# "The Project is co-funded by the European Regional Development Fund (ERDF) and by national funds of the countries participating in the Interreg V-A "Greece-Bulgaria 2014-2020" Cooperation Programme

under grant agreement PREVEN-T - CN2 - SO2.4 - SC049



# PREVEN-T DELIVERABLE D5.3.3 Development of "virtual school" and the e-learning development platform

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**Dissemination Level:** P

PU

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## **PREVEN-T Project Profile**

PREVEN-T - CN2 - SO2.4 - SC049 **Grant Agreement No.:** 

> Acronym: PREVEN-T

> > PREVEN-T – Modern Tools for wildfires' and Floods' Risk punctual Title:

forecast and monitoring and innovative techniques for citizens'

safeguard awareness and preparedness

http://www.preven-t.eu/ - http://prevent.the.ihu.gr/ (NOT

**URL:** OFFICIAL - temporal)

Start Date: 03/03/2022

**Duration:** 18 months

#### **Partners**

INTERNATIONAL HELLENIC UNIVERSITY	International Hellenic University (IHU)	Greece
DOINA AKAJIMKA	Military Academy "General Mihailo Apostolski" (MAGMA)	RNM
DE THOTE	National Park Pelister (NPP)	RNM

## **Document History**

Version	Date	Date Author (Partner) Remarks/Changes		
0.1	10/07/2023	Dimitar Bogatinov (NPP)	Table of Contents	
0.2	15/07/2023	Dimitar Bogatinov (NPP)	1* Draft ready for internal review	
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1.0	20/07/2023	Dimitar Bogatinov (NPP)	FINAL VERSION TO BE SUBMITTED	

## **Abbreviations and acronyms**

Deliverable	D
Expected Outcomes	ЕО
International Hellenic University	IHU
Non-governmental organization	NGO
National Park Pelister	NPP
Learning Management System	LMS
Shareable Content Object Reference Model	SCORM

#### **Executive Summary**

PREVEN-T is an 18 month duration project funding from the Interreg IPA Cross-border Cooperation Programme: PREVEN-T – CN2 – SO2.4 – SC049.

The project "Modern Tools for wildfires' and Floods' Risk punctual forecast and monitoring and innovative techniques for citizens' safeguard awareness and preparedness" - PREVEN-T is financed under IPA Cross-Border Cooperation Programme Greece - Republic of North Macedonia (hereinafter: CBC Programme) was adopted for the Programming Period 2014-2020 and intends to ensure better coordination of programs and activities among Greece as a Member State and the Republic of North Macedonia as a neighbouring candidate country. Its global objective is to improve the operational efficiency and the administrative capacity of relevant services in natural disaster management. At the same time project's goal is to enable education, awareness, and sensitization of the local population, so that in cooperation with the competent authorities to have coordinated action to deal with Natural and Technological Disasters and Risks. The successful implementation of the project is expected to have "population benefiting from risk/hazards prevention and natural disasters management measures". The project is broken down in Work Packages that represent logically connected steps of implementation of the deliverables.

The identified deliverable D5.3.3 of LOT2 is development and supporting of "virtual school" and the elearning development platform that will be used for conducting educational and Training Seminars with the use of an e-Learning platform, aiming to awareness and preparedness against natural disasters and technological risks.

The main purpose of this document is to a report the progress of the PREVEN-T project during the deliverable D5.3.3 of Lot 2 Development of "virtual school' and e-learning platform.

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#### 1 Introduction

#### 1.1 Purpose of the document

The purpose of this document is to present the progress of implementation of D5.3.3 of Lot 2 Development of "virtual school' and e-learning platform, regarding the research activities as they are reported in the grant agreement.

#### 1.2 Intended audience

The intended audience of this document consists of the following target groups:

PREVEN-T project partners and the Project Officer at the Managing Authority

#### 1.3 Work Package Objective

The current deliverable D.5.3.3. objective is full support in the process of the installation, upgrades, and administration of e-learning platform, content, and course development. Support and participation in capacity building of training staff by using online and distance learning methods which will ensure long-lasting and sustainable results.

#### 1.4 Structure of the document

In chapter 2, this report presents details of process of support in the implementation of the e-learning platform (Installation, upgrades, and administration of e-learning platform, content, and course development.). Additionally, it details the process of tech support for the contracting authority for the e-learning platform, one day training for course administration and online training platforms and support in organizing Educational and Training Seminars (e-learning platform).

In chapter 3, this report presents conclusions and recommendations.

## 2 Research aims and methodology

#### 2.1 Research aims

The findings presented in this report are based work done during the process of supporting the implementation and tech support of the e-learning platform and organizing Educational and Training Seminars (e-learning platform) for students and participate in the informative and educative seminar (training the trainers).

#### 2.2 Methodological framework

# 2.2.1 Details of process of support in the implementation of the e-learning platform (Installation, upgrades, and administration of e-learning platform, content, and course development.)

The development of the platform was created by P1, parallel with the development of the webpage of the project. Overall support was given during the process of:

- installation of the platform and its version,
- · template selection and interface development,
- functionalities of the platform,
- authentication process,
- participant enrolment,
- backup and security measures incorporation
- upgrades of the platform, etc

Initial interface of the project page (<u>www.preven-t.eu</u>), menu to access to the e-learning platform is shown on figure 1. The Prevent e-learning platform can be accessed directly on the following link: <a href="https://elearning.preven-t.eu/">https://elearning.preven-t.eu/</a>

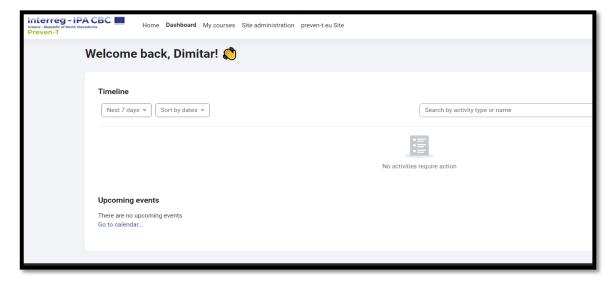


FIGURE 1: PROJECT PAGE, AND MENU TO ACCESS THE E-LEARNING PLATFORM

Figures 2 and 3 represent the login interface and the dashboard of the eLearning platform, that was developed with the P1, and with guidance of P3.



FIGURE 2: LOGIN PAGE OF THE E-LEARNING PLATFORM





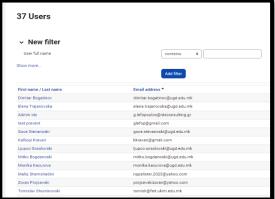


Figure 3: Dashboard, home page and created users of the e-learning platform

#### 2.2.2 Tech support for the contracting authority for the e-learning platform

As an engaged expert to the project, I was granted administrative role to the platform, in this role I supported the:

- · creation of interface;
- creation of new courses and categories;
- manual enrolment of users;
- course development;
- user privilege modification;
- theme template adjustment;
- translation of courses/parts in Macedonian language.

During the process of updating the platform, there was a problem with the PHP versions, and it was resolved after consultation and guidance to the P1 developer.

#### 2.2.3. One day training for course administration and online training platforms

For this activity a course for the use of Moodle was developed. The courses are created in Macedonian and English language.

The courses cover the following Course structure:

- Module 1. General platform data.
- Module 2. Create and manage your own profiles.
- Module 3. Creating and solving courses.
- Module 4. Adding resources.
- Figure 4 represents the outline of the courses.



FIGURE 4: OUTLINE OF THE COURSES IN ENGLISH AND MACEDONIAN

The course structure is developed to be used as a standalone course for asynchronous learning, and is using SCORM packages<sup>1</sup>, tasks, resources, shared pages, etc. Figure 5 represents the interface of the course, and the next figure represents the created SCORM package for Lesson 3. working with resources.

<sup>&</sup>lt;sup>1</sup> SCORM stands for Shareable Content Object Reference Model. It is an international standard for e-courses. If the course is published in the SCORM format, almost any learning management system (LMS) will recognize it. I

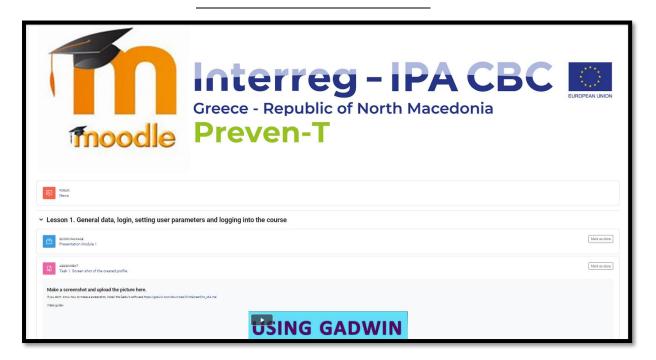


FIGURE 6: INTERFACE OF THE MOODLE TRAINING COURSE



FIGURE 7: SCORM PACKAGE FOR LESSON 3. WORKING WITH RESOURCES.

Part of the participants had the opportunity to pass the course, and the course is available for all the other interested participants. The Macedonian language interface is represented in Figure 8.

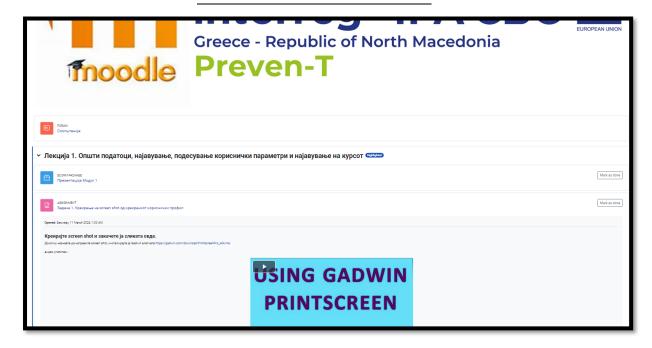


FIGURE 8: INTERFACE OF THE MOODLE TRAINING COURSE, CREATED IN MACEDONIAN LANGUAGE.

#### 2.2.4. Support in organizing Educational and Training Seminars (e-learning platform)

The current platform is configured, and all the required plugins and permissions are given to selected participants to organize and conduct educational and training seminars using the PREVENT platform. Extended support will be provided up to the end of the project, and as needed in the future.

## 3 Conclusions and recommendations

The primary purpose of the deliverable 5.3.3 was the Development of a "virtual school" and the elearning development platform in National Institution "National Park Pelister" Bitola.

The desired outputs for the Development and support of "virtual school" and the e-learning development platform and trained personnel for course administration and online training platforms are fully reached.

