

ENGLISH FOR SPECIFIC PURPOSES FIRE and RESCUE

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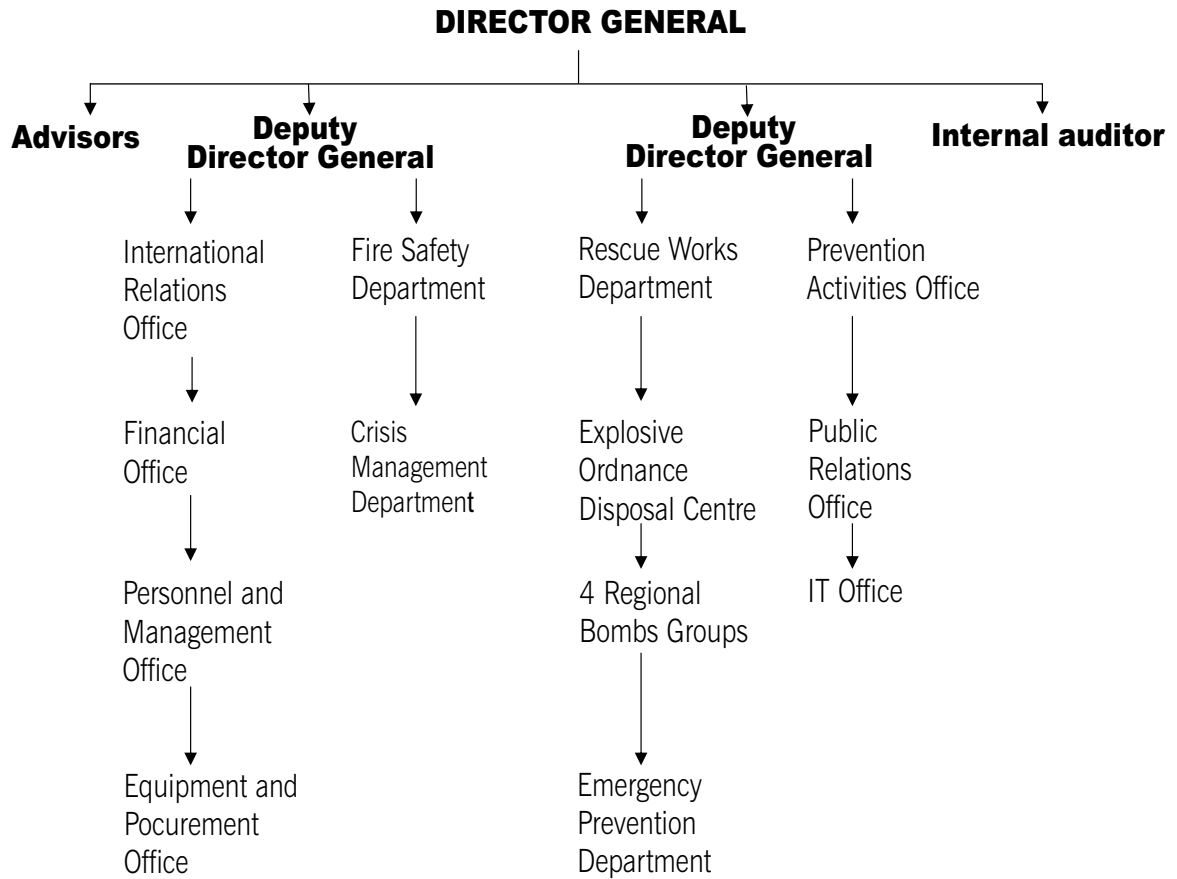
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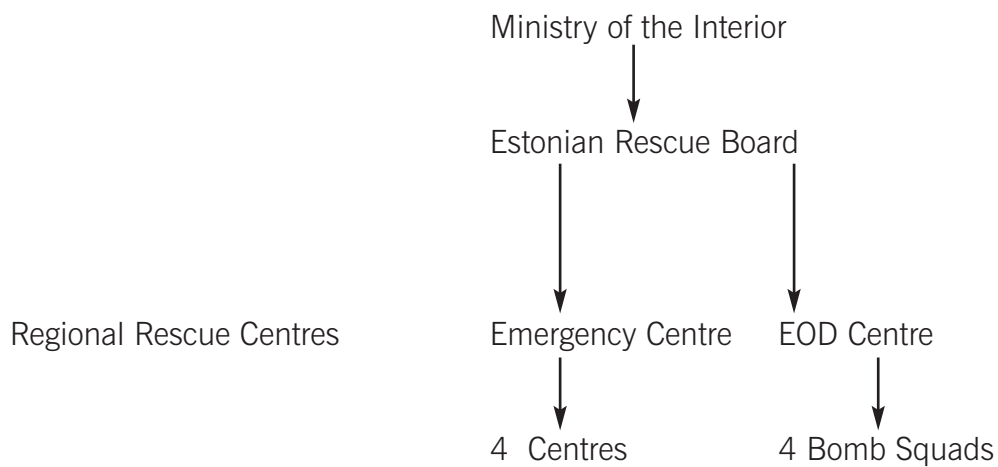
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CHAPTER 1. OPERATIONAL WORK

Estonian Rescue Board



1. ORGANIZATION OF ESTONIAN RESCUE SERVICES



2. OVERVIEW OF THE ESTONIAN RESCUE SERVICES

Pre – task:

- *Brainstorm on facts about the Estonian Rescue Services and their tasks.*

Task:

- *Read about the Overview of the Estonian Rescue Services.*

OVERVIEW OF THE ESTONIAN RESCUE SERVICES **The Estonian Rescue Board**

The Estonian Rescue Board is an autonomous governmental institution within the Ministry of Internal Affairs. The Rescue Board is responsible for inland fire and rescue services in Estonia. In general the Rescue Board has administrative duties, but there are also some operational units directly under the Rescue Board's control. There are several Boards within the Ministry of the Interior including: Rescue Board, Police Board and Board of Borderguard. Duties of the Rescue Board include:

- ▶ International Point of Contact (POC) for civil emergencies
- ▶ Administration of 112 emergency call centres
- ▶ Inspection and co-ordination of County Fire and Rescue Services
- ▶ Firefighting and rescue training
- ▶ Explosive Ordnance Disposal (EOD) or bomb disposal
- ▶ International Disaster Relief by means of the Estonian Disaster Relief Team (EDRT)
- ▶ Fire safety policy development and inspection of fire safety standards
- ▶ National Civil Emergency Planning

To improve firefighting, rescue and EOD, there are three Military Rescue Companies subordinated to the Estonian Rescue Board.

Rescue at sea is the responsibility of the Borderguard and mine clearance at sea is handled by the Estonian Navy.

Emergency Centres

A single emergency call number 112 is in use in Estonia for calling for fire and rescue service and ambulance. There are four regional Emergency Centres.

The tasks of Emergency Centre include:

- Receiving emergency calls
- Determining the extent of an accident
- Deploying
- Fire fighting and/or ambulance vehicle
- Co-ordination of further rescue actions on-site
- Submitting, processing and filling the information

Estonian Disaster Relief Team

Estonian Disaster Relief Team is organised and supervised by the Estonian Rescue Board. EDRT was established in 1997 to help fight a large forest fire in Estonia and to take part in NATO/Partnership for Peace exercise Co-Operative Safeguard '97. EDRT is called upon on an ad hoc basis and generally is ready to be deployed within 12-24 hours after the decision to provide assistance has been made.

Search and Rescue (SAR) unit's training and the team's general principles are in accordance with IN-SARAG guidelines. It means with INSARAG principles, the team can be mobilised in less than 24 hours (target 10 to 12 hours) and the Team is self-sufficient in disaster area for minimum of 2 weeks (except fuel and transport).

There are more than 80 well-trained persons in team reserve now. Reserve members are mostly

drawn from professionals in the fire & rescue or medical services. However reserve members may also be from other backgrounds. Since 1997, over 30 reserve members have been abroad on training courses for international rescue operations (NATO/PfP, European Union Civil Protection Mechanism and UN-OCHA). Because of being involved in many international operations the team members have to make through the vaccination programme.

Response co-ordination centre

The Response Co-ordination Centre is 24h national rescue control and co-ordination centre as well as the international point of contact that receives and forwards information and assistance requests in case of natural or manmade disasters.

Explosive Ordnance Disposal Centre

Explosive Ordnance Disposal Centre, which involves high quality trained professionals, high class dogs, and well equipped squad, is established to cope with the bomb and EOD threats in Tallinn and, if necessary, throughout the whole country. It is the only structure in the country to deal with EOD.

Maritime search and rescue

Maritime search and rescue is organised by the Estonian Borderguard. The Border Guard runs the Maritime Rescue Co-ordination Centre (MRCC Tallinn) - Estonian international point of contact in the field of maritime rescue - whose task is to provide alerting service and to co-ordinate search and rescue within the Estonian maritime search and rescue region. Harbour emergency and rescue units carry out rescue work in harbours.

Aeronautical search and rescue

Since January 2001, search and rescue in civil aviation is organised and carried out by the Estonian Board of Borderguard in close co-operation with the Estonian Air Navigation Services Aerial Control Centre (ACC). The joint Maritime and Aeronautical Rescue Co-ordination Centre (MRCC/ARCC Tallinn) which is run by the Borderguard is the international point of contact (POC) for civil aviation in case of emergency. ACC tasks include the alerting service and ARCC tasks include conducting and co-ordinating search and rescue within the Estonian maritime and aeronautical search and rescue region. Airport emergency services, which operate in close co-operation with municipal fire and rescue services, carry out rescue work at airports and in their vicinity.

(Adapted version www.rescue.ee)

Task cycle:

1. Discuss the text with your neighbour. Compare your facts about the Estonian Rescue Services with the facts in the text.
2. Listen to the other peoples' opinions.
3. Discuss the questions below.

1. What is the Rescue Board responsible for?
2. What are the main duties of the Rescue Board?
3. What is the responsibility of the Borderguard?
4. What are the tasks of the County Rescue Services?
5. What are the tasks of Emergency Centres?

4. Match the words with their definitions.

- | | |
|-----------------------|--|
| 1. bomb disposal | a) the tools, machines, or other things that you need for a particular job or activity |
| 2. duty | b) to get rid of bombs |
| 3. staff preparedness | c) a legal or moral obligation |
| 4. equipment | d) training the crew, personnel, etc. |
| 5. inspection | e) an official process of checking that things are in the correct condition or that people are doing what they should. |

5. Fill in the table according to the information in the text above.

ORGANIZATION	DUTIES	ABBREVIATIONS
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

Language focus:

- ▶ the teacher highlights the vocabulary
- ▶ the teacher highlights grammar (tense system)

homework 1: describe one part of the Estonian Rescue Services in more detail (e.g. 112 Emergency Centre, Võru Fire Department, etc.) Write 150 words.

homework 2 : grammar exercise 1 (tenses)

homework 3 : Read the text about the history of firefighting in Britain. Compare the history of firefighting in Britain and Estonia to find similarities. (Use Internet to find relevant information)

homework 4: Compare Estonian (www.rescue.ee) and Finnish Rescue Services (<http://www.pelastustoimi.fi/en/>). Write 150 words.

6. Complete the text with the correct form of the verbs, Present Simple active or passive.

The Estonian Rescue Board _____ (BE) an autonomous governmental institution within the Ministry of Internal Affairs. Operational services _____ (ORGANISE) at county level and the Rescue Board _____ (HAVE) administrative duties.

Each out of 15 Estonian counties as well as country capital Tallinn as a national service authority _____ (HAVE) its own County Rescue Service with tasks to run.

Some of the tasks of Emergency Centre _____ (INCLUDE) receiving emergency calls and determining the extent of an accident.

Estonian Disaster Relief Team _____ (ORGANISE) and _____ (SUPERVISE) by the Estonian Rescue Board. Search and Rescue (SAR) unit`s training and the team`s general principles _____ (BE) in accordance with INSARAG guidelines.

The Response Co-ordination Centre _____ (BE) 24h national rescue control and co-ordination centre as well as the international point of contact that _____ (RECEIVE) and _____ (FORWARD) information and assistance requests in case of natural or manmade disasters.

Military Rescue Companies _____ (INVOLVE) according to necessity and adopted action plans.

The joint Maritime and Aeronautical Rescue Co-ordination Centre which _____ (RUN) by the Borderguard _____ (BE) the international point of contact (POC) for civil aviation in case of emergency.

3. FIREFIGHTER'S JOB HAZARDS AND PERSONAL SAFETY

Pre – task:

- Draw a mindmap on words, phrases and ideas.
- Bring theme round to Is it dangerous to be a rescuer? Has anyone experienced the hazards of being a firefighter/rescuer? What can be done to keep hazards away?
- Add other vital topic words that will come in the text.

Task:

1. Read about Firefighter's Job Hazards and Personal Safety.

Firefighter's Job Hazards and Personal Safety



Every year, fires and other emergencies take thousands of lives and destroy property worth billions of dollars. Firefighters help protect the public against these dangers by rapidly responding to a variety of emergencies. They are frequently the first emergency personnel at the scene of a traffic accident or medical emergency and may be called upon to put out a fire, treat injuries, or perform other vital functions.

During duty hours, firefighters must be prepared to respond immediately to a fire or any other emergency that arises. Because fighting fires is dangerous and complex, it requires organization and teamwork. At every emergency scene, firefighters perform specific duties assigned by a superior officer. At fires, they connect hose lines to hydrants, operate a pump to send water to high pressure hoses, and position ladders to enable them to deliver water to the fire. They also rescue victims and provide emergency medical attention as needed, ventilate smoke-filled areas, and attempt to salvage the contents of buildings. Their duties may change several times while the company is in action. Sometimes they remain at the site of a disaster for days at a time, rescuing trapped survivors and assisting with medical treatment.

Firefighters work in a variety of settings, including urban and suburban areas, airports, chemical plants, other industrial sites, and rural areas like grasslands and forests. In addition, some firefighters work in hazardous materials units that are trained for the control, prevention, and cleanup of oil spills and other hazardous materials incidents. Workers in urban and suburban areas, airports, and industrial sites typically use conventional firefighting equipment and tactics, while forest fires and major hazardous materials spills call for different methods.

