lesson plans that are specified as having a Fire Officer I or a Fire Service Instructor III level of instruction. Another method of indicating the level of instruction is by labeling the lesson plan with terms such as “beginner,” “intermediate,” or “advanced.” No matter which method is used to indicate the level of instruction, you should ensure that the material contained in a lesson plan is at the appropriate level for your students.

Another component of the level of instruction is the identification of any prerequisites. A prerequisite is a condition that must be met before the student is permitted to receive further instruction. Often, a prerequisite is another class. For example, a Fire Service Administration class would be a prerequisite for taking an Advanced Fire Service Administration class. A certification or rank may also be a prerequisite. Before being allowed to receive training on driving an aerial apparatus, for example, the department may require a student to hold the rank of a Driver and possess Driver/Operator—Pumper certification.

Behavioral Objectives, Performance Objectives, and Learning Outcomes

As mentioned earlier, learning objectives are the backbone of the lesson plan. All lesson plans must have learning objectives. Many methods for determining and listing learning

Safety Tip

You should ensure the proper prerequisites are met by each of your students. Failure to do so may mean that a student performs tasks that he or she is not qualified to perform.

objectives are available. The specific method used to write the learning objectives is not as important as ensuring that you understand the learning objectives for the lesson plan that you must present to your students.

Instructional Materials Needed

Most lesson plans require some type of instructional materials to be used in the delivery of the lesson plan. Instructional materials are tools designed to help you present the lesson plan to your students. For instance, audiovisual aids are the type of instructional material most frequently listed in a lesson plan—that is, a lesson plan may require the use of a video, DVD, or computer. Other commonly listed instructional materials include handouts, pictures, diagrams, and models. Also, instructional materials may be used to indicate whether additional supplies are necessary to deliver the lesson plan. For example, a preincident planning lesson plan may list paper, pencils, and rulers as the instructional materials needed.

Lesson Outline

The lesson outline is the main body of the lesson plan. This is discussed in detail on page 105.

References/Resources

Lesson plans often simply contain an outline of the information that must be understood to deliver the learning objectives. Fire service instructors who are not experts in a subject may need to refer to additional references or resources to obtain further information on these topics. The references/resources section may contain names of books, Web sites, or even names of experts who may be contacted for further information. By citing references in the lesson plan, the validity of the lesson plan can also be verified.

Lesson Summary

The lesson summary simply summarizes the lesson plan. It reviews and reinforces the main points of the lesson plan.

Assignment

Lesson plans often contain an assignment, such as a homework-type exercise that will allow the student to further explore or apply the material presented in the lesson plan. Be prepared to explain the assignment, its due date, the method for submitting the assignment, and the grading criteria to be used.

Applying the**JOB PERFORMANCE REQUIREMENTS (JPRs)**

The lesson plan is the tool used by a fire service instructor to conduct a training session. It is as essential as personal protective equipment (PPE) is to a fire fighter. The lesson plan details the information necessary to present the training session, which includes everything from the title of the class to the assignment for the next training session. In between are the resources needed, behavioral objectives, the content outline, and various teaching applications used to complete

the training. As a fire service instructor, you must review and practice the delivery of the lesson plan, check the materials needed for the class, and be ready to present the materials. Using the lesson plan, you must present a structured training session by taking advantage of appropriate methods of instruction to engage the students and use a variety of communication skills to complete the learning objectives.

Instructor I

The Instructor I will teach from a prepared lesson plan using appropriate methods of delivery and communication skills to ensure that the learning process is effective. The instructor must understand each component of the lesson plan. It may be necessary to adapt the lesson plan to the needs and abilities of the audience and the teaching environment.

Instructor II

The Instructor II will prepare the lesson plan components and determine the expected outcomes of the training session. The four-step method of instruction should be defined within the lesson plan and all instructional requirements outlined for the presenter's use.

JPRs at Work

Present prepared lesson plans by using various methods of instruction that allow for achievement of the instructional objectives. Adapt the lesson plan to student needs and conditions.

JPRs at Work

Create and modify existing lesson plans to better satisfy the student needs, job performance requirements, and objectives developed for the training session.

Bridging the Gap Between Instructor I and Instructor II

A partnership must exist between the developer of the lesson plan and the instructors who will deliver that lesson plan. In many cases, they may be the same person. If another person must deliver your lesson plan, however, you must be sure that all components of the lesson plan are clear and concise and that the material and instructional methods match the needs of the students. Your communications skills and knowledge of the learning process will be used at both instructor levels in the development and delivery of this content.

Instant Applications

1. Using a sample lesson plan included in supplemental course material, identify the components of the lesson plan.
2. Using the same sample lesson plan, adjust the lesson plan based on the needs of different audiences.
3. Analyze an existing lesson plan from your department. Are the components complete and accurate?

Instructor Guide Lesson Plan

Lesson Title: Use of Fire Extinguishers

← **Lesson Title**

Level of Instruction: Firefighter I

← **Level of Instruction**

Method of Instruction: Demonstration

Learning Objective: The student shall demonstrate the ability to extinguish a Class A fire with a stored-pressure water-type fire extinguisher. (NFPA 1001, 5.3.16)

← **Learning Objective**

References: Fundamentals of Firefighter Skills, 2nd Edition, Chapter 7

← **References**

Time: 50 Minutes

Materials Needed: Portable water extinguishers, Class A combustible burn materials, Skills checklist, suitable area for hands-on demonstration, assigned PPE for skill

← **Instructional Materials Needed**

Slides: 73–78*

Step #1 Lesson Preparation:

- Fire extinguishers are first line of defense on incipient fires
 - Civilians use for containment until FD arrives
 - Must match extinguisher class with fire class
 - FD personnel can use in certain situations, may limit water damage
 - Review of fire behavior and fuel classifications
 - Discuss types of extinguishers on apparatus
- Demonstrate methods for operation

Step #2 Presentation

A. Fire extinguishers should be simple to operate.

1. An individual with only basic training should be able to use most fire extinguishers safely and effectively.
2. Every portable extinguisher should be labeled with printed operating instructions.
3. There are six basic steps in extinguishing a fire with a portable fire extinguisher. They are:
 - a. Locate the fire extinguisher.
 - b. Select the proper classification of extinguisher.
 - c. Transport the extinguisher to the location of the fire.
 - d. Activate the extinguisher to release the extinguishing agent.
 - e. Apply the extinguishing agent to the fire for maximum effect.
 - f. Ensure your personal safety by having an exit route.
4. Although these steps are not complicated, practice and training are essential for effective fire suppression.
5. Tests have shown that the effective use of Class B portable fire extinguishers depends heavily on user training and expertise.
 - a. A trained expert can extinguish a fire up to twice as large as a non-expert can, using the same extinguisher.
6. As a fire fighter, you should be able to operate any fire extinguisher that you might be required to use, whether it is carried on your fire apparatus, hanging on the wall of your firehouse, or placed in some other location.

← **Lesson Outline**

B. Knowing the exact locations of extinguishers can save valuable time in an emergency.

1. Fire fighters should know what types of fire extinguishers are carried on department apparatus and where each type of extinguisher is located.
2. You should also know where fire extinguishers are located in and around the fire station and other work places.
3. You should have at least one fire extinguisher in your home and another in your personal vehicle and you should know exactly where they are located.

