



TEACHERS' GUIDE **1** CHAPTER

**ACTIONS AND RULES OF
CONDUCTING FIREFIGHTING
AND RESCUE OPERATIONS**



Co-funded by
the European Union

WHAT YOU GET?

In this chapter you will find lesson plans and teaching aids to help you teach lessons concerning rules for conducting firefighting and rescue operations.

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PART 1

FIRES INSIDE

BUILDINGS

Lesson 1

Introductory issues

Students will be able to say what fire is and describe the stages of fire, explain how fires spread and identify special circumstances such as rollover, flashover and backdraft.

Lesson 2

Breaking the fire triangle

Students will understand the principles of fire suppression and learn various methods of removing heat, oxygen, and fuel to break the fire triangle.

Lesson 3

Interior fighting techniques

Students will learn various methods and techniques for fighting interior fires. They will discuss and learn strategies used by firefighters like direct attack, indirect attack, combination attack, fog attack, and modified methods.



INTRO

This part deals with fires in general. It opens with an explanation of 'fire' itself, its stages, ways of spreading, and accompanying phenomena. Then, it focuses on the principles of fire suppression and presents methods and techniques for fighting interior fires.

You will find here:



3 ready-to-use lesson plans (3x 45 min.) which follow a practical, step-by-step guide



Innovative teaching methods and techniques:

- open-ended questions
- flipped classroom
- brainstorming
- blended-learning
- cooperative learning
- problem-based learning (scenario-based teaching)



Ready-to use lesson resources:

- visual teaching aids: infographics, diagrams, photographs,
- interactive tools: QR codes, teaching/learning platforms (Padlet), links to educational sites, videos,
- real-life scenarios



Teaching aids supporting teaching/learning process during the lessons:

- PC / laptop,
- Internet access,
- projector & screen or interactive whiteboard,
- students' own devices (smartphones with QR code scanners and Internet access)



Key vocabulary

fire triangle, tetrahedron; fire elements; heat, oxygen, fuel; ignition, growth, full development, decay (of fire); conduction, convection, radiation; flashover, backdraft, rollover; indirect/direct attack, combination attack, fog attack



Learning objectives

Students will be able to say what fire is and describe the stages of fire, explain how fires spread, and identify special circumstances such as rollover, flashover, and backdraft.



Follow the steps

1

Introduction

The teacher tells the students that after the lesson they will understand the basic principles behind how fire starts, develops and spreads.

2

Study

1. **Welcome students** and introduce the topic and their learning goals for today.

**1 min.**

2. **Start with showing the graphic** of fire triangle/tetrahedron and asking students to discuss it . Use questions: What are the three/four essential elements required for fire to occur? What do the four sides of the fire triangle/tetrahedron symbolize? How does removing any of the essential elements extinguish the fire?

**3 min.**

fire
triangle/tetrahedron
graphics

3. **Discuss the concept of fire** (*What is fire?*) students were assigned to develop in the flipped classroom task. Go through open questions together, give feedback, explain problematic issues, evaluate their work.

**5 min.**

[download](#)
[instructions for](#)
[flipped classroom](#)

LESSON 1

FIRES INSIDE BUILDINGS. INTRODUCTORY ISSUES

PART 1 LESSON 1

4. Introduce the new material

Provide an overview of the stages of fire, explaining each stage in detail and its characteristics. Use visual aids – diagram, **images**, video.



10 min.



[download stages of
fire diagram](#)



[download stages of
fire infographic](#)



[show stages of fire
video](#)

3

Practice

1. **Engage students in a brainstorming session** about the ways fires can spread. Scaffold the questioning from easy to hard, starting with examples of **conduction** and **convection**, and gradually introducing **radiation**.



10 min.



Use the videos if possible. Monitor student performance through class discussions and individual responses.



<https://tiny.pl/c85cr>
[conduction](#)



<https://tiny.pl/c85c1>
[convection](#)



<https://tiny.pl/c85dm>
[radiation](#)

LESSON 1

FIRES INSIDE BUILDINGS. INTRODUCTORY ISSUES

PART 1

LESSON 1

2. Move on to exploring the three phenomena accompanying fires: **flashover**, **backdraft**, and **rollover**.

Divide students into three groups:

- F (flashover),
- B(backdraft),
- R(rollover),



14 min.

Let students explore the phenomena using the material in QR codes. When ready, students discuss the phenomena. Monitor students' performance through class discussions and individual responses.



<https://tiny.pl/dt3ks>

[flashover](#)



<https://tiny.pl/c85ft>

[blackdraft](#)



<https://tiny.pl/c85ft>

[rollover](#)

3. Conduct a quick review activity where students share one key point they learned from the lesson.



2 min.



Background notes

Flipped learning methodology is used in the first part of the lesson. Students were assigned to view the lecture ***What is fire?*** at home and answer the questions (TED-ed platform)



[download](#)
[visual](#)
[aids](#)

LESSON 2

FIRES INSIDE BUILDINGS. BREAKING THE FIRE TRIANGLE



Learning objectives

Students will understand the principles of fire suppression and learn various methods of removing heat, oxygen, and fuel to break the fire triangle.