## 3 References



## <u>Παραδοτέο</u>

Ενημερωτικό και εκπαιδευτικό σεμινάριο (εκπαίδευση των εκπαιδευτών) θα πραγματοποιηθεί στη Θεσσαλονίκη, όπου οι προσκεκλημένοι (πρωτοβάθμιοι, δευτεροβάθμιοι εκπαιδευτικοί, προσωπικό των Αρχών Πολιτικής Προστασίας και υπάλληλοι του Δήμου), θα έχουν την ευκαιρία να εξοικειωθούν και να εκπαιδευτούν με το Εικονικό σχολείο. Περιλαμβάνονται τα έξοδα μετακίνησης των ενδιαφερομένων (Παραδοτέο D5.1.3).

### Για το Έργο

«Σύγχρονα εργαλεία για την έγκαιρη πρόβλεψη και παρακολούθηση του κινδύνου πυρκαγιών και πλημμυρών και καινοτόμες τεχνικές για την ευαισθητοποίηση και την ετοιμότητα των πολιτών σε θέματα προστασίας - Modern Tools for wildfires' and Floods' Risk punctual forecast and monitoring and innovative techniques for citizens' safeguard awareness and preparedness», ακρωνύμιο «PREVEN-T», με κωδικό ΟΠΣ: 5067208

## Στο πλαίσιο της σύμβασης

«Παροχή εξιδεικευμένων επιστημονικών και τεχνικών υπηρεσιών για την υποστήριξη των εταίρων του έργου καθώς και παροχή υπηρεσιών για την διοργάνωση σειράς εκδηλώσεων στο πλαίσιο του έργου με ακρωνύμιο «PREVEN-T» και κωδικό ΟΠΣ: 5067208»

## Αναθέτουσα Αρχή

## ΔΙΕΘΝΕΣ ΠΑΝΕΠΙΣΤΗΜΙΟ ΕΛΛΑΔΟΣ

## Ανάδοχος

## ΕΝΩΣΗ ΕΤΑΙΡΙΩΝ IDS-IDEA







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### 1 Summary

This document is related to innovative virtual reality training. In this context, an informative and educative seminar (training the trainers) was conducted in Thessaloniki, Greece at IHU premises (Sindos Campus). During this event entire accident scenaria was reproduced along with intervention strategies and tactics, including the whole chain of command and communications between all members of the first responders' team, facility managers, and public (e.g. volunteer fire fighters, school children, citizens with disabilities).



## 2 Training-the-Trainers informative and educative seminar

#### 2.1 Target audience:

Educators from primary and secondary schools, Civil Protection Authorities staff and Municipal employees.

#### **2.2** The objectives of the Training-the-Trainers seminars:

- 1. To ensure that participants have the capacity and confidence to replicate and adapt the proposed methodology for training of children and adults in different areas of civil protection, being flexible and changing the training in response to participants and circumstances.
- 2. To provide curricular guidelines and instructions on how to use the teaching aids contained on the training platform.
- 3. To provide training guidelines for the trainers of civilians involved in the emergency response.

# 2.3 Overview of the Training-the-Trainers informative and educative seminars:

An informative and educative seminar was held in **Thessaloniki** (**February 2023**), where invited participants (primary and secondary school educators, Civil Protection Authorities staff and Municipal employees) had the opportunity to be familiarized and trained with **the Virtual School methodology** in order to try to apply these activities to their organizations by multiply their effect in the addressed groups.

Virtual School is a training methodology of IHU which aims to educate pupils of primary schools on how to deal with natural disasters and to protect them from such hazards by using Mixed Reality technologies, and to train them on the use of three-digit emergency numbers. Children are asked to build a 3D miniature model of their school and use cutting-edge technologies (Augmented Reality) to train in dealing with natural disasters (earthquake, flood, fire, injury, etc.).

## 2.4 Learning Objectives

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

- Identify which are the key information to be provided to the pupils.
- How to be familiarized and trained with the Virtual School
- How to apply these activities to their organizations by multiply their effect in the addressed groups.



## **3 Guidelines for the Training-the-Trainers seminar**

#### 3.1 Resources/Equipment required for the case study:

- A computer with an Internet connection
- A printer (monochrome or colour)
- A mobile device (tablet or Smartphone)

## 3.2 Planning and Preparation:

The following checklist ensured that important steps were not omitted

- Criteria for the selection of participants (profiles, professional experiences and cultural and educational backgrounds)
- Training agenda and invitation for the seminar
- Prepared handouts, slides and work sheets
- Arrange for snacks/drinks
- Arrange the room and equipment
- Print and multiply the Evaluation form, the Information Sheet and the Inform consent form

### 3.3 Evaluation Questionnaires

The evaluation questionnaires were optional.

	Demographic Questions					
A	GE (years old)		GENDER	EDUCATION	EMPLOYMENT	MARITAL STATUS
A.	Under 18		A. Male	A. Less than a school diploma	A. Full time	A. Single
B.	18-24		B. Female	B. High school degree	B. Part time	B. Married
C.	25-34		C. Prefer not to say	C. Bachelor's degree	C. Unemployed	C. Divorced
D.	35-44		Other (please specify):	D. Master's degree	D. Student	D. Windowed
E.	44-54			E. Doctorate	E. Retired	
F.	55-64			Other (please specify):	F. Self - employed	
G.	Over 65				G. Unable to work	



Please answer the following questions (1 = strongly disagree 5 = strongly agree)				3	4	5
1	The programme of the training was well balanced.					
2	The topics of the training were well selected.					
3	The content of the training was useful and from now on is part of my knowledge.					
4	The format of the training was interesting and allowed me to participate more actively.					
5	The length of the discussions in the training was adequate.					
6	6 The training provides adequate networking and collaborative opportunities.					
7	7 Information and general management before the training was helpful and efficient.					
8	8 The registration process was simple and easy to handle.					
9	The training environment was appropriate.					
10	The trainers were helpful, friendly and efficient.					

### 4 Virtual School infrastructure and technology

Virtual School is a training approach of- IHU, based on the educational framework "Inclusion for All", which aims to educate pupils of primary schools on how to deal with natural disasters and to protect them from such hazards by using Mixed Reality technologies, and training them on the use of three-digit emergency numbers.

Children, supervised by their Teacher(s), are asked to build a 3D miniature model of their school and use cutting-edge technologies (Augmented Reality) to train in dealing with natural disasters (earthquake, flood, fire, injury, etc.).

Virtual School relies on Augmented Reality technology to provide a mixed reality experience to the students. In particular, the students create a model of their school through the provided instructions and simple, cheap, and easy-to-find materials, following step-by-step instructions which are provided free to each school.

To promote collaborative learning, and problem-solving, small groups of students (comprised of 2-3 members) are formed which act as the brainstorming cells and the decision-makers.

Using the provided educational material, they print the action cards and they are asked to state the actions they would take in cases of a variety of types of natural disasters or emergency cases that can happen in the school environment or their everyday lives.

Students are expected to analyze the evidence of the given scenario (i.e you are located on the upper floor of your school and there is a fire on the next classroom. How do you react?), discuss the optimum solution, and pick the appropriate action card (among the available per scenario) which is the optimum way to react

Once the group reaches a consensus the leader of the group places the selected card within the 3D miniature of the Virtual School and with the help of a mobile device (such as smartphone or tablet) they are triggering a response via the augmented reality application ARTutor (UNESCO nominated, and Education Leaders Award-winning platform). ARTutor provides feedback via augmentations, not only in the case where the correct answer is selected, but also analyses the wrong answers by explaining why the selected reaction is not appropriate. In such a case the group can reconsider their answer and try again to find the correct reaction

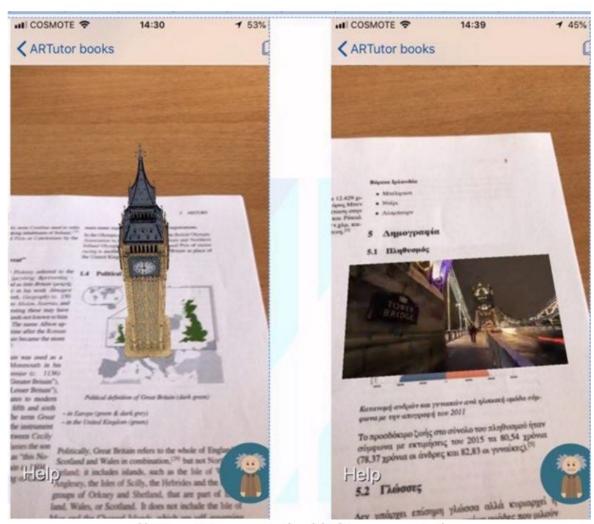
At the end of each action, the students receive feedback on their responses through augmented reality technology.

Virtual School is an innovative educational program for disaster preparedness and response training, utilizing educational frameworks such as gamification, inclusive learning, and problem-based learning. It is based on a mixed reality environment where students have to interact with the environment to perform the correct actions in several educational disaster scenarios.



Virtual School was awarded by the European Commissioner for humanitarian aid Mr. Christos Stylianides (October 2019), by Educational Leaders Awards 2020. Also, Virtual School was recently accredited by the Institute of Educational Policy of the Ministry of Education Greece (January 2021)

Virtual School uses **ARTutor an Augmented Reality Training Platform** developed by the Advanced Educational Technologies and Mobile Applications Lab (AETMA). AR Tutor is available free of charge to all teachers and students around the world to help them develop educational materials and improve their learning experiences. AR Tutor is a domain-independent platform, focusing on adding digital content, so-called augmentations, to traditional educational books (typically in any PDF) and other texts. ARTutor enables each educator to create augmented books easily, without any requirements of programming background. In addition, the platform serves the aim of assisting the students' independent study and ultimately improving the understanding of the educational material.



(1) 3D model augmentation (2) Video augmentation

Figure 1. The ARTutor augmented reality application



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To carry out the activities of the program, IHU needs the following materials and infrastructures:

- 1. **Virtual School electronic educational material.** The educational material is provided by the program and includes a) instructions for building a school model, b) action cards and c) educational scenarios for printing.
- 2. Simple materials for the construction of the school model according to the provided instructions.
- 3. **A smart mobile device (preferably tablet),** either with Android operating system and ARCore compatible or with the iOS operating system and ARKIT compatible which can utilize augmented reality technology applications
- 4. The ARTutor augmented reality application for viewing the augmentations,
- **5. Internet connection** to download the necessary information to the mobile device.