In national forests and parks, forest fire inspectors and prevention specialists spot fires from watch-towers and report their findings to headquarters by telephone or radio. Forest rangers patrol to ensure travelers and campers comply with fire regulations. When fires break out, crews of firefighters are brought in to suppress the blaze using heavy equipment, handtools, and water hoses. Forest firefighting, like urban firefighting, can be rigorous work. One of the most effective means of battling the blaze is by creating fire lines through cutting down trees and digging out grass and all other combustible vegetation, creating bare land in the path of the fire that deprives it of fuel. Elite firefighters, called smoke jumpers, parachute from airplanes to reach otherwise inaccessible areas. This can be extremely hazardous because the crews have no way to escape if the wind shifts and causes the fire to burn toward them.

Between alarms, firefighters clean and maintain equipment, conduct practice drills and fire inspections, and participate in physical fitness activities. They also prepare written reports on fire incidents and review fire science literature to keep abreast of technological developments and changing administrative practices and policies.

Some firefighters become fire investigators, who determine the origin and causes of fires. They collect evidence, interview witnesses, and prepare reports on fires in cases where the cause may be arson or criminal negligence. They often are called upon to testify in court.

Working Conditions

Firefighters spend much of their time at fire stations, which usually have features common to a residential facility like a dormitory. When an alarm sounds, firefighters respond rapidly, regardless of the weather or hour. Firefighting involves risk of death or injury from sudden cave-ins of floors, toppling walls, traffic accidents when responding to calls, and exposure to flames and smoke. Firefighters may also come in contact with poisonous, flammable, or explosive gases and chemicals, as well as radioactive or other hazardous materials that may have immediate or long-term effects on their health. For these reasons, they must wear protective gear that can be very heavy and hot.

How much money do firefighters make?

According to the International City-County Management Association, average salaries in 2004 for sworn full-time positions were as follows:

	MINIMUM ANNUAL BASE SALARY	MAXIMUM ANNUAL BASE SALARY
Fire chief	\$68,701	\$89,928
Deputy chief	63,899	79,803
Assistant fire chief	57,860	73,713
Battalion chief	58,338	73,487
Fire captain	49,108	59,374
Fire lietenant	44,963	53,179
Fire prevention/code inspector	43,297	54,712
Engineer	41,294	52,461

Fire fighters who average more than a certain number of hours a week are required to be paid overtime. The hour's threshold is determined by the department during the fire fighter's work period, which ranges from 7 to 28 days. Fire fighters often earn overtime for working extra shifts to maintain minimum staffing levels or for special emergencies.

Fire fighters receive benefits that usually include medical and liability insurance, vacation and sick leave, and some paid holidays. Almost all fire departments provide protective clothing (helmets, boots, and coats) and breathing apparatus, and many also provide dress uniforms. Fire fighters generally are covered by pension plans, often providing retirement at half pay after 25 years of service or if the individual is disabled in the line of duty.

What is the Job Outlook?

According to the U.S. Department of Labor, most job growth will occur as volunteer fire fighting positions are converted to paid positions in growing suburban areas. In addition to job growth, openings are expected to result from the need to replace fire fighters who retire, stop working for other reasons, or transfer to other occupations.

Layoffs of fire fighters are uncommon. Fire protection is an essential service, and citizens are likely to exert considerable pressure on local officials to expand or at least preserve the level of fire protection. Even when budget cuts do occur, local fire departments usually trim expenses by postponing purchases of equipment or by not hiring new fire fighters, rather than through staff reductions.



Task cycle:

1. Work individually. Spend five to ten minutes thinking about the firefighters' hazards and personal safety. Ask your teacher for any vocabulary you need.
2. Discuss the text with your neighbour.
3. Write down any hazards you can add to the list.
4. Spend a few minutes preparing a short overview of your thoughts.
5. Listen to the other people's opinions.

6. Categorise the words you think are important from the text:

nouns	verbs	adjectives	any other

7. Perform an interview between a journalist and a rescue worker. The column in the magazine '112' should give a real picture of rescue workers' hazardous job. Use the vocabulary in exercise 6.

8. Write a column to the magazine '112' listing the hazards of rescue workers' job.

9. Design an advert to a local newspaper looking for full-time rescue workers. The advertisement below serves as an example.

The example: Young helpers (18-25) needed in our summer camp for 10-14 year olds. Duties include helping with games and other activities.
Helpers must speak English or French and be able to work at any time, including some evenings, from 5th-25th July. Apply in writing to Ben Carroll.

Language focus:

- ▶ the teacher highlights the vocabulary
- ▶ the teacher highlights grammar

homework: write a 250-word essay comparing two professions - a rescuer and a police/prison officer

4. RESCUE WORKER'S DAY

Pre – task:

- Brainstorm on words, phrases and ideas.
- Bring theme round to What is a rescue worker's day like? What are firefighters' tasks on duty?
- Add other vital topic words that will come in the text.

Task:

Read the text about Firefighter' s Professional Life.

Firefighter's Professional Life

'The mere fact that you are a firefighter - paid, industrial, institutional, or volunteer - in no way makes you a professional. You become a professional firefighter only when you exhibit the knowledge, attitude, skills, and habits that have been honed to the highest degree by education, training, experience, and LOVE for your profession.'

'The Example and conduct you display at the scene is, and will always be, the only yardstick by which your peers and the people you serve can judge you and the organization you represent.'

**'To honour God, to
protect our fellow man'**

That judgment will form the opinion of each and every person involved with you and your organization, and that judgment will precede you in the form of your reputation as a "PROFESSIONAL" (<http://www.avfd.com/poems/01.htm>)

In the fire service, knowledge is spread around and shared. Whenever a postfire reports are made, we learn what each firefighter saw, thought, and did at a particular incident. We learn what mistakes were made and what was done correctly, and we discuss how the operation could have been improved.

When we attend a drill or a firefighting seminar, we learn from the experience of others. At social gatherings, firefighters are notorious for forming groups and talking shop. They may discuss their latest fire, a civilian death, a firefighter's injury, a new tactic that either worked or failed. The knowledge gained in drills, seminars, and informal conversation is stored away in each firefighter's brain, because each one of them knows that, to stay alive in a burning building, he needs knowledge of fire behavior, building construction, hazardous materials, operational procedures, and many other information. Most of all, a firefighter needs experience to make the life-and-death decisions required to successfully navigate a fire scene.

New firefighters naturally have less experience than their older counterparts, but they respond right alongside their more experienced colleagues whenever an alarm sounds. The newcomers (probies) are at a disadvantage because of their lack of knowledge. As a result, he often pays more attention to the stories told round a keg of beer by the old timer.

Throughout his career, this probie will hear and tell many more stories, until he is the old timer himself. His knowledge will increase far beyond the level of his direct experiences alone, and he in turn will increase the knowledge of others.

As firefighters, we repeatedly respond to certain types of incidents. The routine calls aren't the most exciting runs that we go on, nor are they the kind that we sit around and discuss at social gatherings and in sessions. Sometimes we don't even give much thought as to how to handle them or to the threat that they pose. Much has been written about structural collapse, confined spaces, and hazardous materials, but where is it that we spend most of our time? The main portion of a firefighter's

professional life is spent putting out car fires, removing burning pots from stoves, and shutting down malfunctioning oil burners. A simple mattress fire is nothing compared with a multiple alarm in a paint factory that results in structural collapse and a river of burning paint flowing down the street. Most of us will never even see a burning paint factory, but mattress fires occur in every community, sometimes with deadly results. You have probably received training in building collapse and exposure protection, but have you trained recently on mattress fires? Preparing for the major events is important, but we must also take the time to analyze and train on those calls that we respond to over and over, day after day. The question is whether we are alert to the damages of such a routine response or whether we remain too confident until the situation gets out of control and overtakes us.

Task cycle:

1. Work individually. Spend five to ten minutes thinking about the firefighters` job.
2. Ask your teacher for any vocabulary you need.
3. Discuss the text with your neighbour.
4. Spend a few minutes preparing a short overview of your thoughts.
5. Listen to the other people`s opinions.
6. Look at the spidergram below. Work out a possible story-line from the clue words and expressions.

3 days	rescue operations	postfire report		
equipment	drill	training brigade	firefighter`s injury	
rescue service	probie	shift	daily proceedings	collapse
change	chemicals		deadly results	alarm lamp

24 HOUR PREPAREDNESS

stuck in	container	Friday	cleaning
sport games	check	accident place	power saw
respond incidents	building	theoretical subjects	fire engine
skill	life –and death decisions		line up

7. Find out what your fellow-students think about the current professional issue ‘Is it prestigious to be a rescuer in today`s society?’
8. What is the mission/vision of the Rescue Service?
9. Is there a creed for firefighters in Estonia?

Language focus:

- ▶ the teacher highlights the vocabulary
- ▶ the teacher highlights grammar

homework: Write an essay (300 words): ‘Is it prestigious to be a rescuer in today`s society?’

5. FIREFIGHTING EQUIPMENT AND ITS MAINTENANCE

Pre – task:

- Brainstorm on words connected to firefighting equipment.

Task

Read the text about Rescue Vehicles and Equipment.

Rescue Vehicles and Equipment

At first we look at the types of rescue vehicles (fire engines) that are used in Estonia. These include a main car (universal fire engine), a tanker (4000 litre tank), a rescue service vehicle, a hoisting machine, lead unit, technical support (pump house, hose wagon, etc.), other technique (bulldozer, crane, ladder unit etc), ambulance car, floating technique.

The main car can be used in case of very different accidents, and the crew is also transported to the accident scene by this. The car can hold some tons of water, and some hundred litres of foam substance, a hose reel with over 200 metres of hose and a pump. Different water pipes allow forming long strong spurts, cause fog and water curtains. The equipment of the main car also contains some ladders (can be used as stretchers, bridges), hand tools as axes, bars, shovels, saws, cutters, hooks, etc, also the primary firefighting equipment as powder and CO2 extinguisher and a bucket.

Better equipped cars also have electric generators and spotlights, hydraulic tools together with an oil pump, pneumatic air bags a smoke pump or a big fan, etc. The main car may also have equipment for rescue from the surface (board, boat, 30-metre security string and calypso), equipment for rope rescue (ropes, etc.) or any other special equipment.

Fire engines usually do not have a walk-through area. It is possible to get the equipment only from exterior compartments. It is especially good at an emergency scene because the rescuer does not have to enter the vehicle to get needed equipment. The negative side could be that the number of rescuers transported to the scene is limited because of not enough space inside the vehicle.

Depending on a vehicle, there is much equipment in rescue vehicles. You can find systems which have air bottles in them to refill cylinders while still at the fire scene; lighting equipment when more light is needed; A-frames and booms to lift whatever is needed; air compressors etc.

It is very important that a rescuer can handle the use of all their equipment. A lot of training must be done to be a professional. Rescuers must know how and why a tool works, when to use it, and what it will and will not do. Rescuers should wear the protective clothing at all times when using any of the equipment. The most common hand tools are striking tools, cutting tools, chopping tools, saws, knives, lifting tools, winches, chains, etc.

The environment in which rescuers must work requires that they must wear the best personal protective equipment (PPE). PPE that every firefighter must wear while putting out fire, etc includes:

- cotton or synthetic underwear,
- long fireproof, waterproof trousers and jacket (firefighter's usual clothing in fire station),
- thick trousers and jacket with several layers to protect from mechanical and thermal influences,
- a helmet (a hard hat) with visor and a very wide edge to protect the neck, and a balaclava.
- thick leather or synthetic gloves,
- rubber boots or boots,
- a belt with carbines and a hatchet.

The whole dry equipment weighs 12 kilos. While smoke diving, firefighters also have to carry a breathing apparatus (SCBA) with a mask and a radio station (15 kilos). Sometimes special clothing is needed in case of extreme heat, cold or chemicals. SCBAs in Estonia work with compressed air and enable breathing about half an hour.

Special operations, such as water and ice rescues, rope or mine rescues, need specialized personal protective equipment. Standard fire fighting suit may be needed in some rescue operations; in others, it does not suit. Those wearing the protective clothing should know the dangers of wearing loose clothing, long hair, and jewelry during rescue operations.

Task cycle:

1. Work individually. Spend five to ten minutes thinking about the firefighters` equipment. Ask your teacher for any vocabulary you need
2. Discuss the text with your neighbour.
3. Listen to the other people`s opinions.
4. What tools can you see on the picture? Rank the tools on the picture under the appropriate headings.
 - 1.
 - 2.
 - 3.
 - 4.
 5. ...



Language focus:

- ▶ the teacher highlights the vocabulary
- ▶ the teacher highlights grammar

homework: Make a presentation on What equipment is needed for surface rescue? The presentation should be 7 minutes long. Use different visual aids to make your presentation more vivid and comprehensible.

6. DUTIES IN ACCIDENT SCENE

Pre – task:

- Brainstorm on possible accident scenes/ actions taken in accident scenes.
- Bring theme round to What are the rescue officers` duties in accident scene of factory fire/ car accident/etc.
- Add other vital topic words that will come in the text.

Task

Read the text about Rescue Works.

Rescue Works

Rescue works start when the emergency call center dispatches fire extinguishing and rescue teams and ambulance crews to the scene of an accident, and finish with the order given by a rescue work co-ordinator who is in charge of all fire extinguishing and rescue teams and additional forces who arrive on the scene of an accident. No one has the right to amend the lawful orders of a fire extinguishing and rescue work co-ordinator. A fire extinguishing and rescue work co-ordinator has the right:

- 1) to call the police to the scene of an accident in order to preserve public order and ensure traffic control, and to protect property against unlawful attacks;
- 2) to engage natural persons with capacity for work who are at least eighteen years of age in fire extinguishing and rescue work;
- 3) to issue orders to enter any territory, building or room in order to carry out fire extinguishing and rescue work and to open doors, gates, windows and other constructions for this purpose;
- 4) to issue orders to carry out demolition work, fell trees, set back-fires, block ditches and streams, and carry out other work related to fire extinguishing and rescue work;
- 5) to issue orders to take water, sand, gravel and other substances and materials necessary for fire extinguishing and rescue work from places which belong to undertakings and natural persons;
- 6) to use telecommunications equipment and networks without charge and with priority in fire extinguishing and rescue work;
- 7) to issue orders to use equipment and means which belong to natural and legal persons in fire extinguishing and rescue work.