Follow the steps

1

Introduction

You will be able to identify and apply methods to remove heat, oxygen, and fuel to break the fire triangle.

2

Study

1. **Welcome students** and introduce the topic and their learning goals for today



1 min.



2. **Begin the lesson** by reviewing the **fire triangle/tetrahedron** concept and its three / four elements: heat, oxygen, fuel, and chemical chain reaction.

Discuss the importance of removing any one of these elements to suppress and extinguish a fire.



5 min.

3. **Introduce new material** - extinguishing fire by:
 - a. removing heat
 - b. removing oxygen
 - c. removing fuel



17 min.

LESSON 2

FIRES INSIDE BUILDINGS. BREAKING THE FIRE TRIANGLE

Extinguishing fire by:

a. Removing heat

- explain different methods of removing heat from a fire, such as using water, foam, or specialized firefighting agents,
- discuss the importance of cooling the fire to prevent it from spreading,
- show images or videos demonstrating these techniques;



<https://tiny.pl/c4nh9>

**Methods of Fire
Extinguishing**



<https://tiny.pl/c4439>

**Decreasing
Temperature Using
Water During Fire
Fighting**

b. Removing oxygen

- discuss methods of removing oxygen from a fire, such as ventilation techniques, using positive pressure ventilation (PPV) fans, or creating smoke curtains,
- explain the importance of limiting the oxygen supply to control the fire and prevent flashovers or backdrafts;
- show images or videos demonstrating these techniques;



<https://tiny.pl/c4nqs>

Ventilation basics



<https://tiny.pl/c4nxf>

**Positive Pressure
Ventilation**



<https://tiny.pl/c4nmt>

Smoke Curtain Use

LESSON 2

FIRES INSIDE BUILDINGS. BREAKING THE FIRE TRIANGLE

c. Removing fuel

- explain different methods of removing fuel from a fire, such as removing flammable materials, shutting off gas or electricity, or using fire-resistant material,
- discuss the importance of removing or reducing the fuel source to prevent the fire from spreading,
- show images or videos demonstrating these techniques

3

Practice



Pair activity - fire scenarios

students analyze various fire scenarios and discuss the most appropriate methods to remove heat, oxygen, and fuel.



17 min.

Scaffold questioning by starting with easier examples and gradually increasing the complexity.



Monitor student performance by circulating the classroom and providing assistance when needed.

[download](#)
[fire](#)
[scenarios](#)



After class activity - fire safety plan

Assign students a task to be done at home where they have to design a **fire safety plan** for a specific location (e.g., a classroom, or a kitchen).

In their plan, they should identify potential fire hazards, suggest ways to remove heat, oxygen, and fuel, and describe emergency procedures.



4 min.

Encourage students to think critically and creatively.

LESSON 3

FIRES INSIDE BUILDINGS. INTERIOR FIGHTING TECHNIQUES

PART 1

LESSON 3



Learning objectives

Students will learn various methods and techniques for fighting interior fires.



Follow the steps

1

Introduction

Inform students that from this lesson they will learn various methods and techniques for fighting interior fires.

2

Study

1. Introduce briefly the topic and the learning goals for today
2. Begin the lesson by showing a video clip of firefighters in action, engaging in interior firefighting techniques.



5 min.



<https://tiny.pl/c4lbc>

Firefighter's bodycam shows battling housefire first-hand

3. Ask students the following question:

"What do you think are the key strategies and tactics used by firefighters when combating a fire inside a building?"
Discuss it.



LESSON 3

FIRES INSIDE BUILDINGS. INTERIOR FIGHTING TECHNIQUES

PART 1

LESSON 3

4. Introduce the new material:

using the combination of lecture, visual aids, and real-life examples explain the different methods and techniques used in interior fighting, including:



15 min.

- a. indirect attack
- b. direct attack
- c. combination attack
- d. fog attack
- e. modified methods



<https://tiny.pl/c4Iz6>

Video: types of attack



<https://tiny.pl/c4I3x>

Attack a structure fire using a direct, indirect, or combination attack



<https://tiny.pl/c4I3x>

Fog attack

3

Practice



1.Group activity

Students discuss the advantages and disadvantages of each method, including considerations for fire size, location, and building structure



10 min.

Then they add their ideas to the appropriate section on the Padlet board. Monitor student performance by circulating around the classroom and providing assistance when needed.



Summarize the advantages and disadvantages of the methods, in a short class discussion

<https://tiny.pl/c4ndl>
Padlet board

LESSON 3

FIRES INSIDE BUILDINGS. INTERIOR FIGHTING TECHNIQUES

PART 1

LESSON 3



2. Pair activity

Students analyze a series of fire scenarios and determine the appropriate method/methods of fire attack and explain their reasoning.

Encourage students to think critically and creatively.



14 min.



[Download](#)
[fire scenarios](#)

PART 2

FIRES OF FARMLAND, WASTELAND AND WOODLAND

Lesson 1

Ground cover fires and wildfire suppression. Part 1

Students will learn how to recognize, identify, and understand wildfires and the techniques used to manage them.

Lesson 2

Ground cover fires and wildfire suppression. Part 2

Students will use the knowledge they obtained in a series of activities performed during Lesson 1. You will get handouts, activity sheets and instructions to work with.