Step #3 Application

Slides 7–10

Ask students to locate closest extinguisher to training area

- C. It is important to be able to select the proper extinguisher.
1. This requires an understanding of the classification and rating system for fire extinguishers.
 2. Knowing the different types of agents, how they work, the ratings of the fire extinguishers carried on your fire apparatus, and which extinguisher is appropriate for a particular fire situation is also important.
 3. Fire fighters should be able to assess a fire quickly, determine if the fire can be controlled by an extinguisher, and identify the appropriate extinguisher.
 - a. Using an extinguisher with an insufficient rating may not completely extinguish the fire, which can place the operator in danger of being burned or otherwise injured.
 - b. If the fire is too large for the extinguisher, you will have to consider other options such as obtaining additional extinguishers or making sure that a charged hose line is ready to provide back-up.
 4. Fire fighters should also be able to determine the most appropriate type of fire extinguisher to place in a given area, based on the types of fires that could occur and the hazards that are present.
 - a. In some cases, one type of extinguisher might be preferred over another.
- D. The best method of transporting a hand-held portable fire extinguisher depends on the size, weight, and design of the extinguisher.
1. Hand-held portable fire extinguishers can weigh as little as 1 lb to as much as 50 lb.
 2. Extinguishers with a fixed nozzle should be carried in the favored or stronger hand.
 - a. This enables the operator to depress the trigger and direct the discharge easily.
 3. Extinguishers that have a hose between the trigger and the nozzle should be carried in the weaker or less-favored hand so that the favored hand can grip and aim the nozzle.
 4. Heavier extinguishers may have to be carried as close as possible to the fire and placed upright on the ground.
 - a. The operator can depress the trigger with one hand, while holding the nozzle and directing the stream with the other hand.
 5. Transporting a fire extinguisher will be practiced in Skill Drill 7-1.
- E. Activating a fire extinguisher to apply the extinguishing agent is a single operation in four steps.
1. The P-A-S-S acronym is a helpful way to remember these steps:
 - a. Pull the safety pin.
 - b. Aim the nozzle at the base of the flames.
 - c. Squeeze the trigger to discharge the agent.
 - d. Sweep the nozzle across the base of the flames.
 2. Most fire extinguishers have very simple operation systems.
 3. Practice discharging different types of extinguishers in training situations to build confidence in your ability to use them properly and effectively.
 4. When using a fire extinguisher, always approach the fire with an exit behind you.
 - a. If the fire suddenly expands or the extinguisher fails to control it, you must have a planned escape route.
 - b. Never let the fire get between you and a safe exit. After suppressing a fire, do not turn your back on it.
 5. Always watch and be prepared for a rekindle until the fire has been fully overhauled.
 6. As a fire fighter, you should wear your personal protective clothing and use appropriate personal protective equipment (PPE).
 7. If you must enter an enclosed area where an extinguisher has been discharged, wear full PPE and use SCBA.
 - a. The atmosphere within the enclosed area will probably contain a mixture of combustion products and extinguishing agents.

Step # 3 Application cont.

*Review rating systems handout—
Have students complete work
book activity page #389*

*What happens if wrong type or
size extinguisher is used?*

*Display available types
of extinguishers*

*Have students demonstrate steps
using empty extinguisher*

*Complete skills sheet #7-9
for each student*

*Review PPE required for
extinguisher use*

F. The oxygen content within the space may be dangerously depleted.

Step #4 Evaluation:

1. Each student will properly extinguish a Class A combustible fire using a stored-pressure type water extinguisher. (Skill Sheet x-1)
2. Each student will return extinguisher to service. (Skill Sheet x-2)

Lesson Summary:

- Classifications of fire extinguishers
- Ratings of fire extinguishers
- Types of extinguishers and agents
- Operation of each type of fire extinguishers
- Demonstration of Class A fire extinguishment using a stored pressure water extinguisher

Assignments:

1. Read Chapter 8 prior to next class.
2. Complete “You are the Firefighter” activity for Chapter 7 and be prepared to discuss your answers.

← Lesson Summary

← Assignment(s)

Step #3 Application cont.

Discuss hazards of extinguishing agents

FIGURE 6.2 The components of a lesson plan (*continued*).

The Four-Step Method of Instruction

While reviewing and preparing for class with your lesson plan, keep in mind the four-step method of instruction, which is shown in **TABLE 6.1**.

Table 6.1 The Four-Step Method of Instruction

Step in the Instructional Process	Instructor Action
1. Preparation	The instructor prepares the students to learn by identifying the importance of the topic, stating the intended outcomes, and noting the relevance of the topic to the student.
2. Presentation	The presentation content is usually organized in an outline form that supports an understanding of the learning objective.
3. Application	The instructor applies the presentation material as it relates to students' understanding. Often the fire service instructor will ask questions of the students or ask students to practice the skill being taught.
4. Evaluation	The evaluation of students' understanding through written exams or in a practical skill session.

Preparation Step

The **preparation step** is the first phase in the **four-step method of instruction**, which is the method of instruction most commonly used in the fire service. The preparation step—also called the motivation step—prepares or motivates students to learn. When beginning instruction, you should provide information to students that explains why they will benefit from the class. Adult learners need to understand how

they will directly benefit by attending the class, because very few adults have time to waste in sitting through a presentation that will not directly benefit them.

The benefit of a class can be explained in many ways:

- The class may count toward required hours of training.
- The class may provide a desired certification.
- The class may increase students' knowledge of a subject.

Whatever the benefit may be, you should explain it thoroughly during the preparation step. In a lesson plan, the preparation section usually contains a paragraph or a bulleted list describing the rationale for the class. During the preparation step, the Fire Service Instructor I needs to gain students' attention and prepare them to learn when the instructor begins presenting the prepared lesson plan. The Fire Service Instructor II, while developing the lesson plan, will include suggested preparation points, including safety- and survival-related information, local examples, and explanations of how the material will help improve students' ability to do their job

Presentation Step

The **presentation step** is the second step in the four-step method of instruction; it comprises the actual presentation of the lesson plan. During this step, you lecture, lead discussions, use audiovisual aids, answer student questions, and perform other techniques to present the lesson plan. Chapter 3, Methods of Instruction, discusses the various methods of instruction used during this step. In a lesson plan, the presentation section normally contains an outline of the information to be presented. It may also contain notes indicating when to use teaching aids, when to take breaks, or where to obtain more information.

Application Step

The **application step**, which is the third step in the four-step method of instruction, is the most important step because it is during this phase that students apply the knowledge presented in class. Learning occurs during this step as students practice skills, perhaps make mistakes, and retry skills as necessary. You should provide direction and support as each student performs this step. You must also ensure that all safety rules are followed as students engage in new behaviors.

In a lesson plan, the application section usually lists the activities or assignments that the student will perform. In the fire service, the application section often requires the use of skill sheets for evaluation purposes. The experienced fire service instructor uses the application step to make sure that each student is progressing along with the lesson plan. This step also allows students to actively participate and remain engaged in the learning process.

Evaluation Step

The **evaluation step** is the final step of the four-step method of instruction. It ensures that students correctly acquired the knowledge and skills presented in the lesson plan. The evaluation may, for example, take the form of a written test or a skill performance test. No matter which method of evaluation is used, the student must demonstrate competency without assistance. In a lesson plan, the evaluation section indicates the type of evaluation method and the procedures for performing the evaluation.

Teaching Tip

If you are creating a lesson plan, the evaluation should directly link back to the initial learning objectives outlined at the beginning of class.

Instructional Preparation

Once you have a lesson plan, the instructional preparation begins. Which materials are needed for the class? Which audiovisual equipment will be utilized? Where will the class be conducted? How much time will be needed? These and many other questions must be answered during instructional preparation. The information contained in the lesson plan should be used as a guide for instructional preparation.

Teaching Tip

Check all instructional materials prior to class and replace any missing or nonfunctional materials. This review includes ensuring that a video clip that plays on your home computer also plays on the computer that you will be using in the classroom.