Figure 2. School model





Figure 3. Implementation of Virtual School methodology in primary schools



## 5 Training-the-Trainers Thessaloniki seminar



#### Training-the-Trainers Seminar

#### PLACE:

## INTERNATIONAL HELLENIC UNIVERSITY (IHU), SINDOS THESSALONIKI

#### **27 FEBRUARY 2023**

15:15 -15:30	Opening – Welcome Prof. Dimitrios Emmanouloudis (Project Coordinator)
15:30 - 16:00	Virtual School presentation & guidelines
16:00 - 17:30	Practical use of VR
17:30 - 18:00	Flood protection guidelines and innovative proposed practises
18:00 - 18:10	Closure













Figure 4. Thessaloniki Seminar



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#### **EMERGENCY GUIDE FOR FLOODS**



#### IF FLOODS ARE FORECAST:

- Move pets, vehicles, valuables & other sentimental items and important documents to safety.
- Prepare your supply of sandbags. Dome district councils can supply sandbags, but otherwise you can purchase them from builders' merchant, in an emergency create your own with pillowcases or carrier bags filled with sand or soil.
- Prepare food that you can eat with out cooking, clean bottled water, warm clothes.
- Charge your mobile phone.

#### **IF FLOODS ARE IMMINENT:**



- Alert vulnerable neighbors.
- Switch off gas, electricity and water ay the mains.
- Ensure sandbags or flood boards and airbrick covers are in place.
- Plug sinks / baths or low-level shower trays and weigh them down to prevent backflow.
- Store smaller electrical appliances and furniture as high as possible.
- Do as much as you can in daylight. It will be much harder at night, particularly if the electricity fails.
- In the case of flash flooding, evacuate basement flats immediately and seek higher ground.

#### **EMERGENCY KIT**



- Insurance documents, other important documents
- Batteries (not rechargeable)
- Portable radio (wind-up preferable)
- Mobile phone
- First aid kit with essential prescription medication / repeat prescription form
- Bottled water (check use by date)
- Non-perishable food items (including energy or cereal bars)
- Blankets, warm clothes
- Wash kit and essential toiletries (including toilet paper and wet wipes)
- Children's essentials (milk, baby food, sterilized bottles & spoons, nappies, wipes, nappy bags, clothing, comforter, teddy, or favorite toy)
- Camera to record damage for insurance purposes
- Emergency cash
- Additional items for flood kit: wellington boots, waterproof clothing, rubber gloves

#### STAYING SAFE IN AN EMERGENCY

#### **AT HOME**



- Listen to advice given on local radio.
- Avoid electric shocks keep extension cables out of water and wear rubber boots.
- Avoid enclosed areas which may not be ventilated and where hazardous fumes may build (e.g. garages and cellars).
- Avoid contact with floodwater it may be contaminated with sewage.
- Do not let children play in flood water.
- Wash cuts and grazes and cover with a waterproof plaster.
- Avoid walking through floodwater 15 cm of fast-flowing water can knock you over.
   Manhole covers may have come off and there may be other hazards you can't see.
- Don't walk along riverbanks or cross river bridges if avoidable they may collapse in extreme situations.

#### **ON THE ROAD**



- Avoid travel but if you must, drive slowly and cautiously. You may know your local roads very well, but a flood can alter the landscape dramatically and turn a quiet road into a potential hazard.
- Don't drive through water if you can't tell how deep it is. Around 60 cm of water is all it takes to float many cars.
- Aqua-planning is much more likely in flood conditions.
- Drive considerately: remember your bow-wave could flood nearby homes.
- Don't drive down close roads
- 80% of flood-related deaths occur inside a vehicle. If your car stalls in the water, do not attempt to recover it leave it and move yourself to safe ground.
- Let someone know your travel plans.

#### IF YOU HAVE TO EVACUATE



Emergency services will tell you if you have to evacuate. Follow their instructions carefully.

- Remain calm and leave as quickly as possible.
- Get your family and pets together.
- Check if neighbors need help.
- Make sure fires are out and appliances are turned off.
- Shut all windows and lock doors.
- Emergency accommodation will be provided at a Rest Centre set up for you. You can arrange to stay with family or friends, or your insurance may cover the cost of alternative accommodation.
- If you decide to stay with family or friends let the Police or your council know.
- Do not return home unless you are told by authorities that it is safe to do so.
- Take your emergency kit, including prescription medicines.

#### AFTER THE FLOODS

## IF YOU ARE UNFORTUNATE ENOUGH TO BE FLOODED, HERE ARE A FEW POINTERS FOR WHEN YOU FIRST GET HOME



#### **FIRST TIPS**

Clean taps and run them before use. Have power and gas supplies checked by a professional electrician or gas plumber before turning them back on. Throw away food (including freezer items if power has been off) that may be contaminated and restock your supplies.

Your insurer will arrange for a loss adjuster and other specialists to visit your home to assess the damage. They will project-manage much of the clear up, so speak to them before acting on anything.

#### THE THREE-STEP CLEAN-UP

If possible, don't fully re-occupy your property until after the following:

#### 1. Remove water and mud

- The fire & Rescue Service can pump out standing water but will charge for nonemergencies. Otherwise use a pump (from hire or DIY shop), or use buckets followed by a wet/dry vacuum.
- Shovel out mud (which may be contaminated) then hose out or use a garden sprayer.

#### 2. Clean and disinfect

- Wear protective clothes, boots and rubber gloves.
- Use a brush, soapy water and heavy-duty cleaner, then rinse.
- Floodwater may be contaminated so disinfect all areas affected after cleaning.
   Make sure you wash your hands with disinfectant after cleaning up.
   Disinfecting also avoids mildew and moulds.

#### 3. Dry

- Take furniture, bedding and clothing outside, to avoid mould.
- Use fans plus industrial heaters and dehumidifiers.
- Have the central heating on at 22°C or above.
- Drying out can take weeks or even months. If it's done too quickly, it can cause structural damage and long-term problems.
- Good ventilations is essential keep windows and doors open on dry days and remove any air brick covers.

## Module: How to react in case of flood



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## 1. Introduction

- 1.1 At home, at school, in the woods
- 1.2 Prevention tips

## 2. How to react in case of flood at home

- 2.1 Detection
- 2.2 What to do if we can leave the place
- 2.3 What to do if we can't leave the place
- 2.4 What to do after the disaster

## 3. How to react in case of flood at school

- 3.1 Detection
- 3.2 What to do if we can leave the place
- 3.3 What to do if we can't leave the place
- 3.4 What to do after the disaster

## 4. How to react in case of flood in the woods

- 4.1 Detection
- 4.2 What to do if we can leave the place
- 4.3 What to do if we can't leave the place
- 4.4 What to do after the disaster

#### 1. Introduction

## 1.1 At home, at school, in the woods

In this module, we will analyze the most frequent flood possibilities in which a child, a young person and a person with disabilities can be found.

Both preventive measures and advice on how to react in the event of a flood may be slightly different depending on where we are.



#### 1. Introduction

#### 1.2 Prevention tips

On a preventive level, we should not throw waste into rivers, streams and canals where we live and anywhere, and we should inform competent public utility service if the waste is already in the river or other waters.

In schools, all preventive measures are standardized, and it is the students' responsibility to know and respect them.

If we are in the woods, we must pay maximum attention to the weather and to stay informed regarding weather conditions.

#### 2. How to react in case of flood at home

#### 2.1. Detection

Flooding is the presence of large amounts of uncontrolled water that can endanger life and health of people and which may cause material damage.

Conditions that cause floods include heavy or steady rain for several hours or days that saturates the ground.

When danger of flooding is present, you should listen radio, television or Internet for possible flood warnings and reports of flooding in progress.

Anyway, you should stay away from electrical cables, unplug all electrical appliances and be prepared for evacuation.



#### 2.2 What to do if we can leave the place

- Close your home well before leaving;
- Prepare a bag with personal documents and essential things (a bottle of drinking water, warm clothes, boots, flashlight, whistle, raincoat, transistor radio and extra batteries, stick, rope, etc.);
- Follow the advice of the competent state and local institutions;
- Do not walk through moving water and avoid the areas that are known to have landslides and rockfalls;
- If you have to walk in water, walk where the water is not moving, and do not cross streams and brooks;
- Be cooperative, collaborate with rescue teams and do not obstruct their work;
- Follow the indicated evacuation routes and do not use other shorter routes;
- Request information from the competent local institutions, from radio or the Internet, where there is organized accommodation and food.



#### Movement on ice on the surface of water - rivers or lakes

In a case you are moving on ice, you should always have the necessary protective equipment in such situations, as well as a mobile phone and a whistle around your neck.

If the ice breaks, you should follow next instructions:

- Don't move;
- Call for help immediately or blow the whistle;
- Try to slowly return to where you came from;
- Try to rise above the ice, roll on it or crawl, until you reach thicker ice;
- If you are not able to return to safe ice, remember that it is necessary to reduce body heat loss.



#### 2.3 What to do if we can't leave the place

- Bring items from the yard inside the house or fasten them where they are located:
- Join with neighbors to put sandbags or other protection in place;
- Lock all doors:
- Move to the upper floors of the house main appliances and other important items;
- Stay away from electrical cables and unplug all electrical appliances;
- Listen to the radio, television and the Internet for further information;
- Be informed on water supply and whether it is safe to drink the water.

No matter of all this steps, if there is a risk, you should move immediately to the upper floors of the house.

IN CASE OF FLOOD



Climb to the roof

#### 2.4 What to do after the disaster

- Do not visit flooded areas, stay away from the buildings that are surrounded by floodwaters and be careful when entering any building;
- Be cautious in the areas where floodwaters have receded:
- Return to your home only when competent authorities indicate it is safe;
- Secure your home (turn off electricity at the main switc, use battery light and do not use electrical appliances before checking);
- Clean and disinfect everything that got wet;
- Immersed rooms should be cleaned with warm soapy water;
- Discard or wash with hot water flooded clothing and bedding;
- Do not use fresh water if it has come in contact with flood water;
- Report broken power lines or water pipes to the authorities;
- If you see dead animals, notify the competent service.



#### Questions (choose the right answer)

#### In a case of flood, when you can leave home, you should:

- 1. Close your home well and find the shorter routes for evacuation.
- 2. Open your home and follow the indicated evacuation routes and do not use other shorter routes.
- 3. Close your home, follow the indicated evacuation routes and do not use other shorter routes.

#### In a case of flood, when you can't leave home, you should:

- 1. Open all doors, move to the upper floors of the house, unplug all electrical appliance, stay close to the electrical cables.
- 2. Lock all doors, move to the upper floors of the house, unplug all electrical appliance, and stay away from electrical cables.
- 3. Lock all doors and stay close to the electrical cables, but don't touch them.

#### After the flood, you should:

- 1. Return to your home immediately, secure your home and disinfect everything that got wet;
- 2. Return to your home only when competent authorities indicate it is safe, secure your home and disinfect everything that got wet;
- 3. Return to your home immediately and turn of electricity.