INTRO

The subchapter is devoted to ground cover fires, the tactics and strategies that are used to manage wildfires.

You will find here:



2 ready-to-use lesson plans (2 x 45 min.) which follow a practical, step-by-step guide for a teacher.



Innovative teaching methods and techniques:

- open-ended questions discussion,
- blended learning,
- webquest,
- jigsaw cooperative learning,
- peer teaching,
- edutainment



Ready-to use lesson resources:

- interactive tools: QR codes, teaching/learning platforms (Wordwall), links to educational sites, videos, quiz,
- lesson tasks teacher and student instructions.



Teaching aids supporting teaching/learning process during the lessons:

- PCs / laptops for each team,
- Internet access,
- projector & screen or interactive whiteboard,
- students' own devices (smartphones with QR code scanners and Internet access).



Key vocabulary

ground cover fires, wildfire, bushfire; fire behaviour, fuel, weather, topography; ground fire, surface fire, crown fire; parts of a ground cover fire: head, finders, perimeter, heel, flanks, island, slopover; size-up, initial attack, control line, burnout, backburn, flanking, hotspotting, knocking down, cold trailing, aerial attack, mop-up

LESSON 1

GROUND COVER FIRE AND WILDFIRE SUPPRESSION PART 1

PART 2 LESSON 1



Learning objectives

Students will be able to recognize, identify, and understand wildfires and techniques used to manage them.



Follow the steps

1

Introduction

Inform students that they will learn some facts about wildfires and techniques used to get them under control.

2

Study

1. Introduce briefly the topic and the learning goals for today
2. Begin the lesson with presenting the video showing some people driving through a wildfire. discuss the situation paying attention to accompanying feelings, stress signs, etc.



5 min.



<https://tiny.pl/c4lbc>

Fire Science, ground cover fire

3. Move on to the **jigsaw cooperative learning task**

Part 1. Explain the technique, and follow the instructions in the handout. Let the students collect the necessary material.



35 min.

LESSON 1

GROUND COVER FIRE AND WILDFIRE SUPPRESSION PART 1

PART 2 LESSON 1



[Download activity instructions](#)

[I.2_lesson1_jigsaw_main instructions](#)

Provide each group with the instructions and resources



[Team A](#)



[Team B](#)



[Team C](#)



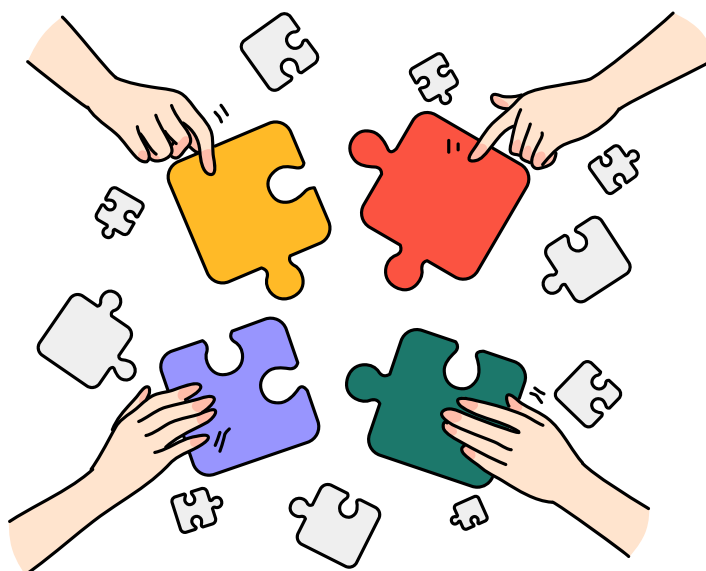
[Team D](#)

4. Feedback round.

After students complete the activity, discuss its results, focusing on difficulties they have and quickly giving feedback to the learners on how well they completed the task



4 min.



Continue the topic in the next lesson





Learning objectives

Continuation of the topic and activities from Lesson 1



Continue the topic according to the following following steps

5. Assemble the teams and let the students compare, complement and analyse the information they've collected.



3 min.

6. When all teams are ready, reassemble the class in groups - now you have 4-5 groups with one student from each team.



25 min.

Give your students further instructions about their tasks and let them teach one another.



Observe their work.

[Download team instruction](#)

7. Having each group complete the task, give feedback, and evaluate students work.

3

Practice

Let the students practice what they've learned about ground cover fires and the tactics and strategies used to manage wildfires in a quiz.



12 min.



Individual activity:

Students answer 10 multiple-choice questions. There is no time limit to answer the questions.



[Ground cover fires and wildfire suppression](#)

[QUIZ](#)

PART 3

NATURAL HAZARDS AND DISASTERS

Lesson 1

Flood response

Students will be provided with some basic knowledge of flooding and fire services flood operations.



"Flooding in Cedar Rapids, IA" by U.S. Geological Survey is marked with CC0 1.0.

INTRO

The part focuses on the world's most common natural disaster—floods, one of the consequences of climate. It opens with some basic facts concerning floods, potential dangers, and their impact on communities. Then, it focuses on fire services flood operations.