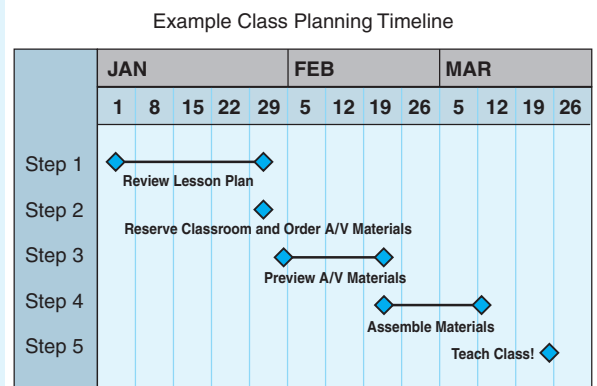


FIGURE 6.3 The well-organized fire service instructor always creates a class planning timeline.

Organizational Skills

Taking the information from a lesson plan and transforming it into a well-planned class takes good organizational skills. First, you should organize the class planning timeline **FIGURE 6.3**. Identify the time available for you to plan and prepare for the class. The time available for preparation is usually the amount of time from when the lesson plan is identified until the day when the class is scheduled to be taught. Identify the milestones that must be accomplished as part of this timeline. Depending on the lesson plan, milestones may include obtaining audiovisual equipment, purchasing materials, reserving a classroom, or previewing audiovisual aids.

Procuring Instructional Materials and Equipment

Most classes take advantage of instructional materials and equipment. The method of obtaining these instructional materials and equipment differs from fire department to fire department. A common method of procuring materials is for the fire service instructor to contact the person in the fire department who is responsible for purchasing training materials, such as a training officer or someone assigned to the training division. You may be required to provide a list of needed materials to the training officer. Often, this list of materials must be submitted long before the class is scheduled to begin. The training officer then compiles the materials either by purchasing new materials or by securing materials already available at the training division. The training officer contacts the fire service instructor when all class-related materials are available.

A common method for procuring class equipment is the equipment checkout process, which is typically managed by the fire department's training division. For example, if you need a multimedia projector for a class, you would submit a request for the projector in which you indicate the date and time the projector is needed. The training division would then reserve the projector for you. On the day of the class, the projector would be available for you. Depending on the



Voices of Experience

"I remember thinking to myself that I could even teach the course using his materials."

A few years into my career as a training officer, my assistant approached me asking for permission to teach a hazardous materials class. I asked him if he had a lesson plan to follow for the course. He didn't have one.

I spent the next hour or so with my assistant explaining what exactly a lesson plan is and the components of a successful lesson plan. I also emphasized that his lesson plan and supporting documents should be usable by anyone with little modification.

A few weeks later we sat down and reviewed the lesson plan he had prepared. I didn't have any trouble following his lesson plan. Additionally, I saw that he had his course materials, instructional aids, and his evaluation plan ready to go. I remember thinking to myself that I could even teach the course using his materials. I gave my approval and the class was scheduled.

As fate would have it, about a week before the class, my assistant broke his leg. There was no way he would be standing for six hours and conducting practical exercises. It was also too late to reschedule, as several individuals had adjusted their time to be there. Knowing that I had a good lesson plan to work from, I stepped up to the challenge.

With the lesson plan in place, I simply modified it to accommodate my teaching style without changing the objectives. Having the references and resources in the lesson plan made my preparation simple.

Eventually the day came to present. Despite my experience as an educator, I still found myself extremely nervous. To make matters worse, there were several people in the audience who had a lot more overall experience in this area than I did. I stuck to my guns, however, and followed the lesson plan. Not only did the class go well, but with the reference and resources list, I could answer all questions asked, either during the class or shortly afterward. I also took care to make certain everyone knew who had prepared the lesson plan and was responsible for the class success.

Philip J. Oakes
Laramie County Fire District #6
Burns, Wyoming

organizational procedures, you might be required to pick up the projector and set it up, or the training division might set up the projector at the class location for you.

■ Preparing for Instruction Delivery

The most important part of instructional preparation is preparing for actual delivery of the lesson plan in the classroom. If you obtain the necessary materials, equipment, and classroom, but you do not prepare to deliver the lesson plan, the class will not be successful. You should be thoroughly familiar with the information contained in the lesson plan, which may require you to consult the references listed in the lesson plan and research the topic further. If the lesson plan includes a computer presentation, then practice using this technology to deliver the presentation.

No matter which method of instructional delivery is used, you should always rehearse your presentation before delivering it to a classroom full of students. A class is destined for failure if you are seeing the presentation material for the first time in front of the class. Successful fire service instructors have a sound understanding of the information that they are delivering and can adapt to the particular needs of their class because they always know what is coming next.

■ Adapting a Lesson Plan

One of the most important—yet confusing—distinctions between a Fire Service Instructor I and a Fire Service Instructor II is the Fire Service Instructor II's ability to modify a lesson plan. A lesson plan is a guide or a roadmap for delivering instruction, but it is rarely implemented *exactly* as written. To understand what can and cannot be modified by each level of fire service instructor, let's review what the NFPA job performance requirements (JPRs) say about modifying and adapting a lesson plan.

Fire Service Instructor I

4.3.2 Review instructional materials, given the materials for a specific topic, target audience and learning environment, so that elements of the lesson plan, learning environment, and resources that need adaptation are identified.

Teaching Tip

All instructors routinely adapt and modify courses. While a Fire Service Instructor I may believe that a curriculum needs to be modified, those changes should be made only by a Fire Service Instructor II. This process will ensure that development of the curriculum is done correctly and that coverage of the lesson objectives is not reduced.

4.3.3 Adapt a prepared lesson plan, given course materials and an assignment, so that the needs of the student and the objectives of the lesson plan are achieved.

The Fire Service Instructor I should not alter the content or the lesson objectives. Prior to the beginning of the class, the Fire Service Instructor I should be able to evaluate local conditions, evaluate facilities for appropriateness, meet local standard operating procedures (SOPs), and evaluate students' limitations. He or she should be able to modify the method of instruction and course materials to meet the needs of the students and accommodate their individual learning styles, including making adaptations as necessary due to the learning environment, audience, capability of facilities, and types of equipment available.

Fire Service Instructor II

5.3.3 Modify an existing lesson plan, given a topic, audience characteristics, and a lesson plan, so that the JPRs for the topic are achieved, and the plan includes learning objectives, a lesson outline, course materials, instructional aids, and an evaluation plan.

To clearly understand the difference between adapting and modifying, you must understand the proper definitions of these terms:

- **Modify:** to make basic or fundamental changes
- **Adapt:** to make fit (as for a specific use or situation)

Put simply, a Fire Service Instructor II can make basic or fundamental changes to the lesson plan but a Fire Service Instructor I cannot. Fundamental changes include changing the performance outcomes, rewriting the learning objectives, modifying the content of the lesson, and so on.

So what can a Fire Service Instructor I do? He or she can make the lesson plan fit the situation and conditions. Conditions include the facility, the local SOPs, the environment, limitations of the student, and other local factors.

The NFPA standard specifically states that a Fire Service Instructor I may modify the method of instruction and course materials to meet the needs of the student and accommodate the individual fire service instructor's style. Here are a few real-life examples:

- A Fire Service Instructor I may modify a lesson plan's method of instruction from lecture to discussion if he or she determines that the latter method would be a better presentation format because of the students' level of knowledge.
- A Fire Service Instructor I may adapt the classroom setting if the facility cannot meet the seating arrangement listed in the lesson plan.
- A Fire Service Instructor I may adapt the number of fire fighters performing an evolution in a lesson plan from three to four to meet local staffing SOP requirements.
- A Fire Service Instructor I *cannot* modify a lesson plan learning objective that states a fire fighter must raise a 24-foot extension ladder because he or she feels the task is too difficult for one fire fighter.