#### The right answers

#### In a case of flood, when you can leave home, you should:

- 1. Close your home well and find the shorter routes for evacuation.
- 2. Open your home and follow the indicated evacuation routes and do not use other shorter routes.
- ✓ 3. Close your home, follow the indicated evacuation routes and do not use other shorter routes.

#### In a case of flood, when you can't leave home, you should:

- 1. Open all doors, move to the upper floors of the house, unplug all electrical appliance, sand close to the electrical cables.
- ✓ 2. Lock all doors, move to the upper floors of the house, unplug all electrical appliance, sand stay away from electrical cables.
- 3. Lock all doors and stay close to the electrical cables, but don't touch them.

#### After the flood, you should:

- 1. Return to your home immediately, secure your home and disinfect everything that got wet;
- ✓ 2. Return to your home only when competent authorities indicate it is safe, secure your home and disinfect everything that got wet;
- 3. Return to your home immediately and turn of electricity.

#### 3. How to react in case of flood at school

#### 3.1 Detection

Natural disasters like floods can happen at any time, and when they happen at school, everyone

should be prepared to handle them safely and effectively

• Sometimes schools are safe and they are used as community gathering grounds

• No one should enter flood water or put their life at risk!

#### 3.2 What to do if we can leave the place

If flood happens while you are at school, listen for updates from the local authorities, let school administrators/teachers tell you where to go and what to do or not to do.

Mainly, you should follow these directions:

- Listen the instructions from your teacher;
- Follow appropriate evacuation signs;
- Stay with your classmates;
- Stay safe, always listen to the advice of teachers and evacuate when told to do so. W.
   will be taken to an evacuation centre run by your local council;
- Move important items to higher places;
- Move/retreat to higher ground and avoid standing, flowing, or rising water
- Do not touch electrical devices when there is water around (avoid electricity sources);
- Don't touch flood water it may be polluted, or there may be downed power lines closely;
- Contact family when you get a chance;
- During a water advisory, use only bottled, boiled, or treated water for drinking;
- Help your teacher to evacuate students who have special needs, because they need extra help/assistance.

#### 3.3 What to do if we can't leave the place

Sometimes it is too dangerous to leave the school building, so you and your classmates will be forced to stay into the school and follow next instructions:

- Stay with your classmates;
- Do not panic, stay calm!;
- Stay where you are and wait for further instructions;
- Move to higher ground or a higher floor. Don't go into a basement!;
- Do not climb into a closed attic. You may become trapped by rising flood
- Only get on the roof if necessary and if your teacher tell you to do so;
- During a flood you must move important items to a safe place or higher floor;
- Do not go out and walk through the road where the water is moving;
- Use only bottled water for drinking;
- Wash your hands after coming into contact with floodwater.



#### 3.4 What to do after the disaster

After flood has ended, the risks still remain, so students should follow next instructions:

- Listen for news reports to learn whether the community's water supply is safe to drink;
- Avoid floodwaters; water may be contaminated by oil, gasoline, or raw sewage. Water may also be electrically charged from underground or downed power lines;
- Avoid moving water;
- Be aware of areas where floodwaters have receded. Roads may have weakened and could collapse under the weight of a car;
- Stay away from downed power lines and report them to the power company.
- Stay out of any building if it is surrounded by floodwaters;
- Use extreme caution when entering buildings; there may be hidden damage, particularly in foundations;
- If it's dark, use a flashlight not matches, a candle or a lighter;
- If your skin comes into contact with contaminated flood water, wash with soap and uncontaminated water as soon as possible;
- Clean and disinfect everything that got wet. Mud left from floodwater can contain sewage and chemicals.

#### Questions (choose the right answer)

#### When you can leave school in a case of flood, you should:

- 1. Listen the instructions from your teacher, follow appropriate evacuation signs, and stay with your classmates.
- 2. Listen the instructions from your parents via mobile.
- 3. Stay with your classmates, but listen the instructions from your parents via mobile.

#### When you can't leave school in a case of flood, you should:

- 1. Move on to the roof.
- 2. Move to higher ground or a higher floor.
- 3. Move into a basement or climb into a closed attic.

#### After the disaster, you should:

- 1. Avoid floodwaters and stay close to downed power lines.
- 2. Stay close to floodwaters, but away from downed power lines.
- 3. Avoid floodwaters and stay away from downed power lines.

#### The right answers

#### When you can leave school in a case of flood, you should:

- ✓ 1. Listen the instructions from your teacher, follow appropriate evacuation signs, and stay with your classmates.
- 2. Listen the instructions from your parents via mobile.
- 3. Stay with your classmates, but listen the instructions from your parents via mobile.

#### When you can't leave school in a case of flood, you should:

- 1. Move on to the roof.
- ✓ 2. Move to higher ground or a higher floor.
- 3. Move into a basement or climb into a closed attic.

#### After the disaster, you should:

- 1. Avoid floodwaters and stay close to downed power lines.
- 2. Stay close to floodwaters, but away from downed power lines.
- ✓ 3. Avoid floodwaters and stay away from downed power lines.

#### 4. How to react in case of flood in the woods

#### 4.1 Detection

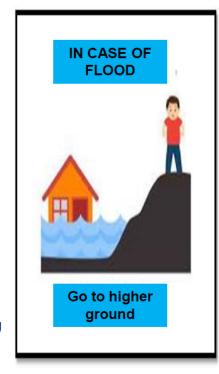
Flash floods occur suddenly and develop quickly due to rapidly rising wate and sometimes without visible signs. Even ordinary rains, can occur floods i the characteristics of the area allow it to be flooded quickly.

If you are in woods and flooding is likely, do not panic and tried to find o get in touch with rescue teams, and then strictly follow the instructions o the rescuers.



#### 4.2 What to do if we can leave the place

- Do not walk through moving water and avoid the areas that are known to have landslides and rockfalls;
- If you have to walk in water, walk where the water is not moving, and do not cross streams and brooks:
- Be cooperative, collaborate with rescue teams and do not obstruct their work;
- If there are electrical cables, stay away from them;
- Follow the advice of the competent state and local institutions;
- Follow the indicated evacuation routes and do not use other shorter routes;
- If you are instructed to go to a specific location, go there and nowhere else;
- Request information from the competent local institutions, from radio or the Internet, where there is organized accommodation and food;
- If there is conditions for that, stay informed via radio and the Internet regarding situation and weather conditions.



#### 4.3 What to do if we can't leave the place

- Climb on a higher place or on a tree that is close to you;
- Do not walk through moving water and avoid the areas that are known to have landslides and rockfalls;
- Avoid the floodwater and be informed on water supply and whether it is safe to drink the water;
- If there are conditions for that, stay informed via radio and the Internet regarding weather condition.



#### 4.4 What to do after the disaster

- Return to your home only when you have relevant information that indicate it is safe;
- Avoid moving water;
- Be cautious in the areas where floodwaters have receded the roads may be damaged and dangerous;
- Do not visit flooded areas.



#### Questions (choose the right answer)

#### When you can leave place in a case of flood, you should:

- 1. Although you are instructed to go to a specific location, you could use other shorter routes.
- 2. Collaborate with rescue teams, do not walk through moving water, and stay away from electrical cables.
- 3. Do not walk through moving water and stay close to electrical cables.

#### When you can't leave place in a case of flood, you should:

- 1. Do not walk through moving water and go down to a lower place.
- 2. Do not walk through moving water and climb on a higher place or on a tree.
- 3. Pass through moving water and climb on a higher place or on a tree.

#### After the disaster, you should:

- 1. Return to your home immediately, but be cautious in the areas where floodwaters have receded.
- 2. Return to your home by crossing the flooded areas.
- 3. Avoid moving water and return to your home only when you have information that indicate it is safe.

#### The right answers

#### When you can leave place in a case of flood, you should:

- 1. Although you are instructed to go to a specific location, you could use other shorter routes.
- ✓ 2. Collaborate with rescue teams, do not walk through moving water, and stay away from electrical cables.
- 3. Do not walk through moving water and stay close to electrical cables.

#### When you can't leave place in a case of flood, you should:

- 1. Do not walk through moving water and go down to a lower place.
- ✓ 2. Do not walk through moving water and climb on a higher place or on a tree.
- 3. Pass through moving water and climb on a higher place or on a tree.

#### After the disaster, you should:

- 1. Return to your home immediately, but be cautious in the areas where floodwaters have receded.
- 2. Return to your home by crossing the flooded areas.
- ✓ 3. Avoid moving water and return to your home only when you have information that indicate it is safe.

# How to react in case of flood for children

#### 1. How to react in case of flood at school



When the alarm sounds, follow the teacher's instructions



Stay with your classmates at school



Move important items to higher places



Listen to the radio for further information



Follow appropriate evacuation signs



Do not touch electrical devices



Drink only bottled water



Go to the meeting point and stay there

#### 2. How to react in case of flood at home



Stay at home and close the doors



Do not walk through moving water



Listen to the radio for further information



Do not use matches or candles if dark



Do not touch electrical devices (turn off electricity)



Wash your hands after coming into contact with floodwater



Drink only bottled water



Call for help and wait for rescue tim to save you

#### 3. How to react in case of flood in the woods



Avoid rivers or other waterways during heavy rainfall



Stay clear of any electrical systems (electricity cables)



Avoid entering fast flowing water



Do not go barefoot, wear shoes all the time



Climb on a tree



Drink only botteled water



Watch out for floating objects and debris in the water.



Use your cell phone to call for help and wait



# Safety Checklist

#### DO

- Listen the instructions from competent state and local institutions or your teacher;
- Follow appropriate evacuation signs;
- Lock all doors at home;
- Stay with your classmates at school;
- Move important items to higher



#### places;

 Move/retreat to higher ground and avoid standing, flowing, or rising water;

#### DON'T DO

- Do not use electrical appliances before checking;
- Do not touch electrical devices when there is water around (avoid electricity sources);
- Do not use fresh water if it has come in contact with flood water;
- Do not walk through moving water and avoid the areas that are known to have landslides and rockfalls;
- Follow the indicated evacuation routes and do not use other shorter routes;
- Do not walk through fast-flowing water, even if it is only a few inches deep;
- If you are instructed to go to a specific location, go there and do not go anywhere else;
- Do not go barefoot, wear shoes all the time;
- Do not let someone drive through deep or fast-flowing water on a road;

- Move to the upper floors of the house/school main appliances and other important items;
- Listen to the radio for further information;
- Be informed on water supply and whether it is safe to drink the water;
- Secure your home (turn off electricity at the main switc, use battery light;
- Wash your hands after coming into contact with floodwater. The water often sweeps up all sorts of debris, including sewage;
- Avoid entering fast flowing water because it can trap you and make it very difficult for you to escape;
- Beware of injuring yourself on dangerous objects, such as broken glass, or underwater debris;
- Move slowly across the shallow water, using the stick for support;
- Help your teacher to evacuate students who have special needs, because they need extra help/assistance;
- Use only bottled water for drinking;
- Stay out of any building if it is surrounded by floodwaters;
- Use extreme caution when entering buildings; there may be hidden damage, particularly in foundations;
- If it's dark, use a flashlight;
- Wash your skin if comes into contact with contaminated flood water with soap and uncontaminated water as soon as possible.