Rescue teams are formed from the brigade on duty, who are given responsibility of the rescue equipment and fire engines.

Fire extinguishing and rescue works can be coordinated either by chief commander, operative duty officer, team leader or rescuer appointed by Rescue Board.

The quickest and safest road is used to get to the accident place. The flashing lights of the fire engine are switched on and if necessary the sound signal is used while driving to the scene.

The rescue works co-ordinator of the central fire brigade or support fire station, which is first sent to the scene, is collecting information about the accident place and accident itself.

The emergency call center is immediately informed by the first team, who gets to the accident place, about the arrival.

The first team leader arriving to the accident place will give orders to start preparation works and will start reconnaissance, which is very important for the action that is being taken for the next. Reconnaissance should give the rescue works co-ordinator an overview of the whole situation.

As said before, finishing the rescue works is the responsibility of the rescue works co-ordinator, who has inspected the scene of an accident. The purpose of this activity is to discover possible fire hearth,

determine collapsing building constructions; safety of hazardous devices; and the supervision over the accident place, if necessary the search of victims and casualties.

After the accident all equipment used and fire engines must be cleaned, if necessary, changed and maintained. All essential documents must be filled in or renewed.

(Adapted version of Rescue Act)

Task cycle:

1. Work individually. Spend five minutes to think of more rescue workers` duties in accident scene. Ask your teacher for any vocabulary you need.
2. Discuss the text and your ideas with your neighbour.
3. Spend a few minutes preparing a short speech of the duties you came up with your neighbour.
4. Listen to the other people`s opinions.
5. Write one word in each gap. The first one is done for you.

Rescue works

Rescue works start when the emergency call center (1) dispatches fire extinguishing and rescue teams and ambulance (2)_____ to the scene of an accident, and finish with the order given by a rescue work co-ordinator who is in charge of all fire extinguishing and rescue teams and additional (3)_____ who arrive on the (4)_____ of an accident. No one has the right to amend the lawful orders of a fire extinguishing and rescue work (5)_____. A fire extinguishing and rescue work co-ordinator has the right:

- 1) _____ to call the police to the scene of an accident in order to (6)_____ public order and ensure traffic control, and to (7)_____ property against unlawful attacks,
- 2) _____ to engage natural persons with capacity for work who are at least eighteen years of age in fire (8)_____ and rescue work,
- 3) _____ to (9)_____ orders to enter any territory, building or room in order to carry out fire extinguishing and rescue work and to open doors, gates, windows and other constructions for this purpose,
- 4) _____ to issue orders to carry out (10)_____ work, fell trees, set back-fires, block (11)_____ and streams, and carry out other work related to fire extinguishing and rescue work,
- 5) _____ to issue orders to take water, sand, gravel and other substances and materials necessary for fire extinguishing and rescue work from places which belong to undertakings and natural persons,
- 6) _____ to use telecommunications equipment and networks without (12)_____ and with priority in fire extinguishing and rescue work,
- 7) _____ to issue orders to use equipment and means which belong to natural and legal persons in fire extinguishing and rescue work.

Rescue teams are formed from the (13)_____ on duty, who are given responsibility of the rescue equipment and fire (14)_____.

Fire extinguishing and rescue works can be coordinated either by chief commander, operative duty officer, team leader or rescuer appointed by Rescue Board.

The quickest and safest road is used to get to the (15)_____ place. The (16)_____ lights of the fire engine are switched on and if necessary the sound signal is used while driving to the (17) _____.

The rescue works co-ordinator of the central fire brigade or (18)_____ fire station, which is first sent to the scene, is collecting information about the accident place and accident itself.

The (19)_____ call center is immediately informed by the first team, who gets to the accident place, about the arrival.

The first team leader arriving to the accident place will give (20)_____ to start preparation works and will start (21)_____, which is very important for the action that is being taken for the next. Lurking should give the rescue works co-ordinator an overview of the whole situation.

As said before, finishing the rescue works is the responsibility of the rescue works co-ordinator, who has inspected the scene of an accident. The purpose of this activity is to (22)_____ possible fire hearth, determine collapsing building (23)_____, safety of hazardous devices, and the supervision over the accident place, if necessary the search of (24)_____ and (25)_____.

After the accident all (26)_____ used and fire engines must be cleaned, if necessary, changed and (27)_____. All essential documents must be filled in or renewed.

Use each of these words to fill in the blanks.

reconnaissance	orders	co-ordinator	flashing	crews
forces	issue	ditches	support	scene
extinguishing	brigade	casualties	protect	scene
maintained	demolition	constructions	discover	engines
preserve	charge	victims	emergency	equipment
accident				

6. Use the vocabulary in exercise 5 and write a passage about rescue works.

7. Translate the sentences into English by using the vocabulary in unit 6.

1. Tulekustutus- ja päästetööde juht on isik, kellele alluvad kõik õnnetuskohale saabunud tulekustutus- ja päästemeeskonnad ning lisajõud.
2. Tulekustutus- ja päästetööde juhi korraldusi ei ole kellelgi õigus muuta.
3. Tulekustutus- ja päästetööde juhil on õigus:

a) kutsuda sündmuskohale politsei toimkond avaliku korra ja liikluskorralduse tagamiseks ning vara kaitseks õigusvastaste rünnete eest;

b) rakendada tulekustutus- ja päästetöödel töövoimelisi füüsilisi isikuid alates 18-st eluaastast

c) anda korraldusi siseneda tulekustutus- ja päästetööde tegemiseks mis tahes territooriumile, hoonesse ja ruumi ning avada selleks uksi, väravaid, aknaid ja muid konstruktsioone;

d) anda korraldusi teha lammutustöid, maha raiuda puid, teha tõkestustuld, tõkestada kraave ja ojasid ning teha muid tulekustutus- ja päästetööga seotud töid;

e) anda korraldusi võtta vett, liiva, kruusa ning muid tulekustutus- ja päästetöödeks vajalikke aineid ja materjale ettevõtetele ja füüsilistele isikutele kuuluvatest kohtadest;

f) kasutada tulekustutus- ja päästetööde käigus tasuta ja väljaspool järjekorda elektersidevahendeid ja -võrke.

g) anda korraldusi kasutada tulekustutus- ja päästetöödel füüsilistele ja juriidilistele isikutele kuuluvaid seadmeid ja vahendeid.

7. ACCIDENTS (FIRES, TRAFFIC ACCIDENTS, HAZARDOUS MATERIALS, ANIMAL RESCUE, FIRST AID)

Pre – task:

- Brainstorm on different types of accidents/rescue
- Brainstorm on words/phrases about first aid
- Bring theme round to What do we use the oil for? How do spills happen? How do rescuers take care of the problem of oil spills?
- Add other vital topic words that will come in the text.

Task 1

Read the text *Wha’s the Story on Oil Spills*.

What’s the Story on Oil Spills?

When we talk about oil spills, how much oil are we talking about?

- The United States uses about 700 million gallons of oil every day.
- The world uses nearly 3 billion gallons each day.
- The largest spill in the United States so far was the ...into Prince William Sound, Alaska in March 1989. An oil tanker ran aground to cause this spill of almost 11 million gallons of crude oil. While this was a big spill, it was actually only a small fraction, less than 2 percent of what the United States uses in 1 day!

What do we use all this oil for?

You may not be aware of all the ways we use oil. We use it

- to fuel our cars, trucks, and buses, and to heat our houses.
- to lubricate machinery large and small, such as bicycles or printing presses.
- to make the asphalt we use to pave our roads.
- to make plastics, such as the toys we play with and the portable radios or CD players we listen to.
- to make medicines, ink, fertilizers, pesticides, paints, varnishes, and electricity.

How do spills happen?

Oil spills into rivers, bays, and the ocean are caused by accidents involving tankers, barges, pipelines, refineries, and storage facilities, usually while the oil is being transported to us.

Spills can be caused by

- people making mistakes or being careless.
- equipment breaking down.
- natural disasters such as hurricanes.
- deliberate acts by terrorists, countries at war, vandals, or illegal dumpers.

Then what happens?

Oil floats on salt water (the ocean) and usually floats on fresh water (rivers and lakes). Very heavy oil can sometimes sink in fresh water, but this happens very rarely. Oil usually spreads out rapidly across the water surface to form a thin layer that we call an oil slick. As the spreading process continues, the layer becomes thinner and thinner, finally becoming a very thin layer called a sheen, which often looks like a rainbow.

Depending on the circumstances, oil spills can be very harmful to marine birds and mammals, and also can harm fish and shellfish. You may have seen dramatic pictures of oiled birds and sea otters that have been affected by oil spills. Oil destroys the insulating ability of fur-bearing mammals, such as sea otters, and the water-repelling abilities of a bird's feathers, thus exposing these creatures to the harsh elements. Many birds and animals also ingest (swallow) oil when they try to clean themselves,

which can poison them. Depending on just where and when a spill happens, from just a few up to hundreds or thousands of birds and mammals can be killed or injured.

Who takes care of the problem?

Once oil has spilled, any of various local, state, and Federal government agencies as well as volunteer organizations may respond to the incident, depending on who's needed. People may use any of the following kinds of tools to clean up spilled oil:

- booms, which are floating barriers to oil (for example, a big boom may be placed around a tanker that is leaking oil, to collect the oil) .
- skimmers, which are boats that skim spilled oil from the water surface.
- sorbents, which are big sponges used to absorb oil.
- chemical dispersants and biological agents, which break down the oil into its chemical constituents.
- in-situ burning, which is a method of burning freshly-spilled oil, usually while it's floating on the water.
- washing oil off beaches with either high-pressure or low-pressure hoses.
- vacuum trucks, which can vacuum spilled oil off of beaches or the water surface.
- shovels and road equipment, which are sometimes used to pick up oil or move oiled beach sand and gravel down to where it can be cleaned by being tumbled around in the waves.

Which methods and tools people choose depends on the circumstances of each event: the weather, the type and amount of oil spilled, how far away from shore the oil has spilled, whether or not people live in the area, what kinds of bird and animal habitats are in the area, and other factors. Different cleanup methods work on different types of beaches and with different kinds of oil. For example, road equipment works very well on sand beaches, but can't be used in marshes or on beaches with big boulders or cobble (rounded stones that are larger than pebbles, but smaller than boulders).

People also may set up stations where they can clean and rehabilitate wildlife. Sometimes, people may decide not to respond at all to a spill, because in some cases, responding isn't helpful or even adds to the damage from the spill.

What about the rest of us?

Because oil and oil products in the environment can cause harm, we need to prevent problems when we can. For example, by avoiding dumping oil or oily waste into the sewer or garbage, we avoid polluting the environment we live in. Sometimes, we can find ways to avoid using oil in the first place: for example, we can bicycle, walk, or take the bus rather than taking a car to some places we need to go. When we use less oil, less needs to be transported, and there's a lower risk of future oil spills. We should understand that it is because we rely on oil that we run the risk of oil spills. That means that all of us share both the responsibility for creating the problem of oil spills and the responsibility for finding ways to solve the problem.

Task cycle:

1. Discuss the text and your ideas with your neighbour. Ask your teacher for any vocabulary you need
2. Spend a few minutes preparing a short summary of the text. Report it to the class.
3. What would be your recommendation about how to prevent oil spills? What are the possible ways to solve the problem once it has occurred?
4. Share your ideas with your neighbour.

Task 2:

Read the text about Forest Fires and Your Health.

FOREST FIRES AND YOUR HEALTH

Forest fires are dangerous to your health, and if the wind is blowing in your direction, the risky zone exists for many hundreds of miles. The risk is especially dangerous for individuals with heart diseases, pregnant women, young children, and the elderly. Travelers at risk should avoid areas where fires are burning. While the risk for healthy travelers is not clear, the fireplaces should be avoided by all travelers whenever possible.

Recent fires in Indonesia have created serious smog (smoke fog) conditions in that country and in Singapore and Malaysia. Forest fires in Indonesia in 1997 and 1998 caused health problems over a large area of the Pacific/South East Asia region, also including Borneo, the Philippines, Thailand, and Brunei. In Borneo, hundreds of miles from the fires, the number of cases of pneumonia rose 5-25 times. In Malaysia, even further from the fires, the number of visits with diseases, which are connected with breathing, rose 2-3 times. Moreover, the incidence of these and related diseases are expected to rise for the next few years. The 1997 and 1998 fires affected about 200 million people. Also, the fires cause poor visibility, contributing to highway accidents, causing several large ships to crash, and possibly playing a role in a crash of a passenger plane.

When forests, plants and animals burn, the burning processes are not complete, letting millions of tons of dirt into the air. When the air pollutants from the forest fire get together with the fuel mostly from gasoline and diesel, it can cause many more dangerous products. If there are no winds to blow the pollution away, the pollutants will stay in the air for weeks, and become more poisonous.



In many areas of the world, especially in the tropics, forest fires start during dry, hot weather periods. The pollution is caused by the emissions from cars and trucks when these meet the pollutants from the forests. Northern China also suffers from the fallout from sandstorms that blow in periodically from the Gobi Desert. Sand is also an important air pollutant in popular tourist areas of Egypt. In China, especially in winter, indoor air pollution in homes, restaurants, and guest houses is often worse than outdoor pollution, due to poor fuels used for heating and cooking. (In a few areas of the world, ash and toxic gases from volcanoes pollute the air. The number of forest fires will continue to

increase in the near future. The main reasons: warmer weather, inefficient land control policies in many countries, poor firefighting capabilities in developing countries, and local people illegally clearing land of forests, to mention just a few.