Theory into Practice

Lesson plans must remain dynamic in both the short term and the long term. In the short term, you should understand when it is appropriate to adjust a lesson plan during its delivery based on students' learning styles, changing conditions, timing considerations, and students' progress. In the long term, you should provide input to your supervisor regarding the success of the delivery. If problems occurred or improvements are needed, report this feedback as well.

One critical component of lesson plan adaptability is the break times. The break times should be adjusted to fit the environment. The length of breaks can also be adjusted.

If you make adjustments to the delivery of a lesson plan, it is critical that you ensure that all learning objectives are still covered. For example, many times activities must be scheduled around the activities of other courses. Scheduling resources in the field with other instructors can help reduce conflicts. The program coordinator should be advised if an instructor intends to move portions of the program around so that the coordinator can ensure the change doesn't affect other programs and shared resources.

- A Fire Service Instructor I *cannot* change the JPR of developing a budget in a Fire Officer lesson plan because he or she does not feel comfortable teaching that subject.

As with all other positions within the fire service, it is important that fire service instructors perform only those actions within their level of training. As a Fire Service Instructor I, you must recognize what you can and cannot do. Acting outside your scope of training may lead to legal liability. If you are ever unsure if you have the ability to do something, check with a superior.

Reviewing Instructional Materials for Adaptation

There are many ways for a Fire Service Instructor I to obtain a lesson plan: fire service Web sites, commercially published curriculum packages, the National Fire Academy, your fire department's training library, or other fire departments. No matter which method is used, the lesson plan must be reviewed and any areas that need adaptation must be identified. This is true even for lesson plans that were originally developed within your fire department. Over time, standards and procedures change, so that a lesson plan that was completely correct for your department when it was created may be out-of-date in just a few months.

After obtaining a lesson plan, you must review the entire lesson plan and determine whether adaptations are needed to make the lesson plan usable for your class. As part of the class planning and preparation process, lesson plan adaptations must be scheduled and completed before you deliver the presentation to the class. A lesson plan might need adaptations

Teaching Tip

The National Fire Academy maintains a Web site called TRADE's Virtual TRADEing Post that enables fire service instructors to share non-copyrighted information, Power-Point presentations, lesson plans, and training programs or other downloadable materials. The training information is provided free of charge with the understanding that you must give credit to the department or agency that developed it.

This Web site is part of the Training Resources and Data Exchange (TRADE) program, which is a regionally based network designed to foster the exchange of fire-related training information and resources among federal, state, and local levels of government.

for many reasons, such as differences related to the learning environment, the audience, the capability of facilities, and the types of equipment available.

Evaluating Local Conditions

The main focus when adapting a lesson plan is to make minor adjustments so it fits your local conditions and your students' needs. To accomplish this, you must be familiar with your audience. Which organizational policies and procedures apply to the lesson plan? What is the current level of knowledge and ability of your students? Which types of tools and equipment will your students use in performing the skills within the lesson plan? These are all questions a Fire Service Instructor I should be contemplating when reviewing a lesson plan for any adaptations needed to accommodate the intended audience.

The second area pertaining to the local conditions that must be considered is you, the Fire Service Instructor I. What is your experience level and ability? How familiar are you with the topic that will be taught? What is your teaching style? The answers to these types of questions will allow you to adapt the lesson plan so that you deliver the lesson in the most effective way given your own abilities.

Evaluating Facilities for Appropriateness

You should review and adapt the lesson plan based on the facilities that will be used when delivering the class. Several factors—for example, the equipment available, student seating, classroom size, lighting, and environmental noise—must be considered as part of this evaluation. For example, a lesson plan may call for students to sit at tables that have been moved into a U-shaped arrangement. However, if the local classroom has desks that are fixed to the floor, you will not be able to arrange the seating as indicated in the lesson plan. The lesson plan would then need to be adapted to meet the conditions of the facility and the seating arrangement changed accordingly. You should make this adaptation, keeping in mind the reason for the indicated seating arrangement.

Meeting Local Standard Operating Procedures (SOPs)

A lesson plan must be reviewed to ensure that it meets and follows local SOPs. This is one of the most important considerations when adapting a lesson plan. You should never teach information that contradicts a SOP. Not only would this lesson be confusing for the students, but it would also create a liability for you. If a student were to be injured or killed while performing a skill in violation of a SOP, you would be held responsible. At a minimum, you would be disciplined within the organization. It is also possible that you might be held legally responsible in either criminal or civil court.

When reviewing a lesson plan, make note of the SOPs that may cover this topic. After completely reviewing the lesson plan, research the SOPs and ensure that no conflicts exist. If your research turns up conflicting information, you should adapt the lesson plan to meet the local SOPs. If you are not familiar with your local SOPs, contact someone within the department who can assist you with ensuring that the lesson plan is consistent with local SOPs.

Evaluating Limitations of Students

The lesson plan should also be reviewed based on student limitations and adapted to accommodate those limitations if possible. The lesson plan should be at the appropriate educational level for the students, and the prerequisite knowledge and skills should be verified. For example, if you were reviewing a lesson plan to teach an advanced hazardous materials monitoring class, students should have already undergone basic hazardous materials training. If you were training new fire fighters and reviewing this lesson plan, you may not be able to adapt it. Instead, you would most likely have to require additional training before the lesson plan would be appropriate to present to those students.

Sometimes it is possible to adapt a lesson plan to include information to accommodate the students' limitations. Many times, however, this mismatch indicates that the lesson plan should not be used.

Adapting a Prepared Lesson Plan

Reviewing and adapting a lesson plan should be a formal process. For instance, you should document in writing which adaptations have been made. Many times it is appropriate for the Fire Service Instructor I to obtain approval for the adapta-

tions. After completing the review and adaptation process, you should ensure that the adaptations are not really modifications. In other words, the minor adjustments you made while adapting the lesson plan should not significantly change the class or alter the learning objectives.

Modifying the Method of Instruction

Method of instruction is the one area that a Fire Service Instructor I may readily modify. Such a modification may be needed to allow you to effectively deliver the lesson plan, but it should not change the learning objectives. For example, you may not be comfortable using the discussion method to deliver a class on fire service sexual harassment as indicated by the lesson plan. Instead, you might modify the lesson plan and change the method of instruction to lecture. This would allow the same information to be taught, just in a different format, and the same learning objectives would still be achieved.

Accommodating Instructor Style

In addition to ensuring that the method of instruction best suits your abilities, lesson plans may be adapted to accommodate your style. A lesson plan often reflects the style of the fire service instructor who wrote it. When reviewing and adapting a lesson plan, consider whether the lesson plan—and especially the presentation section—fits your style. For example, a lesson plan may call for a humorous activity designed to establish a relationship between the instructor and the students. If you are teaching a military-style academy class, this may not be the best style, so you may need to adapt the presentation accordingly.

Ethics Tip

Fire service instructors regularly adapt material to meet their departmental needs and to improve the curriculum. Is it ethical to modify material to reflect your personal opinions when those opinions run counter to the traditional way of thinking? The solution to this dilemma is not as simple as it may seem. Imagine where the fire service would be today if only a few years ago bold fire service instructors did not step up to the plate and refuse to present material that was not based on safe practices. “Doing the right thing” is what ethical decisions are all about—but there is a fuzzy line between “the right thing” and “my way is the only right way.”