- Do not stay near rivers or other waterways when there has been a heavy rainfall;
- Do not climb into a closed attic. You may become trapped by rising floodwater;
- Do not go out and walk through the road where the water is moving;
- Do not use matches, a candle or a lighter in a dark;
- Do not visit flooded areas;
- Do not panic, stay calm!



#### **EMERGENCY GUIDE FOR FIRES**

#### If you discover a forest fire:

- Call 112.
- Follow the Self-protection
   Plan for your housing development.
- Follow the instructions of the fire brigade and the police.
- Listen to the radio to find out what's going on and what you should do.

In an emergency situation, call 112 when in need of help.

What you can do to prevent fire and protect yourself in woodland, housing Developments, farms and isolated houses.

#### **Contents**

### **Know the forest and the risk** of fire

# How to keep your home and its surroundings safe from forest fires

- 1. In the home and garden
- 2. In the streets of housing developments and at isolated houses

# How to protect housing developments, isolated houses and their surroundings against forest fires

- 1. Housing developments, isolated houses and surrounding areas
- 2. Access to housing developments and isolated houses
- 3. Get ready for emergencies: the Self-protection Plan

#### Forest fire warning systems

# What to do in the event of an emergency in a populated area

- 1. Stay inside
- 2. Evacuation
- 3. Actively protect your home

How to protect yourself from fire in woodland or open country

How to protect yourself if fire catches you by surprise in your car

If you discover a forest fire...

Are you protected against forest fires?

#### Know the forest and the risk of fire

#### What type of forest fires are there?

- The most frequent and violent burn all the vegetation and flammable matter littering the ground.
- There are also crown fires which only burn the crowns of trees, especially conifers such as pines.
- Another type are ground fires, almost non-existent in Catalonia and not visible, which burn all the organic matter in the earth's subsoil.

#### What factors affect forest fires?

- The weather: humidity and rain can reduce the risk of fire but wind and high temperatures encourage its spreading.
- The land's topography: fire quickly spreads up the steepest terrain, especially on sunny slopes (south and west facing).
- Flammable matter: the type, quantity and distribution of grass, shrubs, leaves and trees, etc. all affect fire.

#### How do forest fires spread?



### How to keep your home and its surroundings safe from forest fires

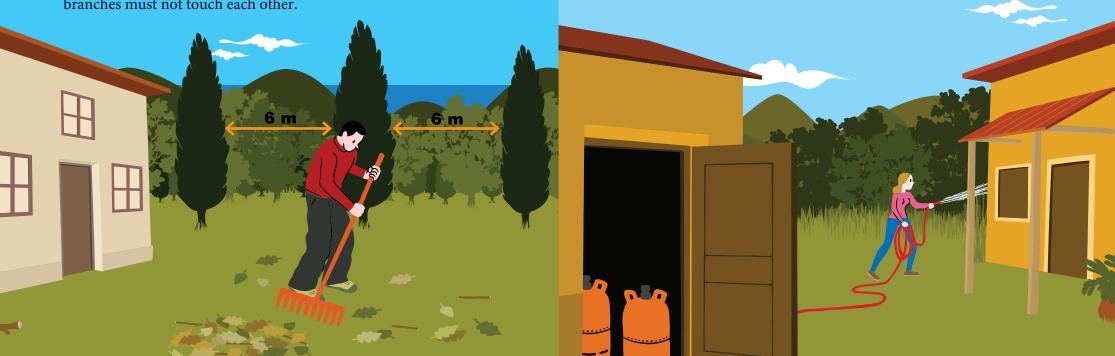
With forest fires the safest thing is to be far away from the danger, but actually moving away from it may not be. In fact, in some cases it can be very risky.

If you follow the tips in this guide, you can turn your home into a place that will give you safe refuge in the event of forest fire.

#### 1. In the home and garden

- Keep a strip of land free of vegetation and forest residue at least 2 metres wide around the building and 10 metres wide around the plot.
- In the garden, a minimum distance of 6 meters between the trees is recommended (increase the distance if the plot is on a slope). The branches must not touch each other.

- Keep the roof clear of dry leaves, branches and other organic matter.
- Store firewood away from the house.
- Be careful with the chimney! Protect it to prevent sparks or embers falling down it into the house.
- Have a hose long enough to go round the house.
- Store fuel (gas bottles, gasoil containers, etc.) in ventilated and protected enclosures.
- Have multipurpose ABC fire extinguishers for different classes of fire, especially in the kitchen, the attic and garage.



## How to keep your home and its surroundings safe from forest fires

- Don't use dry heather fences: they are highly flammable.
- Give priority to evergreen vegetation and high wood density trees (box, ivy, Holm oak, oak and olive).
- Don't use synthetic materials to build exterior walls, doors and windows (polycarbonates, methacrylate, PVC, etc.).

- You can use barbecues, but only if they are made of brick, fitted with fireguards and surrounded by a strip of land free of vegetation
- It is forbidden to light any kind of fire. If you want to burn plant residue or for any other type of activity involving fire (fireworks, soldering, ...): from March 15th to October 15th you must apply for authorization from the Ministry of Agriculture, Herding, Fishing, Nutrition and Environment via your local council. From October 16th to March 14th, you have to inform your local council.





# How to keep your home and its surroundings safe from forest fires

#### 2. In the streets of housing developments and at isolated houses

- Streets must be signposted at every junction. Cul-de-sacs must be signposted as such.
- Houses must be numbered correctly and visibly.
- The housing development must be equipped with fire hydrants.

- Do not park on roundabouts or in narrow streets so that emergency vehicles can get through.
- Street trees must not encroach on plots of land and must be cut back up to a height of 3.5 metres so that fire engines can get by.



# How to protect housing developments, isolated houses and their surroundings against forest fires

#### 1. Housing developments, isolated houses and surrounding areas

 Perimeter protection strips are legally mandatory strips of land that must surround housing developments, isolated buildings and installations in contact with the forest.

- In these strips nearly all scrub must be removed and trees partly cut back to reduce the strength of fires and prevent them from reaching the houses.
- They must be at least 25 metres wide and free of dry vegetation and with any trees pruned and cleared.
- Vacant plots must comply with the same conditions as the perimeter protection strips.



# How to protect housing developments, isolated houses and their surroundings against forest fires

#### 2. Access to housing developments and isolated houses

- Access roads must allow for the passage of fire engines and the evacuation of people.
- Wherever possible there should be two different public roads, one for entering and the other for leaving, each with a minimum useful width of at least 3 metres.
   If there is only one access road, it must be at least 5 metres wide plus the verges.
- Access roads and ditches must be kept clear of dry vegetation.

#### 3. Get ready for emergencies: the Self-protection Plan

- Self-protection plans for housing developments and isolated population centres must be drawn up.
- This plan will cover all the risks that may affect the housing development and all measures for prevention, detection and action in the event of a forest fire.
- It will be coordinated with the local council's Emergency Plan.





#### Forest fire warning systems

When a forest fire might affect housing developments or isolated houses, warnings and information may be given by different means:

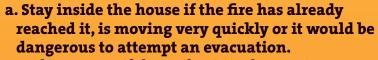
• Mobile loudspeaker systems on police and emergency vehicles, especially in housing developments.

- Radio stations, especially public ones, and local and regional television stations.
- In person door-to-door or by phone in the case of farms and isolated houses.
- Other systems may be brought in such as warning sirens.





## What to do in the event of an emergency in a populated area



In these cases, if the authorities do not give you other instructions, it is always safer to remain inside the house.

• Go into the house with the whole family and pets. It is important to stay together as a group.

 Remove any flammable objects from outside the house.

- Close all doors and windows and shut off gas, gasoil and other fuel stopcocks.
- Block any openings to prevent smoke and gas from the fire getting in and locate fire extinguishers.



# What to do in the event of an



# What to do in the event of an emergency in a populated area

- Walk in the opposite direction to the fire until you reach a safe place (designated by the authorities).
- First evacuate children, the elderly and people with breathing difficulties and anxiety problems. Do not waste any time.

- Allow free passage for emergency vehicles so they can operate.
- Help the emergency services to enter your home.
- Always follow this advice in accordance with the instructions of the police and fire brigade.



# What to do in the event of an emergency in a populated area

c. Actively protect your home in addition to following the advice about staying indoors.

The following actions should only be taken by adults who can tackle the fire:

- Position hoses so they can reach any part of the house using pumps powered by internal combustion engines.
- Extinguish small fires or ones that have just started with a hose or buckets of water.

 Protect yourself with long-sleeved cotton clothing, closed shoes and a mask or damp scarf or handkerchief for breathing.





# How to protect yourself from fire in woodland or open country

- Move away in the opposite direction to the fire and try to get to an area that has already been burnt.
- Wet a scarf or handkerchief and cover your face to avoid breathing in smoke.
- Avoid slopes and narrow valleys and do not take shelter inside wells or caves as the oxygen in them may quickly run out.
- If you are near the sea or a river, keep close to the water, and if necessary get into it.

# How to protect yourself if fire catches you by surprise in your car

- Stop in a protected place.
- Close doors and windows and switch off the car's ventilation.
- Turn on your headlights so you can be found in the smoke.



#### If you discover a forest fire

- Call 112 and give as much information as you can.
- Warn neighbours.
- If your housing development has a Self-protection Plan, do what it says.
- Follow the instructions of the fire brigade and the police.
- Listen to the radio to find out what's going on and what you should do.

- You need to know the access and evacuation roads for your housing development or farm.
- Follow the advice in this guide, prepare your home against fire and carry out the self-protection measures recommended for each situation.





# Are you protected against forest fires? ✓

#### Your house

#### 1. Windows and openings

- a. There are openings through which smoke from the fire can get in and the chimney does not have a fireguard.
- b. All openings can be closed and windows are made of glass and wood or aluminium.
- c. The house is completely sealed. The windows have double glazing and wooden shutters or metal blinds. The chimney has a fireguard.

#### 2. Vegetation around the house

- a. Some trees are in contact with the outside walls or a wall is covered with climbing plants and the roof is NOT clear of dry leaves, branches and other organic matter.
- b. There is a strip at least 2 metres wide free of vegetation around the outside walls and I occasionally clear the roof of dry leaves, branches and other organic matter.
- c. There is a 10 metre wide strip around the house in which there are no trees and I regularly clear the roof of dry leaves, branches and other organic matter.