To sum up, every year forest fires across the world wreak devastation. One of the most important methods of fire prevention is educating the public. As the statistics shows, more than four out of every five forest fires are started by people. Their negligent behaviour such as smoking in forested areas or failing to extinguish campfires has caused many serious blazes. Therefore, public activities such as camping should be prohibited at dry periods. One of the tasks for fire prevention officials would be to remove as much dead wood as possible from forest areas. Firebreaks should also be widely used. One of the most controversial methods of fire prevention is controlled burning.

Task cycle:

1. Discuss the text and your ideas with your neighbour. Ask your teacher for any vocabulary you need
2. Spend a few minutes preparing a short summary of the text. Report it to the class.
3. What would be your recommendations about the ways of preventing forest fires?
4. Share your ideas with your neighbour.
5. Match the words and expressions in Column A with their definitions in Column B.

Column A	Column B
1. arson	a) to put out fire
2. to extinguish fire	b) plants and trees
3. arid	c) setting fire to a house, building, property
4. negligent	d) likely to burn very quickly and easily
5. flammable	e) narrow area of land from which all the trees and bushes have been removed in order to prevent fires from spreading
6. firebreak	f) very dry without many plants because lack of rain
7. vegetation	g) stopping fires from happening

Task 3:

Read the text about First Aid in Medical Emergencies.

First Aid in Medical Emergencies

Medical problems do not always develop slowly. Sometimes there are emergencies. An emergency is a situation that requires immediate care to prevent greater harm to the patient. However, it is not always possible to get professional medical help right away, so it is important for everyone to be familiar with first-aid procedures.

The main objective of first aid is to save lives. Fortunately, most first-aid procedures are not complicated and can be performed by someone with a minimum of training. In all emergency cases, a doctor should be called as well as an ambulance, if necessary.

One of the most serious emergencies occurs when an individual has stopped breathing. This may be the result of asphyxiation, electrocution, drowning, a heart attack, or some other cause. After only four minutes without oxygen, brain damage is likely. To prevent brain damage or death, artificial respiration must be started immediately.

Before resuscitation is begun, the victim should be placed face-up on a hard, flat surface. Rough handling should be avoided due to possible fractures which could cause spine injury, paralysis, or other internal injuries. The primary considerations include restoration of breathing and heartbeat. Clothing should be loosened and foreign matters or vomit cleared from the mouth.

Cardiopulmonary resuscitation (CPR) of a patient involves two procedures. The first is getting oxygen into the blood by blowing air into the lungs. Mouth-to-mouth breathing is the most effective form of artificial respiration. The second procedure is the application of chest pressure to compress the heart and force blood into the circulatory system. Even if one is fatigued, it is important to continue resuscitation efforts until help arrives.

After cardiac and/or pulmonary arrest, the most critical emergency is severe bleeding (hemorrhaging), especially from a main artery. Pressure must be placed at the site of the bleeding, or a tourniquet must be applied. Care must be taken, however, to loosen the pressure from time to time to prevent gangrene.

Another common emergency is choking on food. A procedure known as the Heimlich maneuver is commonly used to unblock the trachea. The victim is clutched from behind, and the rescuer sharply presses with his clutched hands on the victim's chest until the foreign object is impelled out of the trachea, and the victim is able to breathe.

A condition that accompanies many medical emergencies is shock. When a victim is in shock, the bodily tissues are not receiving an adequate supply of oxygen-containing blood. Shock victims feel sweaty and look very pale. They have a weak, rapid pulse. They may be nauseous or even vomiting. The victim should be made to lie flat with the feet raised. No food or drink should be given. External bleeding should be controlled, and the victim should be kept warm and comfortable until help arrives.

There are more serious injuries that have to be treated in care. These include injuries to the head, neck and back. Less serious injuries involve broken bones, small cuts and simple bruises.

Burns can be as trivial as simple cut or can be cause for real concern. Burns are classified as first, second, or third degree, depending on their severity. Third-degree burns are very serious as they destroy the ability of the affected epidermis layer to regenerate, and treatment may require skin grafting. Serious burns require prompt medical attention and possibly hospitalization to avoid shock and dehydration and to relieve severe pain.

Because speed is important in an emergency. It is helpful to have the emergency equipment and medications readily available in a first-aid kit. This kit should contain, at a minimum, a thermometer, antiseptic solution, an Ace bandage, equipment for making splint, clean rags for a tourniquet, sterile absorbent cotton for cleaning wounds, and gauze pads with adhesive tape for bandaging them. A stethoscope, a sphygmomanometer for measuring blood pressure, a suture kit, and a tracheotomy kit are also useful to someone trained in their use.

Task cycle:

1. Discuss the text and your ideas with your neighbour. Ask your teacher for any vocabulary you need
2. Spend a few minutes preparing a short summary of the text. Report it to the class.
3. Group the words under these headings (the number of words under each column is different):

kidney	ointment	a bad cough	crutch	breastbone		
	tourniquet	concussion	flu	stretcher	stroke	spine
inflammation		liver	wheelchair	bandage	walking frame	
	indigestion	windpipe	pneumonia	intestine	insomnia	

Medical equipment (7 words)	Diseases (8 words)	Parts of body (6 words)

4. Discuss the questions with your neighbour

1. Have you ever administered first aid to a person who had had an accident or suddenly become ill? What did you do? Did the patient recover?

2. Have you ever needed first aid? Tell why, and tell what was done. What kinds of first aid have you administered to yourself?

3. Sometimes well-meaning but uninformed people do more harm than good when they try to administer first aid to an accident victim. Give some examples of the wrong things to do in various emergency situations.

5. Practice vocabulary by finding answers to the questions

1. When you compress something with your hands, do you push on it or pull it?
2. Paul was in a car accident and temporarily lost his memory. Did he have a compression or a concussion?
3. When there is a car accident, who usually gives first aid—the accident victim, a physician, a police officer, or a paramedic?
4. What is a tourniquet used for?
5. What first-aid procedures would you follow if you suspected that an accident victim had fractured an arm?
6. What is the best treatment for fatigue?

6. Order the instructions

... in case of shock.

- _____ The victim should be kept warm and comfortable.
- _____ Test the pulse.
- _____ Control external bleeding.
- _____ Touch the skin and note its colour.

... in case of wound

- _____ Disinfect the wound with an antiseptic.
- _____ Use stitches (sutures) to close the wound.
- _____ Give a tetanus shot or booster, if necessary.
- _____ Clean the wound.
- _____ Water the wound to remove foreign objects and dirt.

7. Below is a step-to-step guide to how to give an adult artificial respiration. Unfortunately, the sentences are in the wrong order. Put them in the correct order by numbering them 1-10. The first one has been done for you.

___ a blue-grey pallor towards pinkness. Give the first six to ten inflations fairly promptly, one after the other, then work according to the reaction of your casualty. If he is

___ inflations coincide with his own breathing in, and continue until you feel that he can cope alone. It can seem hopeless

1 Lie the casualty on his back and tilt back his head while supporting the back of his neck with the other hand. Keep

___ recovery position and watch to make sure that breathing continues.

___ pinkish, he is probably getting enough oxygen so just keep going steadily. If he is still pale blue-grey, he is not getting an adequate supply of oxygen, so try to get more air into

___ the chin up and blow air deeply and slowly into either the mouth or the nose until the chest rises, showing that you have inflated

___ to go on with CPR but persistence is sometimes rewarded even after as long as an hour, so keep going.

___ When the casualty is breathing naturally, place him in the lungs. Watch the chest fall. Repeat. If the heart is beating, the effect of the first few inflations should be a change in the casualty's colour from

___ him quickly. But always wait for all the air to escape before you blow in again. If the casualty begins to breathe again himself, let your

___ the lungs. If the chest fails to rise, check that you have the casualty's head in the correct position. If it still does not rise after this, check for an obstruction in the airway. Remove your mouth and allow the air to escape from the

8. What would you do if someone

1. had fainted
2. had a hangover
3. had swallowed a coin or a paper clip
4. had hiccups

Language focus:

- ▶ the teacher highlights the vocabulary
- ▶ the teacher highlights grammar

homework: translation exercise

Translate the text into English by using vocabulary above.

Kunstlik hingamine ja südamemassaaž

Pulsi puudumisel on väga oluline võimalikult kiiresti alustada kaudse südamemassaaži tegemist. Selleks surutakse seljale asetatud uppunule poolteist kuni kaks korda sekundis ehk 80-100 korda minutis rindkere keskosas paiknevale rinnakuluule. Enne südamemassaaži tegemist võib südametegevuse käivitamiseks paar korda lüüa rusikaga vastu rinnaku luud ja alustada südamemassaaži, kui pulss endiselt puudub.

Vähemalt iga 15 südamemassaaživajutuse järel tehakse kunstlikku hingamist, puhudes õhku elustatava kopsudesse korraga kaks korda järjest. Täiskasvanule hingatakse suust suhu, pigistades eelnevalt teadvusetu nina kinni ja kallutades ta pea veidi kuklasse. Soovitav on kasutada abistaja kaitsevahendina hingamiskilet või hingamismaski. Hingamismaski kasutamisel tuleb see õhutihedalt suruda vastu elustatava nägu nii, et mask katab ka nina.

8. SMOKE DIVING

Pre – task:

- Brainstorm on words/phrases about smoke diving
- Bring theme round to Who usually issues orders on emergency site? etc.

Task:

Read the text about Smoke diving.

Smoke Diving

Putting out fires, smoke diving assignments, clearance and working at height are placing special demands to firefighters' physical and psychological working ability.

First of all, all rescuers who have smoke diving duties have to be tested and satisfy the medical and functional standards for smoke divers. The smoke diver must have sufficient strength to carry out the tasks of smoke diver.

Conditions that normally exclude duties using smoke diving equipment include previous or present heart disease, hypertension, diabetes, persons suffering from mental illnesses or deviations, persons with reduced lung functions, pregnancy, reduced hearing which restricts verbal communication, and other conditions with reduced capabilities, such as neurological illness, limited mobility or severe obesity.

If someone meets the medical standards, but fails the physical tests, the responsible doctor may give temporary approval, limited to 6 months. Should the candidate, after a period of 6 months, still fail the physical fitness test, he shall be exempted from service as a smoke diver.

The leader of the smoke divers is selected in case of every smoke diving. The leader has to be competent on issuing orders and if necessary, be able to rescue the smoke divers on duty.

The team of smoke divers has to consist of 4 equipped smoke divers. By way of exception, when there is a normal risk environment, there can be 3 equipped smoke divers.

The smoke diver's equipment includes fire protection clothing, a helmet, fire gloves, fire boots, a belt with carbines. Smoke diver's underwear, socks, and clothing under the fire protection suit must meet the requirements of working in high temperatures. Additionally, a smoke diver has a breathing apparatus. There are some more things that rescuers need during smoke diving. These are a torch, demolition tools, a rope, and communication systems.

In an emergency situation emergency personnel may be exposed to considerable heat stress. They must be able to work in a stressing situation wearing a tight-fitting face mask and breathing air from a supply on their back. In addition, they must be able to climb ladders whilst wearing full equipment, be able to carry injured persons to safe areas and be prepared to carry out many and maybe extensive searches.

Task cycle:

1. Discuss the text and your ideas with your neighbour. Ask your teacher for any vocabulary you need
2. Spend a few minutes preparing a short summary of the text. Report it to the class.

3. Categorise the words you think are important from the text:

nouns	verbs	adjectives	any other

4. Discuss the questions with your neighbour.

1. Have you ever practiced smoke diving?
2. What are the dangers of smoke diving?
3. Is every firefighter suitable for practicing smoke diving?
4. Is it essential to have annual tests for smoke divers?
5. What kind of tests does the firefighter have to pass to get the smoke diver's qualification?

Language focus:

- ▶ the teacher highlights the vocabulary
- ▶ the teacher highlights grammar

homework: write a short summary of Smoke Diving (120 words).

CHAPTER 2. EMERGENCY CENTRE 112

1. THE DUTIES OF EMERGENCY CENTRE

Pre – task:

- Brainstorm on words/phrases about Emergency Centre/its duties/etc.

Task:

Read the text about The Duties of Emergency Centre.

THE DUTIES OF EMERGENCY CENTRE

The duties of Emergency Centre include:

1. receiving emergency calls, processing, documenting, saving and keeping these calls;
2. receiving primary information about an emergency and informing certain services whose responsibility is to solve the problems;
3. sending rescue-and firefighting squads, an ambulance crew, necessary techniques to the emergency site;
4. documenting and implementing the fire- and rescue work co-ordinator`s operative orders;
5. informing different boards about accidents;
6. renewing, processing, keeping important data;
7. giving information about accidents;
8. and some more duties.

Many countries' public telephone networks have a single emergency telephone number, sometimes known as the universal emergency telephone number or occasionally the emergency services number, that allows a caller to contact local emergency services for assistance. The emergency telephone number may differ from country to country. It is typically a three-digit number so that it can be easily remembered and dialed quickly. Some countries have a different emergency number for each of the different emergency services; these often differ only by the last digit.

A single emergency call number 112 is in use in Estonia for calling for fire and rescue service and ambulance.

The telephone number 112 is the international emergency telephone number for GSM mobile phone networks. It does not necessarily work on mobile phone networks based on other technologies. In all European Union countries it is also the emergency telephone number for both mobile and fixed-line telephones.

Using 112 instead of another emergency number on a GSM phone may be advantageous, since 112 is recognized by all GSM phones as an emergency number.

An emergency telephone number call may be answered by either a telephone operator or an emergency service dispatcher. The nature of the emergency (police, fire, medical) is then determined. If the call has been answered by a telephone operator, they then connect the call to the appropriate emergency service, who then dispatches the appropriate help. In the case of multiple services being needed on a call, the most urgent need must be determined, with other services being called in as needed.

Emergency dispatchers are trained to control the call in order to provide help in an appropriate manner. The emergency dispatcher may find it necessary to give urgent advice in life-threatening situations. Some dispatchers have special training in telling people how to perform first aid or CPR.

Some more tasks of Emergency Centre include receiving emergency calls, determining the extent of an accident, deploying, fire fighting and/or ambulance vehicle, co-ordination of further rescue actions on-site and submitting, processing and filling the information.