For example, modifying a course by eliminating the use of fog nozzles because you believe that these nozzles lead to hand burns is as dangerous as another fire service instructor eliminating the use of smooth-bore nozzles from a lesson plan. The reality is that students must understand the appropriate use, benefits, and dangers of each type of nozzle. What might seem like a simple modification could have serious consequences for a student who is not trained thoroughly and properly to department standards.

Safety Tip

When adapting a lesson plan, closely evaluate the revised plan's safety implications. It is all too easy to omit important safety information that was previously included or to include information that may create a safety issue when combined with other material.

■ Meeting the Needs of the Students

All adaptations should be done with one purpose in mind—namely, meeting the needs of the students. As with all lesson plans, the main goal is to provide instruction that allows students to obtain knowledge or skills. This goal should be verified after you review and adapt a lesson plan.

■ Creating a Lesson Plan

The Fire Service Instructor II is responsible for creating lesson plans. Depending on the subject, this task can take anywhere from several hours to several weeks. No matter how big or small the lesson plan may be, the ultimate goal is to create a document that any fire service instructor can use to teach the subject and ensure that students achieve the learning objectives. A Fire Service Instructor II should ensure that the lesson plan is complete and clearly understandable so that any other fire service instructor can use it. Many fire departments have lesson plan templates for the Fire Service Instructor II to use as a starting point. Such a standard format makes it easier for all fire service instructors in the department to understand the lesson plan and ensures consistency in training.

Safety Tip

Once a lesson plan is modified, go back and confirm that all learning objectives are met.

■ Achieving Job Performance Requirements

The first step of lesson plan development is to determine the learning objectives. What are students expected to achieve as a result of taking the class? Many times this desired outcome is obvious, because you are teaching a class to prepare students to perform a certain job or skill. For example, if you were to develop a lesson plan for a class to train fire fighters to drive a fire engine, you would start by listing the job performance requirements for a fire engine driver. On many other occasions, however, the learning objectives are not that clear.

It is very difficult to develop a lesson plan when the learning objectives are not clearly stated. Many fire service instructors have been in the unhappy position of being told to teach a certain class, such as one dealing with workplace diversity or safety, without clear direction on the intended learning objectives. Although the person requesting the class may have a general idea of what the class is intended to accomplish, he or she may not know the specific learning objectives that the Fire Service Instructor II needs to develop a lesson plan.

For example, the Fire Chief may want to improve fire fighter safety through training. Unless given specific learning objectives, the Fire Service Instructor II cannot develop a lesson plan to “improve fire fighter safety.” When placed in this position, the Fire Service Instructor II should attempt to clarify the Fire Chief’s vision of improving fire fighter safety. Would

he like all fire fighters to understand the chain of events that leads to an accident and to know how to break that chain so that an accident is avoided? A learning objective can be written to achieve that goal. Does the Fire Chief expect all fire fighters to don their structural firefighting protective equipment properly within a time limit? A learning objective can be written to achieve that goal, too. Whenever you are asked to develop a lesson plan for a class, start by clarifying the intended outcome of the class with the person requesting the class.

■ Learning Objectives

Once the Fire Service Instructor II has a clear outcome for a class, he or she should develop the learning objectives for the class. As described earlier in this chapter, learning objectives can be written utilizing the ABCD method.

Audience

The audience should describe the students who will take the class. If the lesson plan is being developed specifically for a certain audience, the learning objectives should be written to indicate that fact. For example, if a Fire Service Instructor II is writing a lesson plan for a driver training class, the audience would be described as “the driver trainee” or “the driver candidate.” Both of these terms indicate that the audience consists of individuals who are learning to be drivers. If the audience is not specifically known or is a mixed audience, the audience part of the learning objective could be written more generically, such as “the fire fighter” or even “the student.”

Behavior

As described earlier, the behavior part of the learning objective should be specified using a clearly measurable action word, which allows the evaluation of the student’s achievement of the learning objective. Another important consideration is the level to which a student will achieve the learning objective. This level is most often determined using Bloom’s Taxonomy (*Taxonomy of Educational Objectives*, 1965), a method to identify levels of learning within the cognitive domain. For the fire service, the three lowest levels are commonly used when developing learning objectives. In order of simple to most difficult, these levels are knowledge, comprehension, and application:

- *Knowledge* is simply remembering facts, definitions, numbers, and other items.
- *Comprehension* is displayed when students clarify or summarize important points.
- *Application* is the ability to solve problems or apply the information learned in situations.

To use this method, a Fire Service Instructor II must determine which level within the cognitive domain is the appropriate level for the student to achieve for the lesson plan. For example, if a Fire Service Instructor II is developing objectives for a class on portable extinguishers, the following objectives could be written for each level:

- *Knowledge*: “The fire fighter trainee will identify the four steps of the PASS method of portable extinguisher

application.” For this objective, the student simply needs to memorize and repeat back the four steps of pull, aim, squeeze, and sweep. Achievement of this very simple knowledge-based objective is easily evaluated with a multiple-choice or fill-in-the-blank question.

- **Comprehension:** “The fire fighter trainee will explain the advantages and disadvantages of using a dry-chemical extinguisher for a Class A fire.” This objective requires the student to first identify the advantages and disadvantages of a dry-chemical extinguisher and then select and summarize those that apply to use of such an extinguisher on a Class A fire. This higher-level objective may be evaluated by a multiple-choice question but is better evaluated with a short-answer-type questions.
- **Application:** “The fire fighter trainee, given a portable fire extinguisher scenario, shall identify the correct type of extinguisher and demonstrate the method for using it to extinguish the fire.” This is the highest level of objective because it requires the student to recall several pieces of information and apply them correctly based on the situation. This type of objective is often evaluated with scenario-based questions that may be answered with multiple-choice or short answers.

There is no one correct format for determining which level or how many learning objectives should be written for a lesson plan. Typically, a lesson plan will contain knowledge-based learning objectives to ensure that students learn all of the facts and definitions within the class. Comprehension objectives are then used to ensure that students can summarize or clarify the material. Finally, application objectives are used to ensure that the student can actually use the information learned in the lesson.

Converting Job Performance Requirements into Learning Objectives

Often, a Fire Service Instructor II needs to develop learning objectives to meet [job performance requirements \(JPRs\)](#) listed in an NFPA professional qualification standard; a JPR describes a specific job task, lists the items necessary to complete the task, and defines measurable or observable outcomes and evaluation areas for the specific task. Matching of learning objectives to JPRs occurs when a lesson plan is being developed to meet the professional qualifications for a position such as Fire Officer, Fire Instructor, or Fire Fighter. The JPRs listed in the NFPA standards of professional qualifica-

tions are not learning objectives per se, but learning objectives can be created based on the JPRs. Each NFPA professional qualification standard has an annex section that explains the process of converting a JPR into an instructional objective, including examples of how to do so [FIGURE 6.4](#). By following this format, a Fire Service Instructor II will be able to develop learning objectives for a lesson plan to meet the professional qualifications for NFPA standards.

Lesson Outline

After determining the performance outcomes and writing the learning objectives for the lesson plan, the next step for the Fire Service Instructor II is to develop the lesson outline [FIGURE 6.5](#). The lesson outline is the main body of the lesson plan and is the major component of the presentation step in the four-step method of instruction.

One method for creating a lesson outline involves brainstorming the topics to be covered and then arranging them in a logical order. Begin listing all of the information that needs to be taught to achieve the learning objectives. Which terms do students need to learn? Which concepts must be presented? Which skills need to be practiced? Which stories or real-life examples would demonstrate the need to learn this material?