#### 3. Hose

- a. There is no hose near the house.
- b. There is a hose, but it only reaches some parts of the house.
  - c. A hose reaches all parts of the plot and I have an internal
- combustion engine pump to operate it if there is a power outage.

#### 4. Fencing between plots

- oa. It is made of heather or a flammable synthetic material.
  - b. It is made of solid wood or vegetation that remains green
- during the summer and does not generate much plant residue.
- C. It is made of fireproof material (stone, ceramics, steel, etc.).

#### 5. Stored fuel

- a. There is an approved gas or petrol tank or stack of firewood within 10 metres of the house.
- b. There is an approved gas or petrol tank more than 10 metres from the house.
- c. I have a small amount of firewood and it is more than 10 metres from the house or my approved gas or petrol tank is underground or in a ventilated, fireproof enclosure.

#### Housing developments and isolated houses

#### 6. Signposting

- a. The streets leading into and out of the housing development are not signposted, cul-de-sacs are not signposted as such and the houses are not numbered in a visible way.
- b. The streets leading into and out of the housing development are well signposted, although cul-de-sacs are not, house numbers are not visible and water supply points are not
- indicated.
  - c. The streets leading into and out of the housing development and cul-de-sacs are well signposted, house numbering is visible and water supply points are indicated.

# Are you protected against forest fires? ✓

#### 7. Access

- a. There is only one road leading into the housing development, or there is more than one but they are narrow and single
- track.
  - b. There is more than one access road, but a large fire engine would not be able to get along them even though there are a
- number of places where two vehicles can pass one another.
  - c. There is more than one access road along which fire engines can enter the housing development and they are two-way.

#### 8. Perimeter protection strip

- a. There is no perimeter protection strip around the housing development.
  - b. There is a perimeter strip that is less than 25 metres wide around almost the entire housing development, or it does not
- comply with scrub removal and tree pruning requirements.
  - c. There is a perimeter strip that is at least 25 metres wide around the entire housing development which complies with scrub removal and tree pruning requirements.

#### 9. Vacant plots

- a. Vacant plots have lots of dry vegetation and high tree density.
- b. Most vacant plots are free of dry vegetation and have low tree density.
- c. All vacant plots are free of dry vegetation and have low tree density.

#### **Self-protection Plan**

#### 10. Self-protection Plan for emergencies

- a. I don't know if there is one. It makes no difference as I don't
- know what they are for.
  - b. The housing development has an Emergency Plan though
- we have never tried it out.
  - c. The housing development has an Emergency Plan, and we tried it out less than 3 years ago.

### Module: How to react in case of fire

#### Contents

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- 1. How to react in case of fire at home
- 2. How to react in case of fire in school
- 3. How to react in case of fire in public place
- 4. How to react in case of forest fire
- 5. How to react in case of fire at student dormitory
- 6. People with disabilities (hearing impaired)
- 7. More about fires call 112, fire extinguishers, evacuation plan, smoke detectors, electricity, cigarettes, candles, etc.

### HOW TO REACT IN CASE OF FIRES GENERAL INFORMATION



Fire is an uncontrolled burning that threatens human life and health, material values or the natural environment. The fire can be accidental or intentionally caused for the purpose of sabotage or as a result of pyromania, or it is caused unwantedly.



#### 1. How to react in case of fire at home

If the fire is very small, try to extinguish it with a fire extinguisher or water. If the fire is due to an electricity short-circuit, do not use water.



Keep your composure, do not panic

Proper action requires us to evacuate first and then call 112 for an emergency call.

Leave the building immediately. Do not stop and use evacuation routes (corridors, stairs, external stairs).

The use of elevators is prohibited during the evacuation.

During evacuation, close the doors behind you.

If you catch fire - stop, lie down, cover your face with your palms, and roll until the fire goes out.









If it is smoky, cover your mouth and nose with a towel or clothing, moving low to the ground.

Call 112
Say who is calling
Address of the building
Giving instructions on where the fire is and whether there are trapped people, animals, etc.

#### After leaving the building, do not go back for anything.

Use tapes, wet towels or clothes to close any cracks around the door. Open the windows and stand next to them.

#### 2. How to react in case of fire at school

The message for evacuation in a school can be submitted in several ways: on the radio, by a school bell, by announcing in the offices by a school employee.



When the alarm sounds, follow the teacher's instructions



If you notice that a classmate is missing, let the teacher know



The chosen students will carry out their missions



Leave everything where it is, don't miss out on taking anything



If you're out of the classroom, quickly join the evacuation group



circulates through the corridors and stairs in a row, without running or pushing



never go back, unless the teacher tells you



go to the meeting point and stay there until the teacher tells you

#### 3. How to react in case of fire in public place

If the fire is very small, try to extinguish it with a fire extinguisher or water. If the fire is due to a electricity short-circuit, do not use water.

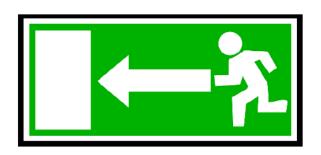




If you can't put out the fire, don't panic. Try to stay calm. Try to leave the building immediately, following the signs and evacuation routes marked on the evacuation schemes, incl. corridors, staircases, external stable staircases.

Never use elevators. If you find yourself in an elevator - get off it as quickly as possible and use the stairs.

When passing through a smoky room, stick to the walls, move low down - there the concentration of dangerous gases is the lowest.





Put a wet towel on your mouth and nose, wet your clothes, cover exposed parts of the body with wet towels.

If you catches fire - stop and take off your burning clothes or lie down, cover your face with your palms and roll until the fire goes out.

You are stuck? - fold your arms at the elbows and lean back, try to slowly free up space to move forward. After leaving the building, report the fire to 112.

If it is impossible to leave the building, try to get on the roof platform or go out on the balcony, closing the doors behind you. Call 112 to report your location.





If you are locked or blocked in a room, use tapes, wet towels or clothes to close any cracks around the door. Open the windows and stand next to them. Call 112 and explain your exact location.

#### HOW TO REACT IN CASE OF FOREST FIRE

Signs of a forest fire - smoke, smell of burnt or flames

Leave the area of the fire in the opposite direction to the wind

Report the fire to telephone 112 as soon as possible

Report the fire to a nearby hut or tourist point, forestry or town hall

If you have information about people near the fire, their lives depend on your timely and accurate communication.

Fire flapper from green branches?



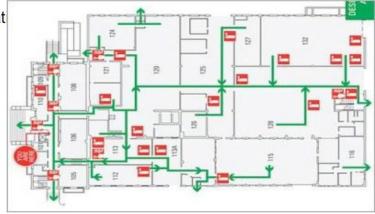




#### HOW TO REACT IN CASE OF FIRE AT STUDENT DORMITORY

Before a fire: inquire information about the dormitory evacuat scheme - evacuation route from your room





Very small fire:

Try to put it out with a fire extinguisher or water. If the fire is due to a electricity short-circuit, do not use water.



Don't panic, and think about the way to leave the building.

Leave the building immediately. Do not stop and use evacuation routes (corridors, stairs, external stairs).

During evacuation, close the doors behind you.



If your clothes catch fire, do not run. Instead, stop, lie down, cover your face with your palms, and roll until the fire goes out.

When you are safe, call 112

After leaving the building, do not go back for anything.

If you are locked or blocked in a room, use tapes, wet towels or clothes to close any cracks around the door. Open the windows and stand next to them. Call 112 and explain your exact location. You can leave a sign outside the window to indicate the exact location.









#### PEOPLE WITH DISABILITIES (HEARING IMPAIRED)

Very small fire: Try to extinguish it with a fire extinguisher or water





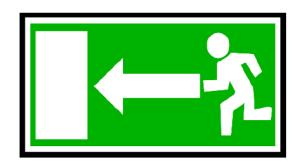
If you can't put out the fire, keep your composure, don't panic, and think about the way to leave the building.

The right action requires us to evacuate first.

Leave the building immediately.

Do not stop and use evacuation routes (corridors, stairs, external stairs).

During evacuation, close the doors behind you.



If you catch fire, do not run. Stop, lie down, cover your face with your palms, and roll until the fire goes out.

If the door or its handle is hot, if smoke comes out under or around it, do not open it.

If you find yourself in a crowd of people, fold your arms at the elbows and lean back, try to slowly free up space to move forward.

After leaving the building, do not go back for anything.

Locked or blocked in a room?

Use tapes, wet towels or clothes to close any cracks around the door. Open the windows and stand next to them. You can leave a sign outside the window to indicate the exact location.









### MORE ABOUT FIRES – CALL 112, FIRE EXTINGUISHERS, EVACUATION PLAN, SMOKE DETECTORS, ELECTRICITY, CIGARETTES, CANDLES, ETC.













#### Questions (choose the right answer)

#### When you see a room of your home entirely in flames, you should do the following:

- 1. Thinking about how to put out the fire, I will call 112; then I will use the elevator to evacuate.
- 2. When I am evacuating, I will walk upright in rooms filled with smoke.
- 3. I will use the routes for evacuation (corridors, stairs, etc.); close all doors behind you; when I am safe, I will call 112.

#### When you are stuck in a public building, you should:

- 1. Try to keep up with the pressure of the crowd.
- 2. I will leave myself in the flow of the crowd.
- 3. Fold your arms at the elbows and lean back, try to slowly free up space to move forward.

#### When you call 112, you should:

- 1. Tell who is calling; clearly and slowly say what the problem is; where is the emergency; answer if there are any questions.
- 2. I will give my phone to somebody else to call 112 and will go back in the building to gather more information about fire.

#### **Answers**

#### When you see a room of your home entirely in flames, you should do the following:

- 1. Thinking about how to put out the fire, I will call 112; then I will use the elevator to evacuate.
- 2. When I am evacuating, I will walk upright in rooms filled with smoke.
- 3. I will use the routes for evacuation (corridors, stairs, etc.); close all doors behind you; when I am safe, I will call 112.

#### When you are stuck in a public building, you should:

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- 1. Tell who is calling; clearly and slowly say what the problem is; where is the emergency; answer if there are any questions.
- 2. I will give my phone to somebody else to call 112 and will go back in the building to gather more information about fire.