The alarm centre of a state rescue service agency (hereinafter alarm centre) receives incoming emergency calls, dispatches fire extinguishing and rescue teams and ambulance crews to the scene of an accident, and organizes operational communications and information processing.

An alarm centre shall inform the police dispatcher service and the Rescue Board of accidents pursuant to the procedure established by the Minister of Internal Affairs.

Adapted version of the Rescue Act

Task cycle:

1. Discuss the text and your ideas with your neighbour. Ask your teacher for any vocabulary you need
2. Spend a few minutes preparing a short summary of the text. Report it to the class.
3. Answer the questions:
 1. When you should call the emergency number 112? Write down as many reasons as you can. Compare them with your neighbour.
 2. How to make an emergency call?
 4. Put the emergency call between dispatcher and caller in the right order.

_____ **Caller**, "Yes, I think there is an old lady who is hard of hearing."

_____ **Operator**, "What is the address of the incident?"

_____ **Caller**, "A two-storied house is on fire in our street."

_____ **Caller**, "48 Oxford Road, London."

_____ **Operator**, "Fire and rescue service."

_____ **Operator**, "What happened? What is the problem?"

_____ **Operator**, "Stay calm. Hold on, please. We will be with you shortly."

_____ **Operator**, "Are there any victims inside the house?"

5. Discuss the question with your neighbour:

What do people usually say wrong while calling to emergency number 112?

Language focus:

- ▶ the teacher highlights the vocabulary
- ▶ the teacher highlights grammar

homework:

1. Design, produce and record a short programme on video. A short introduction of an Emergency Call Center.

2. Read the 112 Emergency Centre message to on-duty Northern Region EOD team.
The report comprises 3 mistakes. Analyze the report and give the right version of it. Write down necessary vocabulary (at least 10 words).

Report of a suspicious article.

"A suspicious briefcase is next to the Automated Teller Machine on 36 Herne Street"

The EOD team departs home base, emergency lights flashing and siren wailing enroute to the scene. On the scene, the EOD team leader assesses the situation and gathers additional information. Upon arriving together with the on-duty Rescue Dog and Handler, the suspect briefcase is given a once over with the EDD, who responds that an explosive odor is present. With that, one of the deminers decides to employ their remotely operated robot. Equip with remote cameras, to hopefully get a better look at the situation. It now becomes clear that the robot and CCTs are not sufficient and the team leader instructs an EOD tech to dawn an appropriate bomb suit and ready the disrupter for use. The other EOD tech has now positioned the disrupter in front of the briefcase and returned to a safe position. Upon command the disrupter is fired, which performed perfectly with no secondary detonation. The protected EOD tech is now instructed to move forward and re-inspect the briefcase only to conclude that there was no presence of explosives. It appears that this was once again the work of a sick criminal mind. The EOD team repacks equipment and returns to home base.

2. THE DUTIES OF OFFICERS IN CHARGE

Pre – task:

- Brainstorm on words/phrases about different duties of rescue leaders.

Task:

Read the text about The Duties of Officers in Charge.

THE DUTIES OF OFFICERS IN CHARGE

A fire extinguishing and rescue work co-ordinator has the right:

- 1) to call the police to the scene of an accident in order to preserve public order and ensure traffic control, and to protect property against unlawful attacks;
- 2) to engage natural persons with capacity for work who are at least eighteen years of age in fire extinguishing and rescue work;
- 3) to issue orders to enter any territory, building or room in order to carry out fire extinguishing and rescue work and to open doors, gates, windows and other constructions for this purpose;
- 4) to issue orders to carry out demolition work, fell trees, set back-fires, block ditches and streams, and carry out other work related to fire extinguishing and rescue work;
- 5) to issue orders to take water, sand, gravel and other substances and materials necessary for fire extinguishing and rescue work from places which belong to undertakings and natural persons;
- 6) to use telecommunications equipment and networks without charge and with priority in fire extinguishing and rescue work;
- 7) to issue orders to use equipment and means which belong to natural and legal persons in fire extinguishing and rescue work.

The rescue works co-ordinator of the central fire brigade or support fire station, which is first sent to the scene, is collecting information about the accident place and accident itself.

The emergency call center is immediately informed by the first team, who gets to the accident place, about the arrival.

The first team leader arriving to the accident place will give orders to start preparation works and will start reconnaissance, which is very important for the action that is being taken for the next. Reconnaissance should give the rescue works co-ordinator an overview of the whole situation.

As said before, finishing the rescue works is the responsibility of the rescue works co-ordinator, who has inspected the scene of an accident. The purpose of this activity is to discover possible fire hearth, determine collapsing building constructions, safety of hazardous devices, and the supervision over the accident place, if necessary the search of victims and casualties.

Adapted version of the Rescue Act

Task cycle:

1. Discuss the text with your neighbour. Ask your teacher for any vocabulary you need.
2. Spend a few minutes preparing a short summary of the text. Report it to the class.

3. Find words in the text that match the definitions 1-5.

1. to employ someone

e _ _ _ _ _

2. to keep sth as it is

p _ _ _ _ _ _

3. to give requests

i _ _ _ _ o _ _ _ _ _

4. keeping an eye on the situation

r _ _ _ _ _ _ _ _ _ _

5. to decide

d _ _ _ _ _ _ _

3. Categorise the words you think are important from the text:

nouns	verbs	adjectives	any other

Language focus:

- ▶ the teacher highlights the vocabulary
- ▶ the teacher highlights grammar

homework 1:

Imagine that you are a rescue work co-ordinator. The Emergency Centre 112 received a call. There has been an accident on Tallinn-Tartu road in Kose. Two cars have crashed. There are 3 people in one car and 2 people in the other car. According to the caller people are not moving in the cars. What are your duties during the drive to the accident scene and on the accident scene. List the duties. Use the vocabulary in exercise 3.

4. DIFFERENT CLASSIFICATIONS (SITES, FIREFIGHTING EQUIPMENT, EXPLOSIVES, TYPES OF ACCIDENTS, REASONS FOR ACCIDENTS)

Pre – task:

- Brainstorm on words/phrases about rescue from the air/ Sea King.

Task 1

Read the text about Rescue from the Air

RESCUE FROM THE AIR

Even an expert in survival skills would not live through a fall from a ship in the North Sea or being stuck on a mountainside in icy weather. Sometimes the only chance of surviving is a fast rescue.



Last year the alarm bell rang 136 times. But in the summer, when the tourists arrive, the helicopter can be called out four times a day. The Sea King helicopter is big-it can carry twenty-five people in an emergency. It has two engines and can fly for six hours without taking on more fuel.

The Sea King is also fitted with special equipment which lifts a beam off the water below and produces a very correct measure of the height of the helicopter. The computers automatically make clear the position of the helicopter as it comes closer to its target.

Another thing is a very modern radar system, used to inform the pilots to their targets even if they can't see where they are going. There are four crew members: the pilot, the co-pilot, the navigator (who also takes care of the radar system) and the winchman (the person who takes care of the rope that lifts people into the helicopter).

The radar operator sits in a blacked-out area with the orange radar screen in front of him. It needs an experienced operator to make sense of the screen and to be able to find certain points along the coastline.

Domestically, Sea Kings contribute to search and rescue (SAR) operations, disaster relief, coun-

ternarcotic operations, and fisheries and pollution patrols.

The helicopter also plays a vital role in international peacekeeping operations. It has been heavily committed to the international campaign against terrorism. The Sea King remains one of the busiest aircraft in Canada's Air Force.

However, if the helicopter does crash and turns over, then all the team can do is find one of the many exits and get out quickly. In case this should happen, the team has many trainings. They act out rescues at sea and in the mountains. Even in clear weather, they fly using radar in order to become cleverer in the use of the instruments. This can lengthen the time a person can survive in freezing water from a few minutes to more than ten hours. This gives the team some time to be found if the helicopter should crash into the sea.

The Internet

Task cycle:

1. Discuss the text with your neighbour. Ask your teacher for any vocabulary you need.
2. Spend a few minutes preparing a short summary of the text. Report it to the class.
3. Find suitable words from the text above under the following headings: members of crew, equipment, tasks.

members of crew	equipment	tasks

5. Compare rescue from the air to swift water rescue.

SIMILARITIES	DIFFERENCES

Task 2

Read about Different Classifications

Pre – task:

- Brainstorm on words/phrases about different classifications.

Different Classifications**OBJECTS:**

accommodation facility
catering house
commercial building
service building
health centre
care institution
educational – and science building
cultural building
sports and health centre
cultural centre
administrative- and office building
warehouse
public service building
industrial building
building for forestry
hunting and fishery
transportation building
media centre
household building
vehicle
other means of transportation
other objects outside building

1

ACCIDENT REASONS:

carelessness of using open fire
smoking
hot work
using electrical appliances
using heating appliances
cooking
technological process
keeping hypergolic substances and materials
children playing with fire
lightning
storm
wind
flood
heavy snowfall
breakage of device
breakage of technical device
breakage of electrical device
breakage of electrical cable
breakage of the heating system
ashes catching fire in a flue
breakage of power supply systems and electrical supply of vehicles
sparks from different device
lack of construction
illness
unidentified reason

4

EVENTS/ACCIDENTS:

fire
radioactive pollution
chemical pollution
oil pollution
accident caused by natural disaster
explosive device explosion
other explosion
bomb notice
bomb threat
traffic accident
plane crash
railway accident
accident on the body of water
gas accident
communal accident
electrical fault
work or domestic accident
production break-down
intentionally-made false call
false call
service
drill
ambulance
arson
burning dry grass
other malicious act
ignorance

2

FIREFIGHTING EQUIPMENT:

fire and rescue equipment
fire fighting equipment
fire fighting gear
firefighting suit; fire suit
fire helmet
face shield
firefighter's boot
fire service belt
safety harness
security rope
firefighter's gloves
rescue rope
hazardous materials suit
fireman's uniform
personal protective equipment

5

ACCIDENT SITES:

accommodation facility
production room
farm
warehouse
garage
ancillary premise
utility room
living room
office
kitchen
corridor
lobby
vestibule
staircase
basement
attic
roof
heating room
forest
peat field
peat bog
area out of building (territory, street, park, square)
means of transport
recycle bin
dumping ground
new construction
temporary building
bodies of water
dry grass
canebrake
grain field
hayfield (grassland)
other accident sites

3

respiratory protective device (equipment)
breathing apparatus; respiratory apparatus; respirator
first extinguishing equipment
fire blanket
fire extinguisher
portable fire extinguisher
extinguishing foam; firefighting foam
extinguishing powder
quenching gas
hose line
fire hose; firefighting hose
suction hose

RESCUE – AND FIRE-FIGHTING VEHICLES: 6
 main car (fire engine or rescue car)
 water tender (a container over 4 tons)
 rescue car
 ladder truck
 aerial work platform
 crane
 rescue- and firefighting support technique
 fire cheif's vehicle
 ambulance car

SUPPORT TEAMS: 9
 ambulance
 service of gas accident
 service of electricity breakdown
 service of communal accident

DEVICES AND APPLIANCES: 7
 technological device
 container reservoir
 lift
 gallery
 communications
 flue

EXPLOSIVES: 10
 hand grenade
 plane bomb
 infantry line
 mine thrower mine
 missile
 field-gun projectile
 detonator
 antitank mine
 bazooka
 torpedo
 self-made explosive

OTHER SERVICES: 8
 police
 defence force
 union force
 Boarderguard
 baywatch
 sea rescue
 service for animals
 forest fire organization
 civil protection use
 civil protection committee
 support team

TYPES OF RESCUES: 11
 confined space rescue
 rope rescue
 cave rescue
 fast water rescue
 ice rescue
 mine rescue
 search and rescue
 wilderness rescue
 ski patrol
 vehicle rescue
 animal rescue
 technical rescue
 diver rescue
 swift water rescue
 aeronautical rescue

Task cycle:

1. Put the words from the lists above into the following groups (input given by the teacher):

OBJECTS

SITES

ACCIDENT REASONS

ACCIDENTS

TYPES OF RESCUE

Language focus:

- ▶ the teacher highlights the vocabulary
- ▶ the teacher highlights grammar

homework: Choose one type of rescue from the Classification of types of rescues. Make a presentation about it (5 minutes) introducing the peculiarities of this certain type of rescue/equipment that is used/ etc.

CHAPTER 3. CRISIS MANAGEMENT

1. CRISIS MANAGEMENT

Pre – task:

- Brainstorm on words/phrases about crisis management.
- Brainstorm on duties of crisis management.

Task

Read about Crisis Management

CRISIS MANAGEMENT

First of all we should look at some definitions in crisis management system. These would be the following:

An emergency is a situation which poses an immediate risk to life, health, property or environment. Most emergencies require urgent intervention to prevent a worsening of the situation, although in some situations, mitigation may not be possible and agencies may only be able to offer palliative care for the aftermath.

Whilst some emergencies are self evident (such as a natural disaster which threatens many lives), many smaller incidents require the subjective opinion of an observer (or affected party) in order to decide whether it qualifies as an emergency.

The precise definition of an emergency, the agencies involved and the procedures used, vary by jurisdiction, and this is usually set by the government, whose agencies (emergency services) are responsible for emergency planning and management.

An international emergency is an event or sequence of events in foreign country, which threatens international security. The Republic of Estonia is connected to it by foreign commitment or by international call for help.

Crisis management involves identifying a crisis, planning a response to the crisis and confronting and resolving the crisis. Crisis management can be applied in almost any field of endeavor, but it is most commonly used in international relations, political science, business and management.

Many school districts have developed crisis response guides, which identify potential situations such as fires and other disasters, bomb threats, confronting unwelcome visitors, violence (and threats thereof) and the death of a student.

Crisis management team involves a permanent group of people who are responsible for informing necessary instances, using resources, coordinating co-operation between different boards and analysing the situation. This group of people has to be available 24 hours a day.

An international crisis is a crisis between nations. There are many definitions of an international crisis. Snyder "...a sequence of interactions between the governments of two or more sovereign states in severe conflict, short of actual war, but involving the perception of a dangerously high probability of war.