Once you have listed all of the topics that should be covered in the lesson outline, organize them into presentation and application sections. Arrange the listed topics you will lecture on in a logical and orderly fashion in the presentation section. Topics should be presented in order starting from the basic and then moving on to the more complex. Ensure that the topics flow together and that the presentation does not contain any gaps that might confuse a student. If you identify a gap, you may need to create a new topic to bridge it.

In the application section, list the topics that require students to apply the information learned in the presentation section. Most often the topics in the application section will be activities or skills practice. If the lesson does not include actual hands-on activities, the application should at least consist of discussion points for you to talk about with the students to ensure the information in the lecture was learned and can be applied.

Many lesson outlines utilize a two-column format. The first column contains the actual outline of the material to be taught. If this lesson outline is to be used by experienced fire service instructors, a simple outline of the material may suffice. For less experienced fire service instructors or to ensure consistency between multiple instructors, the outline may be more detailed. The second column of the lesson outline contains comments or suggestions intended to help a fire service instructor understand the lesson outline. It is also a good practice to indicate in the second column which learning objectives are being achieved during the presentation or application sections. This information is especially helpful when you are developing a lesson plan to teach an established curriculum that uses a numbering system to identify learning objectives.

Safety Tip

When writing objectives in an application format, be sure to address any safety issues required to meet the objective.

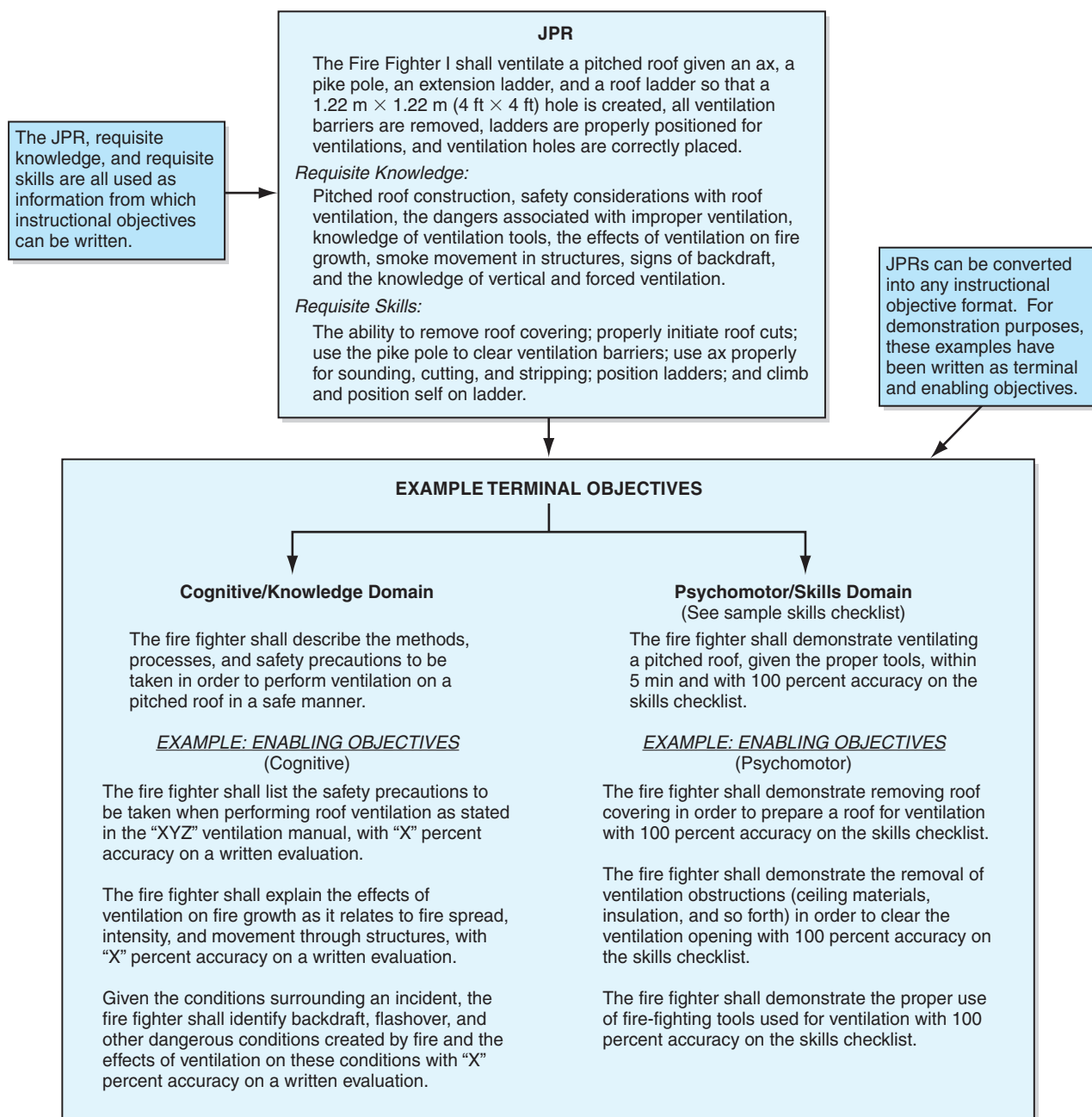


FIGURE 6.4 Converting job performance requirements into instructional objectives.

Instructional Materials

Once the lesson outline is developed, all instructional materials needed to deliver instruction should be identified and listed in the lesson plan. This list should be specific so that the exact instructional aid can be identified. For example, if the lesson plan is a fire safety lesson for children that incorporates

a DVD as an instructional aid, just listing "Fire Safety Video" in the lesson plan does not provide enough information for the fire service instructor. Instead, give the exact title of the video, such as "Sparky Says: Join My Fire Safety Club," by the NFPA. This information will allow any fire service instructor who uses the lesson plan to obtain the correct instructional aid.

Pre-Lecture (Preparation Step)

I. You Are the Fire Fighter

Time: 5 Minutes

Small Group Activity/Discussion

Use this activity to motivate students to learn the knowledge and skills needed to understand the history of the fire service and how it functions today.

Purpose

To allow students an opportunity to explore the significance and concerns associated with the history and present operation of the fire service.

Instructor Directions

1. Direct students to read the “You Are the Fire Fighter” scenario found in the beginning of Chapter 1.
2. You may assign students to a partner or a group. Direct them to review the discussion questions at the end of the scenario and prepare a response to each question. Facilitate a class dialogue centered on the discussion questions.
3. You may also assign this as an individual activity and ask students to turn in their comments on a separate piece of paper.

Lecture (Presentation Step)

I. Introduction

Time: 5 Minutes

Slides: 1–6

Level: Fire Fighter I

Lecture/Discussion

- A. Training to become a fire fighter is not easy.
 1. The work is physically and mentally challenging.
 2. Firefighting is more complex than most people imagine.
- B. Fire fighter training will expand your understanding of fire suppression.
 1. The new fire fighter must understand the roots of the fire service, how it has developed, and the fire service “culture” in order to excel.
 2. This course equips fire fighters to continue a centuries-old tradition of preserving lives and property threatened by fire.

II. Fire Fighter Guidelines

Time: 5 Minutes

Slide: 7

Level: Fire Fighter I

Lecture/Discussion

- A. Be safe.
 1. Safety should always be uppermost in your mind.
- B. Follow orders.
 1. If you follow orders, you will become a dependable member of the department.
- C. Work as a team.
 1. Firefighting requires the coordinated efforts of each department member.
- D. Think!
 1. Lives will depend on the choices you make.
- E. Follow the golden rule.
 1. Treat each person, patient, or victim as an important person.