### FIRE SAFETY-FIRE SAFETY-FIRE SAFETY-FIRE SAFETY CHECKLIST

DO

- If the fire is very small (for example: it's burning the curtains), try to extinguish it
  with a fire extinguisher or water.
- If the fire is due to an electricity short-circuit, do not use water.
- Keep your composure, do not panic, but think about the way in which you can leave the building.
- Proper action requires us to evacuate first and then call 112 for an emergency call.
- Use evacuation routes (corridors, stairs, external stairs).
- During evacuation, close the doors behind you.
- If your clothes catch fire, stop, lie down, cover your face with your palms, and roll until the fire goes out.
- If it is smoky, cover your mouth and nose with a towel or clothing, moving low to the ground as you exit the building.
- When you go outside and you are safe, use the telephone and call 112, saying
  who is calling, the address of the fire, the type of building, giving instructions on
  where the fire is and whether there are trapped people, animals, etc.
- If you are locked or blocked in a room, use tapes, wet towels or clothes to close any cracks around the door. Open the windows and stand next to them.
- Help your classmates to gather. Listen to the teacher who will give you information on whether to evacuate or stay in the classroom.
- If you find yourself in a crowd of people, fold your arms at the elbows and lean back, try to slowly free up space to move forward.
- Preventive measure: inquire information about the dormitory evacuation scheme
   evacuation route from your room (direction, corridors, staircase, assembly point outside the building).

#### DON'T DO

- If the fire has spread to an entire room, don't try to extinguish it with a fire extinguisher.
- If the fire is due to an electricity short-circuit, do not use water.
- Under no circumstances don't think about the dilemma: will we put out the fire and, if we fail, we call 112.
- The use of elevators is prohibited during the evacuation.
- If your clothes catch fire, do not run.
- If the door or its handle is hot, if smoke comes out under or around it, do not open it. This means that the fire is nearby.
- After leaving the building, do not go back for anything.
- When evacuating, do not separate from the column with students, do not run and use the corridors and stairs that are not affected by the fire
- If you find yourself in a crowd of people, do not try to keep up with the pressure of the crowd.
- In case of forest fire, you shouldn't go to the opposite direction to the wind and directly to the danger area.

# Module for children: How to react in case of fire

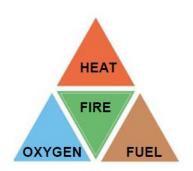
#### **Contents**

- 1. Introduction
- 2. How to react in case of fire at home
- 3. How to react in case of fire in school
- 4. More about fires call 112, evacuation plan, smoke detectors, electricity, cigarettes, candles, etc.



#### How to react in case of fires

Fire is an uncontrolled burning that threatens human life and health, material values or the natural environment









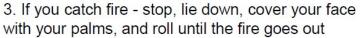








- 1. Leave the building immediately
- 2. Close the doors behind you
- with your palms, and roll until the fire goes out







towel

5. Call 112

After leaving the building, do not go back for anything

4. If it is smoky, cover your nose and mouth with a wet

will make the fire worse 2. Get down on the floor

1.Don't run - this

3. Roll over - this will put







#### 2. How to react in case of fire at school



When the alarm sounds, follow the teacher's instructions



If you notice that a classmate is missing, let the teacher know



The chosen students will carry out their missions



Leave everything where it is, don't miss out on taking anything



If you're out of the classroom, quickly join the evacuation group



circulates through the corridors and stairs in a row, without running or pushing



never go back, unless the teacher tells you



go to the meeting point and stay there until the teacher tells you

### MORE ABOUT FIRES – CALL 112, EVACUATION PLAN, SMOKE DETECTORS, ELECTRICITY, CIGARETTES, CANDLES, ETC.



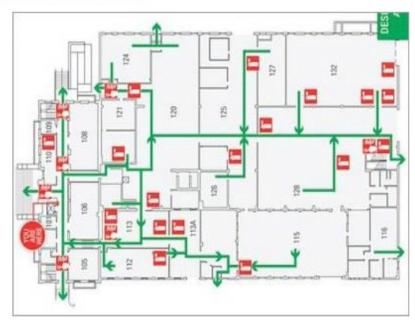














#### **EMERGENCY GUIDE FOR EARTHQUAKE**

Drop. Cover. Hold on.



In most situations, you can protect yourself if you immediately:

- **DROP down onto your hands and knees** before the earthquake knocks you down. This position protects you from falling but allows you to still move if necessary.
- COVER your head and neck (and your entire body if possible) underneath a sturdy table or desk. If there is no shelter nearby, get down near an interior wall or next to low-lying furniture that won't fall on you, and cover your head and neck with your arms and hands.
- **HOLD ON to your shelter** (or to your head and neck) until the shaking stops. Be prepared to move with your shelter if the shaking shifts it around.

#### At the time of an earthquake

#### While you are driving



- Without reducing speed suddenly, turn your hazard lamps on as you slow down and call attention to surrounding cars.
- Stop your car at the left side of the road after checking your surroundings.
- Stop the engine and wait in the car until the shaking stops. When the shaking stops, leave the car with the key in the ignition and the doors unlocked, and evacuate to a safe place.

#### At home



- Protect your head with a cushion or pillow, move away from large furniture, and hide under a sturdy desk or table.
- Open the door and secure an entrance/exit.
- In case of fire, put it out if possible. If you are not near the source of the fire, do not try to get close.
- Do not rush outside.

#### Outdoors and commercial facilities



- Follow the instructions of the guidance staff.
- To not rush to exits and stairs.
- Even if the elevators are working, to not use them to evacuate.
- Protect your head and keep away from glass shelves and lights.

#### In the elevator



- If you feel a tremor, press the buttons for every floor and get out of the elevator as soon as the door opens
- In the unlikely event that you are trapped, report conditions inside the elevator using the intercom.
- Elevators with people trapped inside are top priority. Remain calm and wait for rescue.

#### What to be careful of while you are in evacuation

#### Economy class syndrome



Sitting in the same position for a long time without moving your legs can cause blood clots (deep vein thrombosis) in your veins from poor blood circulation. A portion of a blood clot could get loose and flow into your lung, blocking a blood vessel there (pulmonary embolism). This is what is called deep vein thrombosis/ pulmonary embolism, or better known as economy class syndrome.

While you are staying in evacuation shelter due to a disaster, it is important not to stay in one position, but to move around as much as you can and exercise as needed. When you are in this situation, wearing loose clothing, and staying relaxed without tightening your belt can also prevent economy class syndrome.

#### What NOT to do:

**DO NOT** stand in a doorway. In modern houses and buildings, doorways are no safer, and they do not protect you from flying or falling objects. Get under a table instead!

**DO NOT** run outside! Trying to run in an earthquake is dangerous, as the ground is moving and you can easily fall or be injured by debris or glass. Running outside is especially dangerous, as glass, bricks, or other building components may be falling. You are much safer to stay inside and get under a table.

# Module 2: **How to react in case of earthquake**

# Content

### 1. Introduction

- 1.1 What are earthquakes?
- 1.2 Interesting facts about earthquakes!

# 2. How to react in case of earthquake in home or school

- 2.1. Earthquake preparation
- 2.2. Earthquake preparedness kit
- 2.3. Seven steps to earthquake safety
- 2.4. Earthquake safety tips

### 3. How to react during earthquakes

- 3.1. Earthquake preparations for children
- 3.2. Earthquake preparations for persons with special needs



### 1. Introduction

### 1.1 What are earthquakes?

Earthquakes are the shaking, rolling or sudden shock of the earth's surface. More than million earthquakes rattle the world each year.

Earthquakes can be felt over large areas although they usually last less than one minute. Earthquakes cannot be predicted - although scientists are working on it!

There are about 20 plates along the surface of the earth that move continuously and slowly past each other. As the plates move they put forces on themselves and each other. When the force is large enough, the crust is forced to break. When the break occurs, the stress is released as energy which moves through the Earth in the form of waves, which we feel and call an earthquake.



### 1. Introduction

### 1.2 Interesting facts about earthquakes!

- 80% of the world's earthquakes happen in the Pacific Ocean near Japan in a place called the 'Ring of Fire'.
- Sadly about 10,000 people die in earthquakes each year. Most of the deaths are when people are trapped in falling buildings.
- The largest earthquake ever recorded in the world was in Chile in 1960. It measured a 9.6 on the Richter Scale.
- They can cause huge waves in the ocean called tsunamis. Earthquakes can happen in any kind of weather.
- Alaska is the most seismically active state and has larger earthquakes than California.



### 2.1. Earthquake preparation (before, during and after)

### THINKS TO REMEMBER

- 1. Do not panic. Stay calm.
- 2. Be alert and keep your eyes open.
- 3. Stay away from buildings walls.
- 4. Triangle of life





### SUPPLY CHECK LIST

### Canned food

- first aid kit
- Flashing light
- Dust mask
- Operated radio
- 4 liters of water

**ALWAYS BE** 

PREPARED FOR

ADDITIONAL

**AFTERSHOCKS** 

### THINGS TO DO:

- > Hold periodic family drills
- Do and annual hazard hunt
- Find a place in the house you can hid in

# THINKS TO DO:

- 1. Evacuate the building;
- 2. Check for injuries;
- 3. Check for fire &gas leak:
- 4. Tune-in to local radio

BEFORE

### 2.2. Earthquake preparation and preparedness kit

### **Making Earthquake Preparedness Kit**

- Water
- Food
- Cas/water Shut-off tool
- Flashlight
- Radio
- Medications
- First aid kit
- Tool kit
- Eye wear
- **Personal documents**
- Cash
- Thick blanket
- Paper maps



### External or optional items

- Baby supplies
- Plastic sheeting
- Duck tape
- Cloves
- Towels
- Knife and scissors Raining gear

- Pet supplies
- Entertainment
- Signal devices
- Feminine sanitary
  - items
- Water purification Sleeping bags
  - tablets

### 2.3. Seven steps to earthquake safety





### **EARTHQUAKE SAFTY TIPS 101**



# BEFORE KNOW THE HAZARDS

✓ Always identify the safe areas and emergency exits

# PREPARE AND STORE

 ✓ assemble and emergency supply kit

#### HAVE A PLAN

- ✓ Regularly practice the evacuation procedures
- Prepare a family communication plan and post quake evacuation

### DURING DO DROP, COVER AND HOLD

✓ Drop to the floor and crouch beneath the table

## MOVE TO AN OPEN AREA

✓ Stay away from buildings and move to an area

### STOP AND STAY INSIDE THE CAR

✓ Pull over and stay inside the car

### **AFTER**

- ✓ Assess your situation
- Check family, coworkers or neighbors and assess health

### ESTORESTABLISH COMUNICATIONS

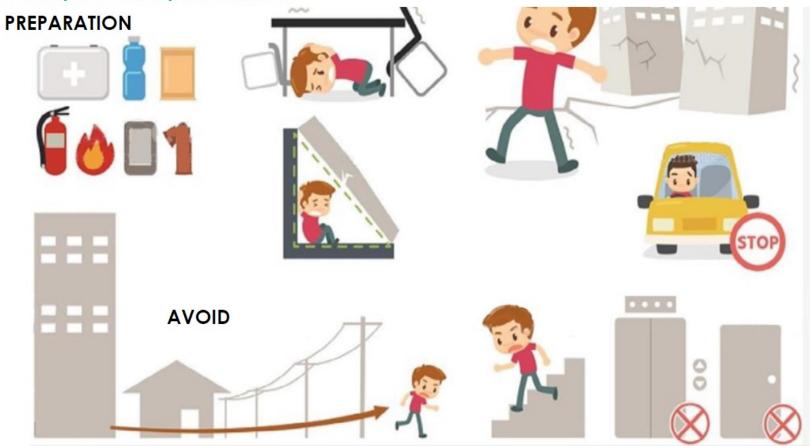
✓ Coordinate with family, friends and community according your communication plan

BE PREPARED FOR AFTER SHOCK

### 2.4. Earthquake safety tips



### 3.1. Earthquake safety for children



# 3.2. Earthquake safety for persons with special needs

### **Protect Yourself During the Earthquake**



### Questions? (choose the right answer)

# 1. Before the earthquake, what are the thinks that you should do:

- 1. Hold periodic family drills.
- 2. Wait until earthquake happened.
- 3. Do and annual hazard hunt.
- 4. Stay calm
- 5. Find a place in the house you can hid in

# 2. In a case of earthquake, what are the thinks that you must remember:

- 1. Do not panic. Stay calm.
- 2. Stay near to buildings walls.
- 3. Be alert and keep your eyes open.
- 4. Stay away from buildings walls.
- 5. Go in the buildings.
- 6. Triangle of life.