Duties of crisis management are:

1. to make a risk analysis to find out possible emergency situations;
2. to find out possibilities of avoiding emergency situations;
3. to make a crisis management plan;
4. to prepare structures for solving crisis situations;
5. to provide the resources for solving crisis situations;

6. to solve the emergency situation;
7. to organize informing the public;
8. to organize the crisis management training;
9. to question public about emergency situation;
10. to restore the functioning of important areas.

Duties of crisis management committee involve:

1. to create the general principles for crisis management;
2. to overlook the risk analysis reports of ministries and counties;
3. to accord the crisis management plans of ministries and the State of Chancellery;
4. to overlook and comment on the state crisis management plan;
5. to form a crisis management team;
6. to co-ordinate the action of ministries, the State of Chancellery and the county governor in solving the emergency situation;
7. to submit the general principles for crisis management to the Estonian Government, which would help to create the crisis management politics in participating in international crisis management.

Crisis management, as stated before, has several duties, one of them is to make a crisis management plan. A crisis management committee has to overlook and comment on the state crisis management plan.

The Rescue Board advises the county governments in developing crisis management plans and making risk analysis; proposes the development of communications and early warning systems; participates in planning and preparing national crisis management trainings; takes a look at co-operation between non-profit associations and foundations; questions the public; informs the Minister of Internal Affairs about the crisis management plan and pronounces the Minister of Internal Affairs about the report of risk analysis. *-Adapted version of the Rescue Act-*

Task cycle:

1. Discuss the text with your neighbour. Ask your teacher for any vocabulary you need.
2. Spend a few minutes preparing a short summary of the text. Report it to the class.
3. Discuss the questions with your neighbour:
 1. What are the possible emergency situations in Estonia? (natural disasters, accidents caused by people, epidemics, social, political and economical situations, terrorism)
 2. What action should be taken under the following headings?

Civil Protection

Mitigation

Preparation

Response

Recovery

3. What are the duties of the Government, the Ministries involved the county governors, the City Government and undertakers during the crisis situation? Write about the duties of one of the parts in more detail.

Use the following link to help you: <http://www.kriis.ee/?id=10>.

Language focus:

- ▶ the teacher highlights the vocabulary
- ▶ the teacher highlights grammar

homework 1: Visit the website www.kriis.ee. Read through one of the press releases of the crisis management team. Write a short overview of the press release (120 words).

homework 2: Safety is always a priority, this responsibility takes on added urgency during times when the commonwealth and nation are threatened by natural disasters. How could Pärnu be prepared for flood? (Write about 150 words)

2. HAZARDS AND CATASTROPHIES (NATURAL DISASTERS AND TECHNOLOGICAL DISASTERS)

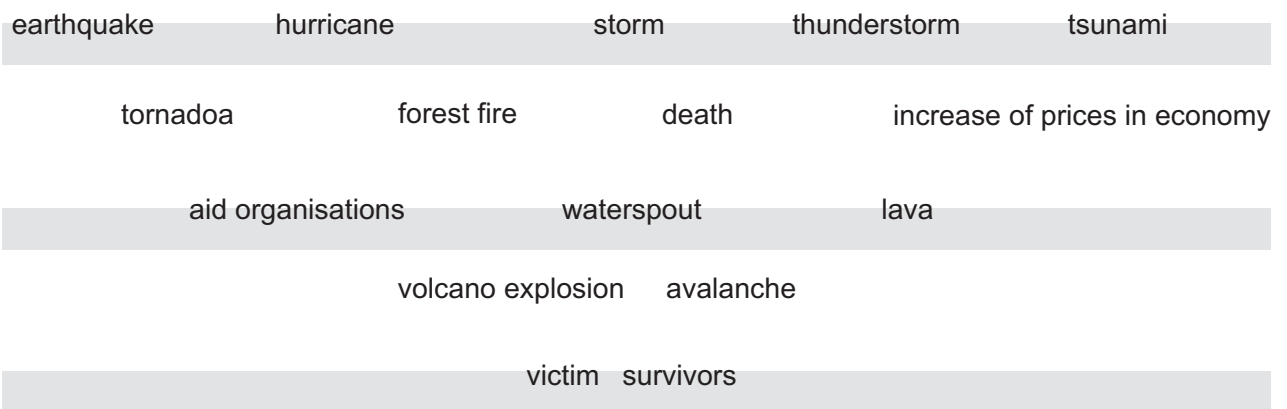
Pre – task:

- Brainstorm on words/phrases about hazards. Catastrophies (natural, technological)

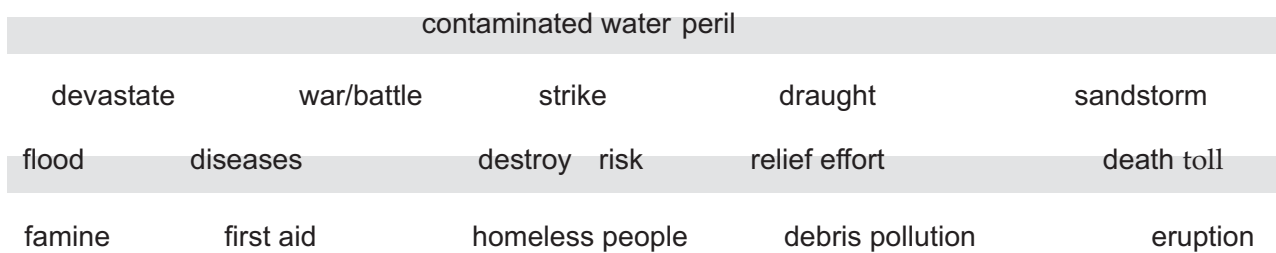
Pre - task:

- Bring theme round: What kind of natural disasters do you know? What kind of natural disasters have been the most devastating in the world? Why? Have there been any natural disasters in Estonia? What impact can the natural disasters have on humankind and nature?
- Make a mindmap on words connected to natural disasters.

MINDMAP



NATURAL DISASTER



Task 1

Read about Hazards.

Hazards

A hazard is a situation which poses a level of threat to life, health, property or environment. Most hazards are dormant or potential, with only a theoretical risk of harm, however, once a hazard becomes 'active', it can create an emergency situation.

A hazard is usually used to describe a potentially harmful situation, although not usually the event itself - once the incident has started it is classified as an emergency or incident.

(www.Amazines.com/hazard_related.html)

By its nature, a hazard involves something which could potentially be harmful to a person's life, health, property or to the environment

There are many causes of hazards, but they can broadly be termed in to:

- Natural - Natural hazards include anything which is caused by a natural process, and can include obvious hazards such as volcanoes to smaller scale hazards such as loose rocks on a hillside.
- Man made - Hazards created by humans, which includes a huge array of possibilities, probably too many to list, as it includes long term (and sometimes disputed) effects such as global warming to immediate hazards such as building sites.
- Activity related - Some hazards are created by the undertaking of a certain activity, and the cessation of the activity will negate the risk. This includes hazards such as flying.
In case of natural disaster, the main aim is to protect human life and health. In case of natural disasters people should stay indoors and follow the instructions provided via massmedia. At the same time, efforts are made in order to guarantee the function of power supply, communication, water supply, medical and rescue assistance to avoid life – threatening indirect dangers. Efforts are also made to prevent damage to the environment and serious economic losses.

In Estonia we can list particularly dangerous meteorological phenomena:

- Strong winds and whirlwinds can damage buildings, industrial units and the natural environment.
- Extraordinary amounts of rainfall mainly affect the function of communication and vital in frastructures. These are followed by a risk of flood.
- During excessive cold people trapped outdoors run a serious risk of freezing to death or suffer severe cold injuries. The main risk group involves people under the influence of alcohol or drugs.
- High temperature can cause heat- and sunstrokes.
- Floods threaten especially towns and other inhabited areas on the coast, by rivers and lakes with great flood risk, by river segments with dangerous dams or near abandoned under ground oil-shale mines where the pumping of water is discontinued.
- Thunderstorms occur mainly during the warm half-year in Estonia- from May to September. The main hazards due to thunder are wildfires, fires in buildings and electric networks, disturbances and cuts in the power and communication lines; breakdown of home and other electronic and electrical devices; injuries; flight accidents

(adapted version Accidents and Safety by Margo Klaos)

Task cycle:

1. Discuss the text with your neighbour. Ask your teacher for any vocabulary you need.
2. Spend a few minutes preparing a short summary of the text. Report it to the class.

Language focus:

- ▶ the teacher highlights the vocabulary
- ▶ the teacher highlights grammar

homework: Read the text below and write a summary of the text.

The Nature of the Hazard

To provide a context for understanding the problems caused by volcanic crises, this part of the manual offers a brief guide to what volcanoes are and how they behave.

An eruption occurs when molten rock (magma), reaches the Earth's surface through fractures in the crust. An accumulation of solidified magma around a fracture constitutes a volcano. Gases are trapped in magma and, close to the surface, they form bubbles. How easily the bubbles escape controls the style of eruption. If the bubbles are able to escape effortlessly, the magma oozes out as a lava flow, resulting in an effusive eruption. If the bubbles remain trapped, pressure builds in the magma, which then explodes at the surface. Trapped bubbles have a similar effect when opening a shaken bottle of fizzy drink.

The Lesser Antilles are an arc of islands, most of which are volcanic. The most common type of volcanism in the region involves the extrusion of almost solid, hot magma, which accumulates to form a lava dome. As a dome grows, it often becomes unstable and collapses. Bubbles still trapped inside may trigger explosions that hurl out large fragments of magma, known as ballistic ejecta or bombs. The collapsing part of the dome may also disintegrate to form pyroclastic flows or surges and ash falls.

Lava domes are masses of almost solid magma that accumulate at the surface. They are very common in the Eastern Caribbean. All the active volcanoes of the Lesser Antilles have recently extruded lava domes, while most of the hills surrounding them are ancient domes produced by now extinct volcanoes. Lava domes are dangerous because they can collapse or explode to produce pyroclastic flows and surges and extensive ash fall.

- Dome temperatures are typically between 700 and 1000 °C (1300 - 1850 °F).
- Although dome growth is normally slow and quiet, the build up of gas pressure in bubbles can cause periodic explosions.
- Lava domes can be kilometres across and several hundred metres high.

Pyroclastic flows consist of dense mixtures of gases, volcanic ash and - on many occasions - blocks and boulders of different sizes. In the Lesser Antilles they occur either when a dome collapses or during an explosive eruption. They are deadly. The most recent were generated on Montserrat in June 1997, killing 19 people. In 1902, Pyroclastic flows erupted from Martinique's Mont Pelée volcano obliterated the town of St. Pierre and killed up to 29,000 of its inhabitants. Pyroclastic flows appear as tall, turbulent, grey clouds moving rapidly down slope, and may glow at night. A pyroclastic flow will destroy or burn everything its path.

Task 2

Read the text Asia's Tsunami-the Cruel Sea.

ASIA'S TSUNAMI **The Cruel Sea**

A whole region has struggled to recover from the consequences of the greatest earthquake seen for 40 years.

It started early on December 26th, through mobile telephone came the horror stories of western tourists spending their Christmas vacations by the sea in places like Sri Lanka and Thailand, on opposite sides of the Bay of Bengal. Their beach-side favourite places had been flooded by huge tidal waves. From then on, the disasters have kept rising ruthlessly. The victims were, as usual, mostly the poor and vulnerable. The whole villages of uncounted, nameless fishing people were swallowed by the sea.

The region had been shaken by the greatest earthquake the world had seen since 1964. Its epicentre was under the sea, off the northern tip of the Indonesian archipelago. It also devastated parts of Indonesian Sumatra and reached as far as the coast of Africa, where many Somali fishermen perished, 6,500 km from the epicentre. The tsunami influenced greatly the regions from India, Sri Lanka and the 1,190 low-lying islands that make up the Maldives in the west, to Thailand and Malaysia in the east.

How many people actually died may never be known. An anthropological as well as a human disaster was feared: the utter extinction of a number of unique small tribes.

Alan Bradbury, of the Red Cross in Delhi, called this tsunami one of the worst natural disasters ever – not just because of the terrible toll in human death, but also because of its geographical scope and the number of the people affected.

It needed the biggest ever international relief effort. Across the region, hospitals and morgues were overflowed. Southern India started mass burials as well as cremations. The warning was given that many people could die from diseases like malaria, typhoid and cholera. Clean water was the necessity. Survivors also lacked fuel, food, medicines, shelter and even cooking pots.

Almost at once people started to finger - point. It took between 90 and 150 minutes after the quake for the tsunami to reach the coastlines where it did most damage. Why was there no warning? India, for example, is not part of a 26-country warning system that uses seismic sensors and tidal gauges attached to buoys in the ocean. Its members are mostly countries in and around the Pacific, where tsunamis are much more common. An Indian seismologist, Arun Bapat, argues that, even without the warning system, there should have been time enough to alert people of the peril by television and loudspeaker. Similar questions were asked in Thailand, which is part of the warning system. The questions are still open.

The economical cost of relief and rehabilitation will run into billions of dollars. The worse, we can't measure the moral loss the tsunami had caused. In Sri Lanka and elsewhere, hundreds of thousands of survivors were displaced. Some drifted into towns or were left for months in temporary camps. But most had no choice but to return to the debris of their homes and start their lives again. Scenes of mass panic were the cause of believing that there had been warning of extended surges. In fact, there was a little chance of another tsunami, since no aftershock to the first quake would have the strength to generate one.

Task cycle:

1. Discuss the text with your neighbour.
2. Report the class what you were reading.
3. Answer the questions about the text.

1. When did the tsunami start?
2. Where was the epicentre of the tsunami?
3. How many people died as a result of the peril?
4. How much time did it take for the tsunami after the quake to reach the coastlines?
5. Why was there no warning?
6. What kind of warning system is used in 26 countries?
7. Why did people start panicing after the tsunami had destroyed everything?
8. What would be your recommendation to a person in case of
...the event of an earthquake?

... the flood?

Language focus:

- ▶ the teacher highlights the vocabulary (natural disasters- vocabulary worksheets; word formation)
- ▶ the teacher highlights grammar (past tenses-past simple, past continuous, past perfect, past perfect continuous)

homework1:

1. find 5 more interesting facts about Asia's tsunami
2. Go to the website <http://www.fema.gov/hazards/floods/>, find answers to the following questions and write them in your Notebook.