You will find here:



1 ready-to-use lesson plan (1 x 45 min.) which follows a practical, step-by-step guide for a teacher.



Innovative teaching methods and techniques:

- brainstorming,
- blended learning,
- interactive teaching/learning,



Ready-to use lesson resources:

- visual teaching aids: interactive presentation (Canva),
- interactive tools: QR codes, brainstorming tool (Mentimeter), links to educational sites, videos,
- lesson tasks - teacher and student instructions.



Teaching aids supporting teaching/learning process during the lessons:

- PC / laptop,
- Internet access,
- projector & screen or interactive whiteboard,
- students' own devices (smartphones with QR code scanners and Internet access).



Key vocabulary

flood protection infrastructure: levee, diversion canal, dam; levee overtopping (overflowing), levee leaking (seepage), levee breaching; levee patrolling, sandbagging



Learning objectives

Students will be provided with some basic knowledge of flooding and fire services flood operations.



Follow the steps

1

Introduction

Inform students that after this class they will be able to demonstrate knowledge of flooding and fire services flood operations

2

Study

1. **Introduce briefly the topic** and the learning goals for today

2. To engage students, **show them a video of enormous floods** in parts of Greece, Turkey, Bulgaria, and Spain in 2023. Ask students to share any prior knowledge or personal experiences related to floods.



3 min.



<https://tiny.pl/cl8mj>

**Deadly Flooding Follows Record
Wildfires Across Europe:**



5 min.

Brainstorm some ideas concerning potential dangers and the impact floods have on communities. You can use Mentimeter or any other online tool to engage students to suggest their ideas.



Brainstorming activity



**Download
instructions**

LESSON 1

FLOOD RESPONSE

PART 3

LESSON 1

4. Provide students with **basic information on floods** and fire service responsibilities. Use supporting interactive presentation.



20-25 min.



use QR code to
open
presentation



Download
presentation
in pdf

The first part of the presentation deals with **flood protection infrastructure**: it explains how it works (video & quiz – in a separate file included in the presentation) and shows the damage caused by flooding (videos)

Then students learn about **fire service response**: organizing operation area (diagram), setting operation assignments – patrolling (students read a text and answer quiz questions in the presentation)

Finally, the presentation shows some **basic after-flood activities** done by the fire service.

5. Summarize the main points covered in the lesson, emphasizing the crucial role of fire services in flood response. Ask students to share one thing they learned or found interesting during the lesson.



Download
quiz



Download
text



3 min.

3

Practice

Let the students use their knowledge of floods and **create a leaflet** for the public showing fire service actions during floods.



8 min.



After class activity

After a short discussion in class, students do the task as homework and present their work back in class.

PART 4

HUMAN-CAUSED HAZARDS

Lesson 1

Response to traffic accidents.

Students will be provided basic knowledge and instructions to follow while responding to traffic accidents.



Lesson 2

Structural collapse rescue

Students will know fire service response to and operations during a structural collapse



INTRO

The part deals with human-caused disasters in general. It opens with traffic accidents and basic procedures to be followed in response to them. Then, it moves on to structural collapses – their types and causes, and finally, it focuses on safety procedures for rescuing trapped individuals.

You will find here:



2 ready-to-use lesson plan (2 x 45 min.) which follow a practical, step-by-step guide for a teacher.



Innovative teaching methods and techniques:

- open-ended questions discussion,
- brainstorming,
- blended learning,
- interactive teaching/learning,
- edutainment,
- cooperative learning,
- problem-based learning (scenario-based teaching).



Ready-to use lesson resources:

- visual teaching aids: statistics, interactive mind-map,
- interactive tools: QR codes, teaching/learning platform (Quizizz, Padlet), links to educational sites, videos



Teaching aids supporting teaching/learning process during the lessons:

- PC / laptop for each team,
- Internet access,
- projector & screen or interactive whiteboard,
- sticky notes,
- tape,
- students' own devices (smartphones with QR code scanners and Internet access),
- wall grid.



Key vocabulary

accident site, preliminary survey, inner/outer circle survey, extrication' V-shape (frame)/A-frame/pancake/lean-to collapse, REPEAT procedure





Learning objectives

Students will be provided with some basic knowledge and instruction to follow while responding to traffic accidents.



Follow the steps

1

Introduction

Welcome students and inform them that after the lesson they will be able to demonstrate knowledge on flooding and fire services flood operations.

2

Study

1. **Introduce briefly the topic** and the learning goals for today



2. To engage students, **show them a video** 'Road safety: 1 person killed every 24 seconds' and some statistics concerning road accidents.



4 min.

Use the website <https://extranet.who.int/>



<https://tiny.pl/c4x3z>

'Road safety: 1 person killed every 24 seconds'



<https://tiny.pl/dp62x>

Deaths on the Roads ticker (WHO)

Ask if it is important to study traffic accident statistics and let them identify accident causes.

While discussing, showing *Deaths on the Roads ticker (WHO)* on the site mentioned above to make them aware of the problem and the necessity to respond to road accidents as fast as possible.

3. Provide students with **basic procedures** to be followed in response to a traffic accident. Use a supporting **interactive mind map**.