# 2. After the earthquake, what are the thinks that you should do:

- 1. Stay calm.
- 2. Check for injuries.
- 3. Stay near to buildings walls.
- 4. Evacuate the building.
- 5. Check for fire & gas leak.
- 6. Tune-in to local radio.

### the right answer

- 1. Before the earthquake, what are the thinks that you should do:
- 1. Hold periodic family drills. √
- 2. Wait until earthquake happened.
- 3. Do and annual hazard hunt.  $\sqrt{\phantom{a}}$
- 4. Stay calm
- 5. Find a place in the house you can hid in  $\sqrt{\phantom{a}}$
- 2. In a case of earthquake, what are the thinks that you must remember:
- 1. Do not panic. Stay calm. √
- 2. Stay near to buildings walls.
- 3. Be alert and keep your eyes open.  $\sqrt{\phantom{a}}$
- 4. Stay away from buildings walls. √
- 5. Go in the buildings .
- 6. Triangle of life. √

- 2. After the earthquake, what are the thinks that you should do:
- 1. Stay calm.
- 2. Check for injuries. √
- 3. Stay near to buildings walls.
- 4. Evacuate the building. √
- 5. Check for fire & gas leak. √
- 6. Tune-in to local radio. √

# Module 2:

# How to react in case of earthquake (for children)

# CONTENT

- 1. INTRODUCTION
- 2. HOW TO REACT DURING THE EARTHQUAKE IN SCHOOL
- 3. HOW TO REACT DURING THE EARTHQUAKE AT HOME
- 4. HOW TO REACT DURING THE EARTHQUAKE OUTDOOR
- 5. AFTER THE EARTHQUAKE

### 1. Introduction

What are earthquakes?

Earthquakes are the shaking, rolling or sudden shock of the earth's surface. More than million earthquakes rattle the world each year.

When the break occurs, the stress is released as energy which moves through the Earth in the form of waves, which we feel and call an earthquake.



### 2. How to react during the earthquake in school









Follow procedures

Hold under the desk

Do not enter elevator



Secure the exit



Cover your head

### 3. How to react during the earthquake at home



Do not panic. Stay calm.



Move to an inner wall or corridor, door frame or the structural frame





Stay away from tall shelves



Do Not Rush Outside

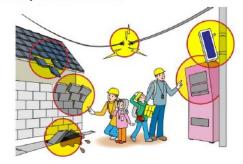
Choose shelter which will provide an airspace if it collapses

Stay away from buildings



Move to an open area

### 4. How to react during the earthquake outdoor



Avoid Fallen Power Lines.



Stop driving and stay in the car

# 5. AFTER the Earthquake





Stay with your classmates at school



Reconnect with your family

Watch for falling objects - plaster, bricks, light fixtures, pots and pans

### Earthquake Safety Checklists

Checklist 1. Have on Hand for Any Emergency Ideas for Home, Workplace, and Car

Because you don't know where you will be when an earthquake occurs, prepare a Disaster Supplies Kit for your home, workplace, and car.



#### Food.

- Choose salt-free crackers, whole grain cereals, and canned goods with high liquid content.
- Stock foods that do not require refrigeration, cooking, water, or special preparation.
- Remember to include foods for infants and those with special dietary needs.



**Flashlights and spare batteries.** Keep a flashlight beside your bed, at your place of work, and in your car. Do not use matches or candles after an earthquake.



**Water.** Store at least 4 liters of water per person per day and be prepared for at least a 72-hour period. A normally active person needs at least a ½ gallon of water daily just for drinking.



Portable, battery-powered radio or television and spare batteries.



First aid kit and manual.



Fire extinguishers. Keep a fire extinguisher at home and in your car.



**Special needs.** Keep a supply of special needs items, such as medications, extra eyeglasses, contact lens solutions, hearing aid batteries, items for infants (formula, diapers, bottles, and pacifiers), sanitation and hygiene items (moist towelettes and toilet paper), and any other items unique to your family's needs.



Prepare customized emergency plans for people with disabilities in advance.



**Tools.** In addition to a pipe wrench and crescent/adjustable wrench (for turning off gas and water valves), you should have a lighter, a supply of matches in a waterproof container, and a whistle for signaling rescue workers.



**Important papers and cash.** Be sure to have a supply of cash for use if ATMs, banks, and credit card systems are not operating.



**Clothes.** If you live in a cold climate, you must think about warmth because you might not have heat after an earthquake. Think about your clothing and bedding supplies.



**Pet needs.** Identify a shelter area for your pet, gather the necessary supplies, ensure that your pet has proper ID and up-to-date veterinarian records.

Checklist2: When the Ground Stops Shaking



### Check for Injuries.



Check for fires, if possible, put out small fires.



Check electrical power, if there is damage to your home's electrical wiring, switch off electrical power. If the situation is unsafe, leave your home and seek help.



Check the building for cracks and damage, particularly around chimneys and masonry walls.



Check to see that water and sewage lines are intact before using the toilet. Plug bathtub and sink drains to prevent sewage backup.



Check closets and cupboards. Open doors cautiously. Beware of objects tumbling off shelves.



### **EMERGENCY GUIDE FOR SNOW – COVERED AND ICY ROADS**

#### When a snow disaster occurs

If you live in a mountainous or rugged area that has problems with snowfall

- Stock up on heating material and food for several days.
- Provide snow clearing equipment (e.g. shovels).

#### **DURING SNOWFALL OR BLIZZARD**

#### If you are at home:



- Keep warm and stay in it as long as you can.
- Keep it warm and keep it as long as possible.
- Do not leave the children outdoors; do not let them stay outside if they are not allowed to do so.
- Check the water mains, pipes and solar panel glass.
- Clear snow while it is fresh from the front door of the house, yard, and sidewalk where it belongs and don't let it freeze.
- If you have heart or respiratory problems, avoid shoveling or clearing snow, as well as any related outdoor work.

### If you are in the car:



- Avoid driving in rugged mountainous areas.
- Avoid driving in rough terrain. Avoid driving in mountainous areas.
- Keep a safe distance from vehicles ahead.
- Stay in the car if it comes to a standstill.

Place a brightly coloured cloth on the radio antenna or other prominent place so that rescue teams can locate you. Turn on the engine for 10 minutes per hour and keep the exhaust clear of snow.

- Always keep a small backpack with dry food and bottled water in the car at all times so that you can use it if you are stranded in the car until help arrives.
- Always have a pair of thick gloves in the car so that you can more easily put on chains or remove snow from it.
- As soon as you notice that your car's traction is changing, slow down. In case of a
  restart, start at a very low speed.
- If you have never driven in snow conditions before, or if you are having difficulty, do not attempt to move your car while driving.

### If you are outdoors:



- Get to a safe place without exposure to the blizzard.
- Dress in several layers of light and warm clothing instead of one heavy garment and wear warm waterproof boots. Prefer a waterproof outer garment.
- Be careful when travelling in areas where snowfall is forecast.
- Use non-slip chains if it is absolutely necessary to travel by car. It is best to travel during the day using main roads. Inform your loved ones of the route you will take.
- Prefer public transport for city travel.
- If you are walking on a snowy surface, always take small, slow and steady steps.
- If there is a specific problem, always wear elbow and knee protection.
- Eating a small amount of certain foods (e.g. raisins) is essential if you are walking or staying outside for a long time in snowfall or in very cold conditions.
- Avoid walking too close to trees whose branches are snow-laden to avoid the risk of snowdrifts.
- If you notice an individual tree with a significant snow load leaning or any other problem, notify the appropriate authorities immediately.

#### **PAGE**

#### **PREPARE**



- In areas where frost has developed, caution is required when driving. Be aware of road conditions and have anti-skid chains.
- If you are moving on foot, wear appropriate shoes to avoid injury due to slipperiness.
- Avoid spilling even a small amount of water on the road or pavements, as even this amount

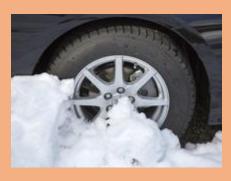
can cause a car or pedestrian to slip and cause an accident.

### Driving on snow-covered roads



- Be careful on skidding due to sudden lane changes or any other sudden maneuvers.
- Step on the accelerator gradually and start slowly.
- If there is snow on the road, it's important to put your snow chains on as soon as possible.

### If you get stuck on a snow-covered road



- If your tires skid or get stuck in fresh snow, slowly move the car back and forth tread down the snow around the tires.
- If you find a gravel box at the roadside, scatter the gravel around the driving wheel.

### When you get stuck in heavy snowfall and cannot move



- If you're in a whiteout such as a snowstorm, turn on your hazard lamps and stop at a safe place.
- If the exhaust port is plugged with snow, you are at risk of carbon monoxide poisoning.
- While waiting for rescue to arrive, clear at least enough snow for the exhaust to vent.

### What you want to have before driving on snow-covered roads



- Be sure to have snow chains and a jack, even when your car with snow tires on.
- In the wintertime, you should prepare booster cables for contingencies that may arise.
- Blankets will not only protect you from the cold but also help to escape a snow-covered road.

### Hazards along snow-covered roads



- Airy bridges and overpasses, and near the inlet and outlet o
- Be especially careful on icy roads, as they are slipperier than snow-covered roads.
- Drive by landmarks such as the arrows and reflector poles along the edge of the road.