1. What is the most catastrophic natural disaster in your opinion? Why?
2. What is a flood?
3. What should people do during a flood?
4. What should people do after a flood?

homework 2:

1. Read the text 'Brief halt for Indonesia mud flow'
2. Write a brief summary of the news (5 sentences) by using words and expressions in italics in the text.

Brief halt for Indonesia mud flow

A massive mud flow that has displaced some 15,000 people in Indonesia's Java island halted briefly for the first time in 10 months, officials say.

The mud stopped flowing for around 30 minutes on Monday morning, members of the team trying to plug the flow said.

They have been dropping hundreds of concrete balls into the mouth of the hole to stem the eruption.

Some scientists say the mud flow was likely triggered by gas drilling, but the gas company blames an earthquake.

The flow has submerged whole villages, destroying thousands of homes and businesses, since it erupted at the end of last May near the city of Surabaya in East Java.

'Positive indication'

The team's Rudi Novrianto said the mud stopped for half an hour shortly before noon (0500GMT) on Monday.

"It is a positive indication. I'm surprised by this finding."

"None of our team members knows for sure what happened and we are still trying to determine how it happened," he said.

Some team members said the temporary halt to the mud flow was a sign that their efforts were working, but warned it could still be another few months before it stops for good.

"There's a possibility that a new equilibrium between the concrete balls and the mud pressure is almost established and the mud has absorbed the energy of the balls," team member Bagus Endar told Reuters news agency.

"It is a positive indication. I'm surprised by this finding."

The team has been dropping 1.5m-long metal chains, each with four concrete balls attached, into the hole since last month. They aim to drop 1,500 balls, each weighing up to 250kgs (500lbs).

While some experts have doubted that the plan - believed to have never been tried before - would work, supporters hope it will reduce the amount of mud flowing from the site by up to 70%.

3. CRISIS COMMUNICATION

Pre – task:

- Brainstorm on words/phrases about crisis management.

Task

Read about Crisis Communication.

CRISIS COMMUNICATION

A crisis is an event that occurs suddenly, often unexpectedly, and demands a quick response. A crisis interferes with normal routines and creates uncertainty and stress. A crisis can be a natural event, such as an earthquake or a hurricane, or it can be man-made, such as an explosion, a scandal, or a conflict.

The key to effective crisis communication is to be prepared before a crisis occurs. Once an emergency happens, there is little time to think much less to plan. Without a crisis plan, you can be overwhelmed by events.

Crisis communication can be defined as the exchange of information that occurs within and between authorities, organizations, media and interested individuals, and groups, before, during and after a crisis.

There are three important dimensions during a crisis: the actual crisis, the way authorities and organizations handle the crisis, and the crisis image. The biggest problems often arise not from the way in which various actors handle or mishandle it, e.g. through poor preparation, difficulties in improvising and being flexible, incomplete knowledge of what has happened, actors, problems in understanding new roles and functions, etc.

Everyone is a decision-maker during a crisis. The authorities must, therefore, be well informed of different actors, perceptions and knowledge of different processes and situations.

Substantial numbers of actors often become involved in conjunction with a crisis: those affected and next of kin, authorities and organizations, local, national and international media, and volunteers. The crisis will arouse interest and commitment in many people, but it will also trigger curiosity. In addition to providing information for all the various interested parties, the crisis management team must also, for example, create perhaps entirely new routines for receiving VIPS and keeping the curious away from the crisis area.

One of the most typical characteristics of a crisis is that an intense need for information develops very quickly. It is all about handling operational information, updates, advice and guidance and masses of questions. It is also about analysing myths, rumours and decisions-and everything has to be done simultaneously.

The image that various interested parties have of a crisis is created, to a very large extent, by the media. The media can in addition to its role as a dedicated provider of information and news, provide background information and explain causal links. Media's information can also prevent rumours, reduce uncertainty and convey the group sense of sorrow. But it can also be the other way round-the media coverage of a crisis can make the situation worse for those affected.

The authorities must assume that the crisis image is as real as the crisis itself, and that substandard handling of the image during a crisis can result in the actual crisis expanding or taking a different form and direction. This is why, the crisis and the crisis image must be handled in parallel during a crisis.

The controversial Bronze Soldier monument was removed from downtown Tallinn April 26 after a night of heavy rioting in which one man was killed and over fifty injured.

"On the basis of the recommendation of the crisis commission, the Government of the Republic that held its extraordinary meeting decided at 3:40, in the interests of national security, in accordance with Article 8 Section 2 on the Protection of War Graves Act, to remove the grave sign situated at Kaarli puistee 13 to the Defense Forces Cemetery," a government spokesman said.

The current location of the monument has not been disclosed.

The violence broke out on the night of April 26 after skirmishes between police and several hundred people, mainly Russian-speaking youths, gathered Thursday afternoon and evening to protest exploratory excavation work at the site of the controversial Bronze Soldier monument.

The victim, identified by the government's crime commission only as Dmitry, born in 1987, was admitted to the Regional Hospital of Northern Estonia with stab wounds and later died during surgery. The crime commission initially reported that he was stabbed by another male who was admitted with injuries at the same time, but later said the killer was not in custody and that the second man's involvement had not been established.

Police say a criminal investigation has been launched.

BNS reports that at least 44 rioters and 13 police sustained injuries during the unrest. At least 300 arrests were made.

Tallinn residents woke up Friday morning to find dozens of shop windows smashed, as well as a heavy police presence.

Most of the vandalism occurred after midnight, after police first using light and sound grenades and later resorting to teargas canisters, dispersed protesters from the Tonismagi area, near the monument.

After being pushed onto side streets, crowds estimated to number around 1,500 – mainly teenagers or those in their early 20s – began a rampage, smashing shop windows, looting kiosks and overturning bus shelters. The worst hit areas were those in the vicinity of Vabaduse square. Television showed images of a kiosk in front of the Kosmos cinema first being looted and later set alight while bystanders took photos with mobile phones. Tatari street also sustained heavy damage. Reports said that the Woodstock bar on that street was torched, though a nearby resident said no signs of fire were immediately visible Friday morning.

Buildings on Endla street were also heavily effected. There rioters smashed nearly every ground floor window as well as second and third story windows in the first block leading from the site of the monument site.

Tallinn's historic Old Town was not spared. Shop windows on several streets were broken, and a jewelry store on Viru street appears to have been looted.

Damage is estimated to run into the millions of kroons (hundreds of millions of euros). The crisis commission has proposed that government funds be used to cover some of the cost.

City authorities have banned the sale of alcohol in shops after 2 p.m. effective until May 2. Reports say that many of those who participated in disturbances were drinking, and many of the commercial establishments looted were those that sold alcohol.

Task cycle:

1. Discuss the text with your neighbour. Ask your teacher for any vocabulary you need.
2. Spend a few minutes preparing a short summary of the text. Report it to the class.
3. Analyze the situation with 2 of your neighbours. Could this night have a different ending? What was done wrong by the police? What could be done differently by the police, the Estonian Government?

Language focus:

- ▶ the teacher highlights the vocabulary
- ▶ the teacher highlights grammar

homework: Write a short report of the night of 26th of April from the point of view of the police officer/ a rebel.

4. ESTONIAN DISASTER RELIEF TEAM (EDRT)

Pre – task:

- Brainstorm on ideas about Estonian Disaster Relief Team.

Task

Read about Estonian Disaster Relief Team.

ESTONIAN DISASTER RELIEF TEAM

Introduction and objectives

The Estonian Disaster Relief Team (EDRT) is a part of the basic training , exercises and preparation system in the area of rescue and crisis management, which objective is to be ready and respond with experts or a bigger team to international emergencies, and to support as appropriate in case of any emergencies in Estonia. The Estonian Rescue Board ensures the preparation, equipping and the readiness of the EDRT.

The main objective of the EDRT is to ensure the readiness of the Republic of Estonia for participation in international rescue and humanitarian operations and thereby represent and introduce Estonia on the international arena.

Other important objectives of the EDRT are:

- to strengthen the reputation of Estonia on the international arena by assisting in the development of the role of an assisting country;
- to improve readiness level of the rescue service for carrying out rescue works in Estonia;
- to improve the professionalism of the rescue and medical staff through communicating the knowledge acquired in the course of actual missions, training exercises and in-service training and courses;
- to develop cooperation with the rescue services and Disaster Relief Teams of other countries.

Capacities

The EDRT comprises five units: search and rescue unit (U-SAR), which also includes sniffer dog handlers with dogs, technical search group, and rope rescue group; medical unit (MED); chemical unit (NBC), which includes the dangerous substances identification, chemical rescue and decontamination groups; support unit (SUP), which task is to erect the team camp, ensure communication and IT solutions, and take care of the everyday needs of the team during missions or training exercises; experts group (EXP), which arranges and manages the work of the team during missions, training exercises and everyday activities. The experts group also comprises specialists with special skills, e.g.explosive ordnance disposal specialists and evaluation-coordination specialists.

Joining the team and training

Any person wishing to join the EDRT reserve must be a citizen of the Republic of Estonia who is at least 21 years of age and is proficient in one foreign language, has secondary education, at least 3-year work experience, a driving licence for category B motor vehicles, and a written consent of his employer for participation in the work of the Disaster Relief Team, and is not punished pursuant to criminal procedure.

A base course is organized regularly for the new members of the EDRT, plus special courses and training exercises. In addition to this at least one or two in-service trainings are organized to each unit, plus personal preparation.

The best training method includes table-top and field exercises. EDRT regularly participates in major international training events. This gives a good opportunity to test the whole spectrum of the knowledge and skills required in the course of a foreign mission starting from the preparation for and dispatching on the mission up to the actual management of the team and its returning home.

www.rescue.ee

Task cycle:

1. Discuss the text with your neighbour.
2. Report the class what you were reading.

Language focus:

- ▶ the teacher highlights the vocabulary
- ▶ the teacher highlights grammar

homework 1: Make an interview between a journalist and a team member of EDRT after the catastrophe in Indonesia.

homework 2: Read about the history of the EDRT (<http://www.rescue.ee/1454>). Prepare to talk about it in the class.

CHAPTER 4. FIRE SAFETY

1. PREVENTION WORK (EDUCATING POPULATION, FIREFIGHTING SPORT, EVENTS)

Pre – task:

- Brainstorm on ideas about Prevention Work.

Task

Read about Prevention Work.

PREVENTION WORK

The general aim of prevention work is to create the environment, where every person values safety and security. It would help to lessen the number of accidents, injured and people who get killed due to these accidents.

The Rescue Board is responsible for:

- shaping attitudes and manners by organising different events and media campaigns;
- developing and spreading materials about general safety;
- giving lectures on important safety topics;
- advising people, companies, organizations, etc;
- developing and elaborating Acts.

It is very important to concentrate on young generation in creating the safe life style in our society. As it is easier to shape the views as to change them, most prevention work is directed to young people.

In co-operation with rescue services and non-profit associations evacuation trainings are held, with the lectures on fire safety, in kindergartens, schools and orphanages. Additionally, children can see plays which talk about fire safety. Rescue dog NUBLU is the mascot of the Rescue board. It is created to help to do prevention work which is considered as important as rescuing people from rivers or burning houses. NUBLU helps to prevent accidents and the factors which may cause accidents, lessen the circumstances of negligent behaviour, educate the public about fire safety and secure our society. He can be found participating in drills, trainings, plays, youth camps, hobby groups and events of firefighting sport.

In co-operation with regional rescue services different competitions are organized every year. The aim of these competitions is to give the children a possibility to discuss the issues of fire safety, firefighter`s job, etc. The results of these competitions are usually drawings, poems, essays, etc.

The Rescue Board also organises, as part of prevention work, different summer camps for children at the age of 7-15. The duration of the summer camp is 5 days. Every day different topics are introduced to the children. For example, during Hypodermic Needle Day the children are introduced the basics of first aid.

Firefighting sport has a long tradition in Estonia. National competitions are held every year, organized by the Rescue Board, with county teams participating (there are 15 counties in Estonia). Events are organized for different age groups, and youngsters are invited.

The Estonian national firefighting sports competition includes the following events:

- 100 m obstacle course (for youngsters and men);
- Climbing a training tower using a hooked ladder (for youngsters and men);
- Exercise with an extending ladder (for men);
- Relay race 4x100m. (for youngsters and men);
- Deploying motor pump (for youngsters and men);
- Deploying hose-line from pump appliance (for crews).

The Baltic Firefighting Sport Competition is held every year. Men's and youth teams take part. The Baltic competition features the same events as the Estonian national competition, except that deploying a hose-line is not included. Estonia as other Baltic States always takes part in this competition, while Belarus, Poland and Sweden have participated too. International Technical Committee for the Prevention and Extinction of Fire (CTIF) sports competition is being held over every four years and Estonian National Team takes part in it.

Since 2002 Estonian National Firefighting Sports Team also participates in World Cup and European Cup competitions held by the International Sport Federation of Fire and Rescuers.

www.rescue.ee

Task cycle:

1. Discuss the text with your neighbour.
2. Report the class what you were reading.
3. Look at the list of advice. Why do you think the advice is given? Think of reasons for each piece of advice and make a list of accidents which might happen as a result of ignoring the advice.
 1. Keep a close eye on oil or fat on the cooker. And don't fill your chip pan too full. Chip pan fires are very common.
 2. Keep curtains well away from fires and cookers. Make sure electric fires are not too close to furniture or drying clothes.
 3. Never smoke in bed. And beware of falling asleep in a chair when you're smoking. Don't leave burning cigarettes in ashtrays.
 4. Always unplug the television and other electrical appliances when you are not using them to make absolutely sure they are safe. Otherwise a fault can cause a fire. Remember too that fires can be caused by faulty wiring. Check that your plugs are correctly wired and sockets are not overloaded.
5. Outdoor fires:

1. Fireworks cause tragedies every year. Teach your children to handle them carefully. And do not let children get too close to bonfires in case they fall onto them.
2. Use camping stoves with great care. They can be very dangerous, especially with your children around.
3. Do not let children have matches or candles inside a tent if they're camping.