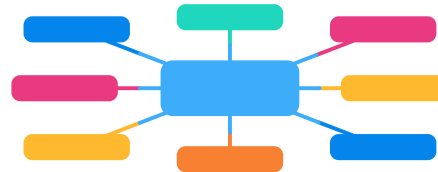


20-25 min.



<https://tiny.pl/cnc3x>

Mind map link



Use a presentation mode and **show the operation structure** without elaborating on it.

Then share the link with students and **let them work on the details**. They read and analyze the notes to the entries and make notes.

Monitor students' work

4. **Summarize** the main points covered in the mind map material



2 min.

3

Practice

1. Let the students use the knowledge of rescue operations in traffic accidents and



9 min.

Use the **quiz "Road Traffic Accident Response"** at Quizizz Learning Platform.



<https://tiny.pl/c4m9c>

Quiz "Road Traffic Accident Response"



[Download instructions](#)

2. **Feedback round**. After students finish the quiz, use the report to discuss their results, eliciting the right answers and quickly giving feedback to the learners on how well they completed the task.



Learning objectives

Students will know fire service response to and operations during a structural collapse



Follow the steps

1

Introduction

Welcome students and inform them that after the class they will know and understand the different types and causes of structural collapses, demonstrate knowledge of safety procedures for rescuing trapped individuals

2

Study

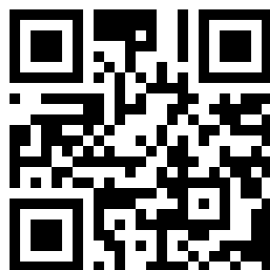
1. **Introduce briefly the topic** and the learning goals for today



2. To engage students and capture their interest, start the lesson by showing them a video clip of 'World Trade Center' movie – collapse scene.



5-7 min.



<https://tiny.pl/c4t5>

'World Trade Center' movie
– collapse scene: link

After watching the video, **ask students:**

"What challenges do you think firefighters face when responding to a structural collapse emergency?"



LESSON 2

STRUCTURAL COLLAPSE RESCUE

PART 4

LESSON 2

3. Provide directions about the '**Collapsed Structures Rescue Scavenger Hunt**' by walking students through the research scavenger hunt worksheet.



5 min.

Answer student questions about the worksheet and task.

Divide students into groups

Recommendation:

- aim for groups of no more than 3;
- distribute students of different skill levels across various groups.



[Download instructions](#)

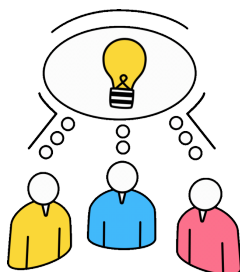


[Download worksheet for students](#)

4. **Group work time:**

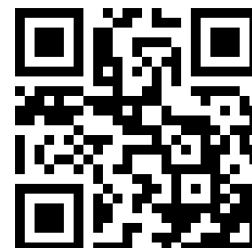
Students work in groups to answer the questions in the worksheet.

Feedback is conducted during the game by monitoring difficult questions/tasks.



<https://tiny.pl/c4cxv>

[Padlet Link](#)



3

Practice



7-9 min.

Exit Tickets

Distribute exit tickets to students at the end of the lesson. Ask them to write down one thing they learned from the scavenger hunt and one question they still have. This will give you valuable feedback on their understanding and allow you to address any lingering misconceptions or uncertainties in future lessons.

PART 5

EVACUATION OF PEOPLE AND LIVESTOCK

Lesson 1

Techniques for evacuating people from a danger zone.

Students will be able to recognize, identify, and understand the techniques to be applied to casualties



Lesson 2

Practicing techniques of evacuating people without the use of specialized equipment

Students will be able to understand, perform and practise rescue techniques to be applied to casualties.



Lesson 3

Livestock rescue

Students will be provided with some basic knowledge on handling livestock in fire rescue operations without using any technical equipment.



INTRO

The part deals with the issue of people and livestock evacuation. It starts with explaining the basic procedure of people evacuation and the most common techniques of moving, lifting, and transporting casualties. Then, it emphasizes a practical 'hands-on' approach to the evacuation techniques and finally moves on to handling livestock during a fire evacuation.

You will find here:



3 ready-to-use lesson plan (3 x 45 min.) which follow a practical, step-by-step guide for a teacher.



Innovative teaching methods and techniques:

- open-ended questions discussion,
- blended learning,
- interactive teaching/learning,
- cooperative learning,
- edutainment,
- brainstorming,



Ready-to use lesson resources:

- visual teaching aids: presentation (Canva),
- interactive tools: QR codes, teaching/learning platforms (Quizizz, Wordwall), brainstorming tool (Mentimeter), links to educational sites, videos,
- lesson tasks - teacher and student instructions.



Teaching aids supporting teaching/learning process during the lessons:

- PC / laptop,
- Internet access,
- projector & screen or interactive whiteboard,
- students' own devices (smartphones with QR code scanners and Internet access).



Key vocabulary

rescue, communication routes; walking assist, cradle/piggy back/backpack strap/2-4 handed seat/chair/extremity carry, fireman lift and carry, supine/prone position, stretcher; veterinary assistance.