III. Fire Fighter Qualifications

Time: 30 Minutes

Slides: 8–10

Level: Fire Fighter I

Lecture/Discussion

A. Age requirements

1. Most career fire departments require that candidates be between the ages of 18 and 21.

B. Education requirements

1. Most career fire departments require a minimum of a high school diploma or equivalent.

C. Medical requirements

1. Medical evaluations are often required before training can begin.
2. Medical requirements for fire fighters are specified in NFPA 1582, *Standard on Comprehensive Operational Medical Program for Fire Departments*.

D. Physical fitness requirements

1. Physical fitness requirements are established to ensure that fire fighters have the strength and stamina needed to perform the tasks associated with firefighting and emergency operations.

E. Emergency medical requirements

1. Many departments require fire fighters to become certified at the first responder, Emergency Medical Technician (EMT)–Basic, or higher levels.

IV. Roles and Responsibilities of the Fire Fighter I and Fire Fighter II

Time: 30 Minutes

Slides: 11–17

Level: Fire Fighter I and II

Lecture/Discussion

A. The roles and responsibilities for Fire Fighter I include:

1. Don and doff personal protective equipment properly.
2. Hoist hand tools using appropriate ropes and knots.
3. Understand and correctly apply appropriate communication protocols.
4. Use self-contained breathing apparatus (SCBA).
5. Respond on apparatus to an emergency scene.
6. Force entry into a structure.
7. Exit a hazardous area safely as a team.
8. Set up ground ladders safely and correctly.
9. Attack a passenger vehicle fire, an exterior Class A fire, and an interior structure fire.
10. Conduct search and rescue in a structure.
11. Perform ventilation of an involved structure.
12. Overhaul a fire scene.
13. Conserve property with salvage tools and equipment.
14. Connect a fire department engine to a water supply.
15. Extinguish incipient Class A, Class B, and Class C fires.
16. Illuminate an emergency scene.
17. Turn off utilities.
18. Perform fire safety surveys.
19. Clean and maintain equipment.
20. Present fire safety information to station visitors, community groups, or schools.

B. Additional roles and responsibilities for Fire Fighter II include:

1. Coordinate an interior attack line team.
2. Extinguish an ignitable liquid fire.
3. Control a flammable gas cylinder fire.

4. Protect evidence of fire cause and origin.
5. Assess and disentangle victims from motor vehicle accidents.
6. Assist special rescue team operations.
7. Perform annual service tests on fire hose.
8. Test the operability of and flow from a fire hydrant.
9. Fire fighters must also be prepared to assist visitors to the fire station and use the opportunity to discuss additional fire safety information.

V. Summary

Time: 5 Minutes

Slides: 51–53

Level: Fire Fighter I

Lecture/Discussion

- A. Remember the five guidelines: Be safe, follow orders, work as a team, think, and follow the golden rule.
- B. Fire fighter qualifications consider age, education, medical, and physical fitness, and emergency medical certifications.
- C. The roles and responsibilities of Fire Fighter I and Fire Fighter II vary.

Post-Lecture

I. Wrap-Up Activities (Application Step)

Time: 40 Minutes

Small Group Activity/Individual Activity/Discussion

A. Fire Fighter in Action

This activity is designed to assist the student in gaining a further understanding of the roles and responsibilities of the Fire Fighter I and II. The activity incorporates both critical thinking and the application of fire fighter knowledge.

Purpose

This activity allows students an opportunity to analyze a firefighting scenario and develop responses to critical thinking questions.

Instructor Directions

1. Direct students to read the “Fire Fighter in Action” scenario located in the Wrap-Up section at the end of Chapter 1.
2. Direct students to read and individually answer the quiz questions at the end of the scenario. Allow approximately 10 minutes for this part of the activity. Facilitate a class review and dialogue of the answers, allowing students to correct responses as needed. Use the answers noted below to assist in building this review. Allow approximately 10 minutes for this part of the activity.
3. You may also assign these as individual activities and ask students to turn in their comments on a separate piece of paper.
4. Direct students to read the “Near Miss Report.” Conduct a discussion that allows for feedback on this report. Allow 10–15 minutes for this activity.

Answers to Multiple Choice Questions

1. A, D
2. B
3. B
4. D

B. Technology Resources

This activity requires students to have access to the Internet. This may be accomplished through personal access, employer access, or through a local educational institution. Some community colleges, universities, or adult education centers may have classrooms with Internet capability that will allow for this activity to be completed in class. Check out local access points and encourage students to complete this activity as part of their ongoing reinforcement of firefighting knowledge and skills.

Purpose

To provide students an opportunity to reinforce chapter material through use of online Internet activities.

Instructor Directions

1. Use the Internet and go to **www.Fire.jpupub.com**. Follow the directions on the Web site to access the exercises for Chapter 1.
2. Review the chapter activities and take note of desired or correct student responses.
3. As time allows, conduct an in-class review of the Internet activities and provide feedback to students as needed.
4. Be sure to check the Web site before assigning these activities, as specific chapter-related activities may change from time to time.

II. Lesson Review (Evaluation Step)

Time: 15 Minutes

Discussion

Note: Facilitate the review of this lesson's major topics using the review questions as direct questions or overhead transparencies. Answers are found throughout this lesson plan.

- A. Name some of the physical fitness requirements established for firefighters.
- B. What requirements do the firefighter qualifications focus on?
- C. How do the roles and responsibilities of the Fire Fighter I and II differ?

III. Assignments

Time: 5 Minutes

Lecture

- A. Advise students to review materials for a quiz (determine date/time).
- B. Direct students to read the next chapter in *Fundamentals of Fire Fighter Skills* as listed in your syllabus (or reading assignment sheet) to prepare for the next class session.

Theory into Practice

A set of clear learning objectives, a thorough lesson outline, and a method of ensuring that the learning objectives are met should form the backbone of every course taught in the fire service. Proper construction of learning objectives will ensure that the course meets the identified needs of the students. Without clear learning objectives, however, courses may stray from their intended purpose. To ensure clear learning objectives, use the ABCD method during the creation process.

The lesson outline is a necessity to ensure that you cover the material required to meet the learning objectives. The lesson outline should flow logically to assist in student comprehension. Using the brainstorming technique will help guide your thought process in covering all relevant topics. Arranging topics in a logical sequence requires an understanding of the learning objectives. Once it is completed, run your lesson outline by a colleague to see if he or she follows your logical sequence. If your colleague is confused, then your students are also likely to be confused.

The last step to ensure success is to create an evaluation process to confirm that the learning objectives have been met. Without an evaluation process, there is no guarantee that a student has met the goals of the class.

Instructional materials may range from handouts to overhead projectors to the hoses used during a skills practice. Often the inclusion of one instructional aid creates a need for more instructional materials. For example, if a lesson plan lists a DVD as an instructional aid, the instructional materials would need to be revised to include a DVD player and projector. Ask the following types of questions to determine what you need:

- Are additional informational resources needed to present the learning objectives to students—for example, a handout describing your department's SOPs?
- Are supplies needed to make props or demonstrations?
- Is equipment needed for the activities or skills practice?
- Is equipment needed to ensure student safety?

Evaluation Plan

The evaluation plan is the final part of the lesson plan. Each part of the evaluation plan should be directly tied to one or more learning objectives. When writing the evaluation plan into the lesson plan, simply *describe* the evaluation plan—do not provide the actual evaluation. In other words, the lesson

plan could indicate that the evaluation plan is a 50-question multiple-choice test, but it should not list the actual test questions. The test questions should be a separate document that is securely kept and only available as needed to fire service instructors. When the evaluation plan lists skills performance tests, these documents should be included with the instructional materials and handed out to students so they can prepare for skills testing. This step is covered in Part IV of this text.