Language focus:

- ▶ the teacher highlights the vocabulary
- ▶ the teacher highlights grammar

homework: Write an essay What can every person in our society do to create safer and more secure environment?

2. FIRE SAFETY

Pre – task:

- Brainstorm on ideas about Safety in Case of Fire.

Task

Read about Fire Safety.

FIRE SAFETY

The construction works must be designed and built in such a way that in the event of an outbreak of fire:

1. the load-bearing capacity of the construction can be assumed for a specific period of time;
2. the generation and spread of fire and smoke within the works are limited;
3. the spread of the fire to neighbouring construction works is limited;
4. the safety of rescue teams is taken into consideration.

Obligations and rights of state supervision over fire safety.

- 1) supervision of the compliance of sites, activities, and the operation of devices with fire safety requirements;
- 2) supervision of the compliance of planning, design and construction with fire safety requirements;
- 3) application of administrative coercion in the event of a violation of fire safety requirements;
- 4) pre-trial proceedings in matters of violations of fire-safety requirements in the cases and pursuant to the procedure provided by law.
- 5) recording and analysis of fires;
- 6) dissemination of information concerning fire safety;
- 7) co-ordination of comprehensive and detailed plans;
- 8) approval, in accordance with the fire safety requirements, of building design documentation submitted upon application to a local government for the issue of written consent, a building permit or a permit for use of construction works.

The national rescue service agency or a local government rescue service agency has the right to conduct an expert assessment of fire-related issues arising from comprehensive and detailed plans submitted for co-ordination and building design documentation submitted for approval.

In order for the expert assessment specified in subsection (2) of this section to be conducted, the national rescue service agency or a local government rescue service agency has the right to involve persons who are competent to conduct an expert assessment or evaluation of comprehensive or detailed plans, building design documentation or construction works (experts). An expert shall present his or her opinion in writing.

Expenses relating to the conduct of an expert assessment specified in subsection (2) of this Act, including the expert's fees, shall be covered by the person who wishes to build or use a construction works. The costs of the expert assessment shall be determined by a decision adopted by the head of the national rescue service agency or the head of a local government rescue service agency. The expert's hourly wage specified in this section shall not be higher than an amount equalling three times the hourly wage corresponding to the salary rate at the highest level of the salary scale for state public servants.

State fire safety supervision officials have the right to:

- 1) enter any territory, building or space with the knowledge of the possessor of the site and with the objective of inspecting compliance with fire safety requirements;
- 2) obtain information necessary for their work from persons and agencies free of charge;
- 3) suspend the use of a site, an activity or the operation of a device if a fire risk or other threat to human life, health, property or the environment requiring rapid intervention is discovered.

State fire safety supervision officials are required:

- 1) to be guided by this Act and other legislation regulating fire safety and state supervision over fire safety;
- 2) to prepare fire safety inspection reports or issue precepts on the basis of the fire safety inspection of sites,
- 3) to maintain the confidentiality of business secrets which become known to them upon the performance of their duties;
- 4) where necessary, to inform a county governor or a rural municipality or city government of violations of fire safety requirements.

Task cycle:

1. Discuss the text with your neighbour.
2. Report the class what you were reading.
3. What are you obligated to do when you have discovered a fire?

Language focus:

- ▶ the teacher highlights the vocabulary
- ▶ the teacher highlights grammar

homework: Write a column to the magazine introducing safety rules in case of fire.

3. SUPERVISION

Pre – task:

- Brainstorm on ideas about Supervision

Task

Read about Supervision.

SUPERVISION

During the fire safety inspection of a site, the compliance of the site, activities, and operation of devices with fire safety requirements is inspected. The possessor of a site shall be informed of a forthcoming fire safety inspection. Fire safety inspection shall be carried out in the presence of the possessor of the site or a person authorised by the possessor.

A fire safety supervision official carrying out fire safety inspection of a site shall:

- 1) show his or her identification, explain the aim of the fire safety inspection and the acts involved to the possessor of the site or a person authorised by the possessor;
- 2) enable the possessor of the site or a person authorised by the possessor to observe his or her activities and, on the demand of the possessor of the site or the person authorised by the possessor, provide explanations;
- 3) in the event of a violation of fire safety requirements, explain the nature of the violation to the possessor of the site or a person authorised by the possessor and demand termination of the violation;
- 4) prepare a fire safety inspection report concerning the fire safety inspection or, in the event of a violation, issue a precept for the elimination thereof;
- 5) make a decision concerning suspension of an activity or suspension of the operation of a device;
- 6) listen to any objections raised by the possessor of the site or a person authorised by the possessor and, on the demand of the possessor or person authorised by the possessor, document the objections in the precept.

A state fire safety supervision official shall prepare a fire safety inspection report if no violation is detected upon the fire safety inspection of a site. A fire safety inspection report shall set out:

- 1) the time and place of preparation of the report;
- 2) the given name, surname and position of the person who prepares the report;
- 3) the name and address of the possessor of the site and the given name, surname and official title of the person authorised by the possessor to be present at the fire safety inspection;
- 4) the name and address of the site and the time of performance of the fire safety inspection;
- 5) the extent of inspection of the site;
- 6) the signature of the person who prepares the report and the time of delivery of the report;
- 7) if the possessor of the site so requires, the possessor or the person authorised by the possessor shall be given one copy of the report against a signature.

Task cycle:

1. Discuss the text with your neighbour.
2. Report the class what you were reading.

Language focus:

- ▶ the teacher highlights the vocabulary
- ▶ the teacher highlights grammar

homework: Imagine a situation when you are a state fire safety supervision official and you have to prepare a report about the situation in The Public Service Academy. What points would you mention in your report?

Useful web addresses

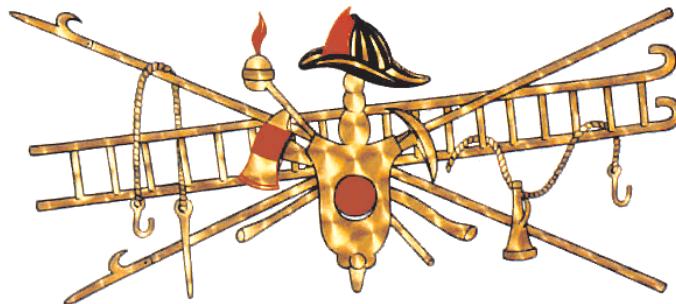
Useful links

1. http://en.wikipedia.org/wiki/Natural_hazards
2. <http://en.wikipedia.org/wiki/Firefighter#Equipment>
3. http://en.wikipedia.org/wiki/List_of_historic_fires
4. http://en.wikipedia.org/wiki/Glossary_of_firefighting_terms
5. <http://en.wikipedia.org/wiki/HAZMAT>
6. http://en.wikipedia.org/wiki/Fire_fighting
7. http://en.wikipedia.org/wiki/Fire_protection
8. <http://en.wikipedia.org/wiki/Smoke>
9. <http://en.wikipedia.org/wiki/Fire>
- 10 http://en.wikipedia.org/wiki/First_aid
11. http://en.wikipedia.org/wiki/Category:Medical_equipment
12. <http://www.fireengineering.com/videos/index.html>
13. www.rescue.ee
14. www.kriis.ee
15. <http://dict.sisekaitse.ee>
17. <http://news.bbc.co.uk/>

THE FIREFIGHTER'S CREED

Author Unknown

When I'm called to duty god
wherever flames may rage
give me strength to save a life
whatever be its age
Help me to embrace a little child
before it is too late
or save an older person from
the horror of that fate
Enable me to be alert
to hear the weakest shout
and quickly and efficiently
to put the fire out
I want to fill my calling and
to give the best in me
to guard my neighbour and
protect his property
And if according to your will
I have to lose my life
bless with your protecting hand
my children and my wife.



WORD LIST

Chapter 1, Unit 1, 2

inland fire	squad
administrative duty	bomb threat
operational unit	extinguish (v)
civil emergency	peat fire
bomb disposal	alerting service
EOD	rescue services
EDRT	regional rescue services
fire safety	emergency response centre
rescue service	fire station
preparedness	regional rescue services department
fire safety inspection	fire brigade
main fire station	rescue authority
support fire station	Director-General of the Department for Rescue Services
detached team	chief executive officer of emergency services
equipment	senior executive fire officer
receive an emergency call	executive fire officer
deploy (v)	shift officer
ambulance vehicle/car	fire sub-officer
submit(v) information	station officer
process (v) information	sub-officer
fill (v) the information	fire fighters
supervise (v)	senior fire fighter
co-ordination	fire inspector; fire safety officer
disaster area	officer in charge
manmade disaster	chief executive officer of communications

Chapter 1, Unit 3

destroy(v)	medical treatment
put out (v)	urban (adj)
respond to (v)	suburban (adj)
perform duties	industrial site
hose (n)	rural (adj)
hydrant (n)	grassland
position ladder (v)	hazardous materials
victim(n)	prevention
salvage (v)	incident
survivor(n)	suppress the blaze (v)
fire line	injury
smoke jumper	flame (n)
maintain (v)	poisonous (adj)f
flammable (adj)	explosive (adj)

Chapter 1, Unit 4

report (n)	structural collapse
fire behaviour	confined space
construction	damage
fire scene	

Chapter 1, Unit 5

fire engine	fire hose
fire helmet	water curtain
face shield	nozzle
safety harness	ladder
security rope	rung; round
rescue rope	railing
personal protective equipment	hook ladder
breathing apparatus	extending ladder
fire extinguisher	tower ladder; aerial ladder
firefighting water	rescue chute
firefighting foam	jumping cushion
extinguishing powder	firefighter's axe
hydraulic rescue equipment	floor saw
spreader	cutter
ram	fire beater
emergency medical services bag	rescue service vehicle
hose laying lorry	hazardous materials unit
pioneer unit	water tender
gear unit	personnel carrier
ladder unit	lead unit; command unit
boom ladder truck	water pipe
fire boat	stretcher
shovel (n)	spotlight
winch	mine rescue

Chapter 1, Unit 6

dispatch (v)	team leader, sub-officer
rescue work co-ordinator	reconnaissance
be in charge	fire hearth
additional force	supervision
preserve public order	casualty
ensure traffic control	senior executive fire officer
issue orders	executive fire officer
demolition work	shift officer
chief commander	fire sub-officer
operative duty officer	station officer

Chapter 1, Unit 7

spill	asphyxiation
crude	electrocution
fertilizer	drowning
pesticide	heart attack
varnish	oxygen
barges pipeline	artificial respiration
refinery	resuscitation

dumper	fracture
oil slick sheen	foreign matter
insulate	vomit
boom	CPR
skimmer	lung
shovel	fatigued (adj)
gravel down	tourniquet
boulder	choke (v)
sewer	foreign object
poor visibility	pale
dirt	nauseous
air pollutant	bruise
emission	antiseptic solution
sandstorm	bandage
negligent	absorbent cotton
prohibit	gauze pad
controlled burning	adhesive tape
first aid	suture kit

Chapter 1, Unit 8

clearance	limited mobility
hypertension	severe obesity
diabetes	approval
mental illness	exempt from
deviation	smoke diver
pregnancy	requirement
reduced capability	torch
search (n)	demolition tool

Chapter 2, Unit 1

solve problems	dispatcher
board	urgent advice
data	life-threatening
telephone operator	perform first aid, CPR
emergency service	

Chapter 2, Unit 2

construction	stream
engage	issue orders
set back-fire	reconnaissance
block ditches	Determine

Chapter 2, Unit 3

survival skill	winchman
survive (v)	beam (n)
engine (n)	accommodation facility(n)
target	catering house(n)
navigator	commercial building(n)
service building(n)	sports and health centre(n)
cultural centre(n)	administrative- and office building(n)
warehouse(n)	public service building(n)
building for forestry(n)	transportation building(n)
media centre (n)	hunting and fishery(n)

household building(n)	other means of transportation
production room(n)	ancillary premise(n)
utility room	lobby
staircase	attic
heating room	technological device
container reservoir	communications
flue	peat field
peat bog	dumping ground
new construction	dry grass
canebrake	grain field
hayfield (grassland)	civil protection committee
hand grenade	plane bomb
infantry line	mine thrower mine
missile	antitank mine
bazooka	arson
other malicious act	ignorance
breakage of device	radioactive pollution
natural disaster	bomb threat
bomb notice	electrical fault
production break-down	intentionally-made false call
face shield	

Chapter 3, Unit 1

crisis management	international relations
immediate risk	violence
property	crisis management team
environment	international crisis
urgent intervention	risk analysis
mitigation	crisis management plan
natural disaster	solve emergency situation
international emergency	crisis management training
international call for help	crisis management committee
resolve (v)	risk analysis report

Chapter 3, Unit 2

region	scope
consequence	relief effort
flood	shelter
tidal wave	seismic sensor
natural disaster	warning system
devastate	rehabilitation
tsunami	debris
extinction	hazard
threat	landslide
loose rock	global warming
activity related hazard	manmade hazard

Chapter 3, Unit 3

crisis communication	hurricane
earthquake	explosion
handle.sth	rumour
preparation	expand

volunteer	assume
myth	

Chapter 3, Unit 4

ad hoc	carry out (v)
call for assistance	assist (v)
evaluation	search and rescue unit
render (v)	decontamination group
budget of costs	dispatch
establish	punished pursuant
request	humanitarian aid

Chapter 4, Unit 1

prevention	participate in
media campaign	obstacle course
elaborate	climb
competition	relay race
appliance	held(v)

Chapter 4, Unit 2

construction	dissemination
outbreak (n)	comprehensive (adj)
load	approve (v)
bear (v)	written consent
spread (n)	permit
obligation	conduct assessment
compliance	issue (n)
device	expenses
violation	possessor
proceeding (n)	obtain (v)
suspend (v)	intervention
legislation	performance
rural municipality	precept

Chapter 4, Unit 3

enable (v)	elimination
observe (v)	suspension
demand (n)	detect (v)
provide (v)	termination
explanation	nature of...