Students will be able to recognize, identify, and understand the techniques to be applied to casualties

1

Introduction

Welcome students and inform them that they will learn about the basic procedure of people evacuation and how to rescue casualties using the most common techniques of moving, lifting and transporting them.

2

Study

1. **Introduce briefly the topic for today** and the learning goals for today



2. Start the lesson by presenting the video of firefighters evacuating residents from a burning building in eastern Ukraine, concentrating on the difficulties of the operation (dense smoke, no light, difficulties breathing, etc).



5 min.



<https://tiny.pl/cj6cm>

**Firefighters evacuate
residents from a burning
building in eastern Ukraine**

3. Introduce the basic rules for evacuation:

- start with rescue reconnaissance
- move on to decision-making and
- general procedure while dealing with casualties



7-9 min

Use **supporting presentation** if you want



LESSON 1

TECHNIQUES FOR EVACUATING PEOPLE FROM A DANGER ZONE

PART 5 LESSON 1

4. Move on to techniques of moving, lifting and transporting casualties.



15-12 min



Group activity:

students recognize and name some rescue techniques.

Organize the class in threes/fours, and make sure each group has a smartphone with Internet access and a QR code reader. Then distribute the handouts of the task to each student and moderate teamwork.



[Download activity file](#)

5. Feedback round

After students complete the activity, discuss its results, elicit the right answers, and quickly give feedback to the learners on how well they completed the task



5 min.

Make short evaluative comments such as 'Good!' or 'Well done!' or correct errors.

6. Check the progress



Pair activity:

Students answer the questions concerning rescue techniques.

Give out a 'Check your progress' sheet to each pair. When ready with the answers, ask each pair to provide one of the answers, comment/evaluate it.



5 min.



[Download activity file](#)

3

Practice

Let the students practise what they've learnt about the rescue techniques.



6 min



Group activity:

Each group chooses one of the techniques, watches the videos represented by QR codes from the previous group activity carefully, and performs the techniques.

LESSON 2

PART 5

LESSON 2

PRACTISING TECHNIQUES OF EVACUATING PEOPLE WITHOUT THE USE OF SPECIALIZED EQUIPMENT



Students will be able to understand, perform, and practice rescue techniques to be applied to casualties.

1

Introduction

Welcome students and inform them that today they will learn how to perform common techniques of moving, lifting and transporting casualties and practice them.

2

Study

1. **Introduce briefly the topic for today** and the learning goals for today



2. Begin the lesson with revising some techniques of moving, lifting and transporting casualties students got to know during the previous lesson.



10 min.

Use the quiz ***"Guess the rescue technique"*** at Quizizz Learning Platform.



[link](#)

"Guess the rescue technique"



[Download](#)
[quiz instructions](#)
[file](#)

3. Feedback round

After students finish the quiz, use the report to discuss their results, eliciting the right answers and quickly giving feedback to the learners on how well they completed the task.



4 min.

LESSON 2

PRACTISING TECHNIQUES OF EVACUATING PEOPLE WITHOUT THE USE OF SPECIALIZED EQUIPMENT

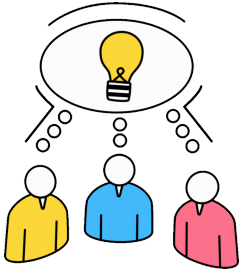
PART 5 LESSON 2

3

Practice



25 min.



Let the students practise rescue techniques

Group activity:

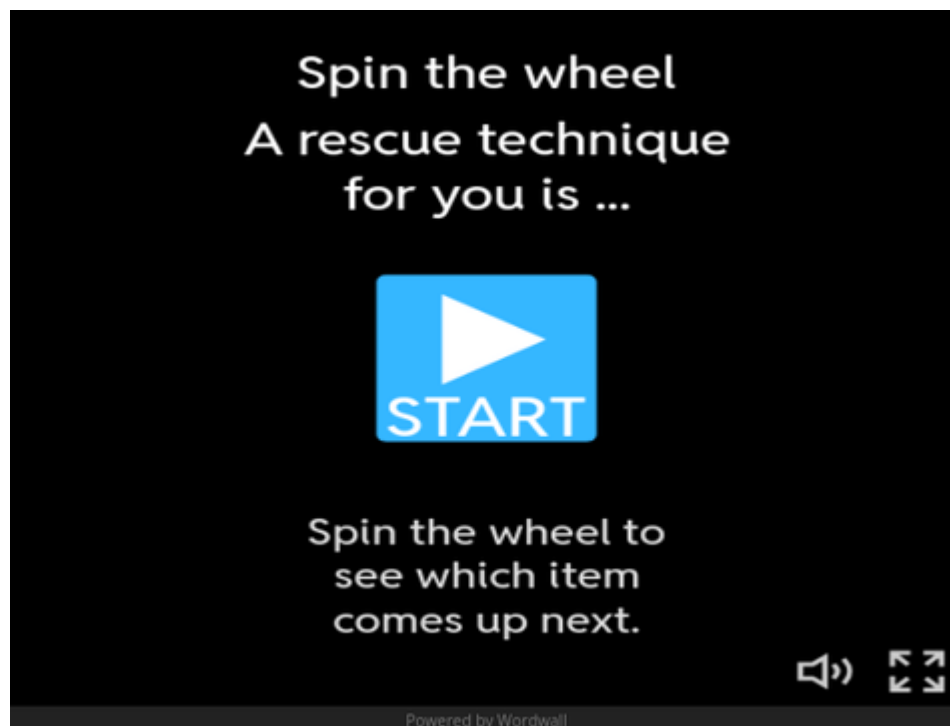
Rescue techniques running race.