Modifying a Lesson Plan

A Fire Service Instructor II may modify lesson plans. Modifying a lesson plan occurs when a Fire Service Instructor II makes fundamental changes, such as revising the learning objectives. When these kinds of substantial changes to a lesson plan are made, the lesson plan should be completely revised, following the step-by-step process used to develop the original lesson plan. To ensure that the lesson plan is written to meet a new learning objective, follow through each step of the lesson plan development process and make the necessary changes in all sections of the lesson plan.

When modifying a lesson plan, always obtain necessary approval from the authority having jurisdiction. Even though a Fire Service Instructor II has the training to modify learning objectives, many times the change must be approved by a curriculum committee, a training officer, or the fire chief. Similarly, any lesson plan modification must comply with all agency policies and procedures. If a reference used to develop the lesson plan is updated, such as a department SOP or an NFPA standard, make sure that the reference cited in the lesson plan is current.

After modifying a lesson plan, retain a copy of the original lesson plan. This original must be kept to document the classes that were taught from that lesson plan. It can also be referred to when making future lesson plan modifications.

The fire service instructor greatly improves their ability to deliver training information to students by using a standard lesson plan format that incorporates the four step method of instruction. Consistency and accuracy of information must be relayed to varied audiences and in the event of unexpected emergency runs or other breaks that may occur during instruction, the lesson plan allows for you to pick up where you left off. Fellow instructors can use the same lesson plan and achieve similar outcomes. The lesson plan can be compared to an incident action plan as it identifies expected outcomes of a training session, resources available or needed, and provides a step-by-step measurable set of instruction material that brings a training session to a successful outcome. Existing or published lesson plans should be reviewed and modified to reflect your department procedures and practices. Utilization of fire service references and NFPA job performance requirements also provide content validity to the material being taught. Using a standard form for instruction ensures that the instructor covers many legal and ethical concerns relating to the delivery of training in the modern fire service.

Wrap-Up

■ Chief Concepts

- To provide quality instruction, use lesson plans with well-written and clearly defined learning objectives.
- A learning objective is a goal that is achieved through the attainment of a skill, knowledge, or both.
- The main components of a lesson plan are as follows:
 - Lesson title or topic
 - Level of instruction
 - Behavioral objectives, performance objectives, or learning outcomes
 - Instructional materials needed
 - Lesson outline
 - References/resources
 - Lesson summary
 - Assignment
- The four-step method of instruction is the process most commonly used for delivering fire service lesson plans. It includes these steps:
 - Preparation
 - Presentation
 - Application
 - Evaluation
- Preparing for instruction is very important. You may need to spend several hours preparing to teach a class, including reviewing the lesson plan, reserving classrooms and instructional aids, and purchasing materials.
- A Fire Service Instructor I can use a lesson plan to teach a class and may adapt the lesson plan to the local needs of the class.
- A Fire Service Instructor II can create a new lesson plan to teach a class and may modify an existing lesson plan.
- When a Fire Service Instructor II creates a lesson plan, the learning objectives must be identified. They then become the basis for the rest of the lesson plan.

■ Hot Terms

ABCD method Process for writing lesson plan objectives that includes four components: audience, behavior, condition, and degree.

Adapt To make fit (as for a specific use or situation).

Application step The third step of the four-step method of instruction, in which the student applies the information learned during the presentation step.

Assignment The part of the lesson plan that provides the student with opportunities for additional application or exploration of the lesson topic, often in the form of homework that is completed outside of the classroom.

Evaluation step The fourth step of the four-step method of instruction, in which the student is evaluated by the instructor.

Four-step method of instruction The most commonly used method of instruction in the fire service. The four steps are preparation, presentation, application, and evaluation.

Job performance requirement (JPR) A statement that describes a specific job task, lists the items necessary to complete the task, and defines measurable or observable outcomes and evaluation areas for the specific task.

Learning objective A goal that is achieved through the attainment of a skill, knowledge, or both, and that can be measured or observed.

Lesson outline The main body of the lesson plan. A chronological listing of the information presented in the lesson plan.

Lesson plan A detailed guide used by an instructor for preparing and delivering instruction.

Lesson summary The part of the lesson plan that briefly reviews the information from the presentation and application sections.

Lesson title or topic The part of the lesson plan that indicates the name or main subject of the lesson plan.

Level of instruction The part of the lesson plan that indicates the difficulty or appropriateness of the lesson for students.

Modify To make basic or fundamental changes.

Preparation step The first step of the four-step method of instruction, in which the instructor prepares to deliver the class and provides motivation for the students.

Prerequisite A condition that must be met before a student is allowed to receive the instruction contained within a lesson plan—often a certification, rank, or attendance of another class.

Presentation step The second step of the four-step method of instruction, in which the instructor delivers the class to the students.

Fire Service Instructor *in Action*



You are a Fire Service Instructor I who has been asked to teach an SCBA class to your department's new recruit class. The captain in charge of the training academy provides you with the lesson plan that was used during the last class. He asks you to review the lesson plan and let him know if you need anything before you teach the class in two weeks.

1. Which statement best describes your next actions?
 - A. Safely store the lesson plan away until the day of the class
 - B. Begin creating your own lesson plan and compare it to the one you were given
 - C. Review the lesson plan you were given and develop a timeline to prepare for the class
 - D. Tell the captain that a Fire Service Instructor I cannot teach this class
2. As you review the SCBA lesson plan, you notice that some of the learning objectives are no longer needed because of an equipment change. As a Fire Service Instructor I, what should you do?
 - A. Delete the unnecessary objectives from the lesson plan
 - B. Notify the captain, so a Fire Service Instructor II can modify the lesson plan
 - C. Teach the learning objectives anyway because they are in the lesson plan
 - D. Rewrite the learning objectives so they apply to the new equipment
3. The last class contained 20 recruits. The class you will teach will have 40 students. As a Fire Service Instructor I, you can adapt the lesson plan to accommodate the additional students.
 - A. True
 - B. False
4. Your department has a standard operating procedure for the use and maintenance of SCBA. Which of the following statements is true concerning the SOP and the lesson plan?
 - A. The lesson plan should never contradict the SOP.
 - B. The lesson plan may reference the SOP but you do not need to teach it.
 - C. The lesson plan should not include the SOP because students will learn it later.
 - D. The lesson plan should cover textbook material only, not SOPs.
5. As a Fire Service Instructor I preparing to teach this class, which of the following issues would you normally be responsible for?
 - A. Selecting the type of SCBA for your department
 - B. Establishing a budget for the class
 - C. Writing the exam questions
 - D. Reviewing and preparing audio/visual aids
6. Why would a less experienced fire service instructor have a more detailed lesson outline?
 - A. A less experienced fire service instructor should not have a more detailed lesson outline because it will be distracting.
 - B. A more detailed lesson plan will allow the fire service instructor to cover areas that are not part of the learning objectives.
 - C. The fire service instructor will have more basic knowledge about the topic, thus requiring less information in the lesson outline.
 - D. All lesson outlines should be the same regardless of the fire service instructor experience.
7. When reviewing a lesson plan, should you consider your personal style of presentation and adapt the plan to meet your style?
 - A. This is acceptable because the original fire service instructor will have incorporated his or her own personal style when developing the lesson plan.
 - B. This is acceptable because the original fire service instructor will have ensured that no personal style is reflected in the lesson plan.
 - C. This is not acceptable because the material should be about the students and not the fire service instructor.
 - D. This is not acceptable because fire service instructors do not have personal styles.