[Wordwall link](#)



[Download instruction](#)





Students will be provided with some basic knowledge on handling livestock in fire rescue operations without using any technical equipment.

1

Introduction

Welcome students and inform them that after the class they will be able to demonstrate knowledge and skills in handling livestock during a fire evacuation.

2

Study

1. **Introduce briefly the topic for today** and the learning goals for today's class.



2. To engage students, show them a video or pictures of real-life situations where livestock were successfully evacuated during a fire



3 min.

<https://bit.ly/3s70HwH>

Dramatic video shows officers saving horse trapped in fire



3. **Brainstorm** some ideas concerning difficulties firefighters encounter when evacuating livestock.



8 min.

You can **use Mentimeter** or any other online tool to engage students to suggest their ideas.

Mentimeter link:
<https://www.mentimeter.com/>



Download instruction

LESSON 3

LIVESTOCK RESCUE

PART 5

LESSON 3

4. Provide students with some **basic tips on handling livestock** with no technical equipment – use supporting presentation if you want.



12 min.



click link for Canva
[supporting presentation](#)

or
[use presentation in pdf file](#)



[Download presentation](#)

5. **Sum up the main points** covered in the lesson, emphasizing the importance of proper livestock handling during a fire evacuation.



5 min.

Ask students to share one thing they learned or found interesting during the lesson.

3

Practice

1. Let the students check their knowledge and skills in handling livestock during a fire evacuation



25 min.

Use the quiz
[“Evacuation of livestock”](#)
at
Quizizz Learning Platform.



[Download instruction](#)

2. Feedback round. After students finish the game, discuss their performance and quickly give feedback to the students on how well they completed the task.



5 min.

PART 6

MISSING PEOPLE.

GROUND SEARCHING

OPERATIONS

Lesson 1

Searching investigation and SAR operation

Students will be able to recognize, identify, and understand the stages of search and rescue (SAR) operations and methods used while searching for people who have gone missing



Lesson 2

Trauma assessment and the MARCH procedure

Students will be able to demonstrate the steps of the MARCH procedure for assessing a patient with trauma.



Lesson 3

Applying the MARCH procedure to trauma person assessment.

Students will be able to apply knowledge of trauma person assessment MARCH procedure to analyze and prioritize injuries in simulated emergency scenarios.



INTRO

The part deals with the issue of search and rescue (SAR) operations. It starts with an explanation of the stages of search and rescue (SAR) operations and methods used while searching for people gone missing. Then, it focuses on the steps of the MARCH procedure used to assess a rescued patient with trauma. The final part is devoted to analyzing and prioritizing injuries in simulated emergency scenarios.

You will find here:



3 ready-to-use lesson plan (3 x 45 min.) which follow a practical, step-by-step guide for a teacher.



Innovative teaching methods and techniques:

- flipped classroom,
- brainstorming,
- blended learning,
- cooperative learning,
- problem-based learning (scenario-based teaching),
- edutainment.



Ready-to use lesson resources:

- interactive tools: teaching/learning platforms (JeopardyLabs), links to educational sites, videos,
- real-life scenarios.



Teaching aids supporting teaching/learning process during the lessons:

- PC / laptop,
- Internet access,
- projector & screen or interactive whiteboard,
- students' own devices (smartphones with QR code scanners and Internet access).



Key vocabulary

lost person, Search And Rescue (SAR), subject profile, lost person behaviour, risk assessment, dog search, tracking, fast search troop, 'leaf' method, wagon wheel method, Initial Planning Point (IPP), Last Known Position (LKP), Probability of Area (POA), Probability of Detection (POD)



Students will be able to recognize, identify, and understand the stages of search and rescue (SAR) operations and methods used while searching for people gone missing.

1

Introduction

Welcome students and tell them that they will learn what the basic stages of SAR operations are and what methods and techniques are used in SAR operations.

2

Study

1. **Introduce briefly the topic for today** and the learning goals for today's class.



2. Begin the lesson by presenting an officer's bodycam video showing the final moments of an intense search for a missing senior citizen.



5 min.

<https://tiny.pl/c8cxr>

Bodycam video shows K-9 officer finding missing persons



Discuss it. Ask the question:

What is the most important learning to be drawn from the video?

Elicit the answers, e.g. the importance of teamwork, communication, and perseverance in a challenging situation.

3. Flipped classroom task

Ask students to analyze the course material ('Stages of search and rescue (SAR) operations') and create a mind map relating to the material).



10 min.

Re-introduce and discuss the basic stages of SAR operations using mind maps prepared by students

Also, **pay attention to different methods** of searching for missing people.

Give feedback, explain problematic issues, and **evaluate** their work.



[Download instruction](#)

3

Practice

1. Let the students practice what they've learnt about SAR operations and searching techniques.



Group activity:

Divide students into small groups and provide them with **case scenarios** of missing people, an **initial lost person questionnaire**, and a **search urgency assessment sheet**. Using the collected information, students discuss and plan a search and rescue operation, considering the different stages and methods



25 min.



[Download case scenarios](#)



[Download initial lost person questionnaire](#)



[Download search urgency assessment sheet](#)

Scaffold questioning.

Start with easier questions and gradually progress to more challenging ones, i.e.:



- **What stage comes first in a search and rescue operation?**
- **Which method would be most effective in a densely wooded area?**



[Download presentation](#)

2. Conduct a brief **class discussion** to summarize the key points covered in the lesson. Ask students to share one important takeaway from the lesson and how it has changed their perception of search and rescue operations.



4-5 min.

LESSON 2

TRAUMA ASSESSMENT AND THE MARCH PROCEDURE

PART 6 LESSON 2



Students will be able to demonstrate the steps of the MARCH procedure for assessing a patient with trauma.

1

Introduction

Inform students that they will learn the importance of a trauma person assessment in emergency medical situations as a part of SAR response, understand the MARCH procedure, and apply it in assessing a person with trauma.



4 min.

2

Study

1. **Introduce briefly the topic for today** and the learning goals for today's class.

2. Begin the lesson by introducing your students to the topic of trauma person assessment and its importance in emergency medical situations.



4 min.



Discuss the issues by asking the students the following questions to engage their prior knowledge:

1. *What do you understand by the term "trauma person assessment"?*
2. *Why do you think trauma person assessment is important in emergency medical situations?*



3. Introduce the main topic. Impart the key points to students by providing a brief overview of the MARCH trauma assessment procedure.



10 min.

Use the video

(WARNING: the video contains material that may be traumatizing to some audiences)

<https://tiny.pl/c8c1q>

Rapid Casualty Assessment Basic Training
Demonstration



LESSON 2

TRAUMA ASSESSMENT AND THE MARCH PROCEDURE

PART 6

LESSON 2

Anticipate the misconception that the MARCH trauma assessment is only applicable in combat or military settings.

While watching students answer multiple-choice questions.

[Download activity sheet:](#)
[Video questions](#)



4. Feedback

Allow students to discuss their answers first, then elicit the correct answers.

Offer explanations or additional information for correct and incorrect answers to reinforce learning.



5 min.

3

Practice



17 min.

1. Let the students demonstrate their understanding of key **MARCH procedure concepts** through a group discussion and demonstration.

Each group prepares a short presentation discussing one assigned aspect of MARCH and its importance in a trauma person assessment. Students are allowed to find some more information on the Internet.

[Download activity sheet:](#)
[MARCH concept](#)



2. Conduct a brief class discussion to summarize the key points covered in the lesson.

LESSON 3

APPLYING THE MARCH PROCEDURE TO TRAUMA PERSON ASSESSMENT

PART 6 LESSON 3



Students will be able to apply knowledge of trauma person assessment MARCH procedure to analyze and prioritize injuries in simulated emergency scenarios.

1

Introduction

Inform students that they will practice a trauma person assessment in emergency medical situations according to the MARCH procedure.



4 min.

2

Study

1. **Introduce briefly the topic for today** and the learning goals for today's class.

2. Begin with **reviewing the latest concepts** of the MARCH procedure in a 'Jeopardy' game format.



10 min.

Teams compete to score the most points and win, answering questions correctly.



<https://jeopardylabs.com/play/march-procedure>

"Jeopardy game"



[download
instructions](#)

Practice
makes
PROGRESS



3 Practice

1. Move on to applying the procedures in a simulated emergency scenario.



Group activity:

Present a scenario to students and tell them to determine the appropriate course of action for assessing and providing initial treatment to the trauma person.



15 min.



[download scenario](#)

Monitor the students' work, ask them to explain their decisions, and justify them based on their understanding of trauma person assessment.

2. Let the students imagine and anticipate possible subject cases for MARCH assessment.



Pair activity 1:

Ask students to write a scenario for another pair. It should contain the following information:

- who is the subject/sex/age,
- how long away from home/missing,
- where found (wilderness/forest/desert, etc.),
- weather conditions,
- subject behaviour/condition



6 min.



[download instructions](#)

3. Pair activity 2:

Applying the knowledge of trauma person assessment to a new context.

In pairs, students discuss and develop a plan for assessing the trauma person in this specific scenario.



13 min.

This activity can be completed in class or assigned as a after-class assignment.

ABOUT US



Authors:



Editor-in-chief
Graphic edition

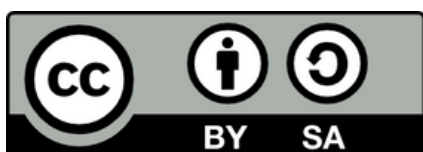


You have read **Chapter 1 Actions and Rules of Conducting Firefighting and Rescue Operations** of the **Inspirational Educational Guidelines for VET teachers & educators**. This material has been developed by the Ready4Crisis project team.

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