



JICA Kansai



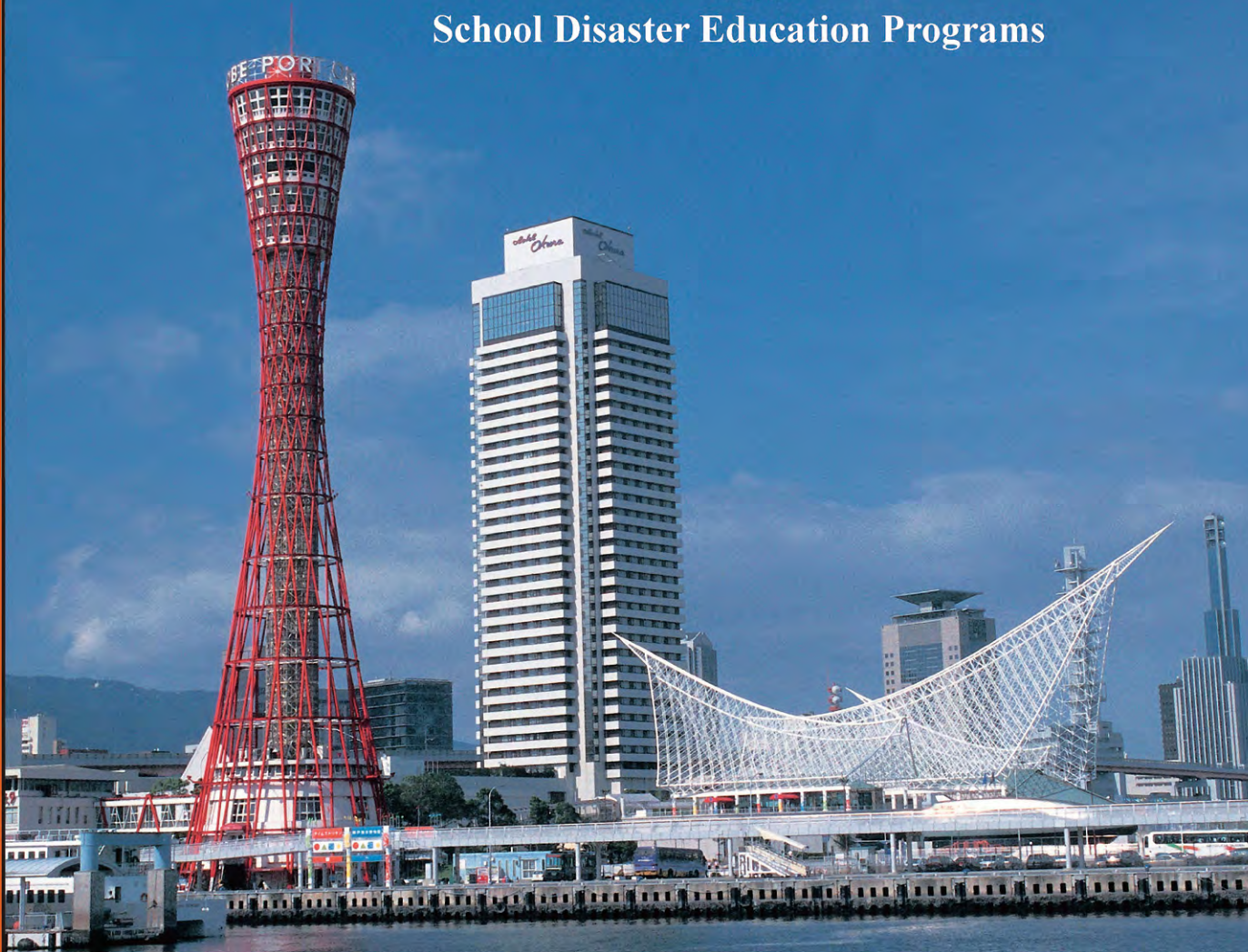
Disaster Reduction Learning Center (DRLC)

KOBE City Fire Bureau (KCFB)

"BOKOMI" Guidebook

- Sharing Lessons Learned by the City of Kobe from the Great Hanshin-Awaji Earthquake -

Community Emergency Drill Programs and School Disaster Education Programs



PORT OF KOBE



Kobe City calls community based voluntary organization for disaster risk reduction as "Disaster-Safe Welfare Community."
The short name for a Disaster-Safe Welfare Community is "**BOKOMI**".



“BOKOMI” Guide Book

Sharing Lessons Learned by the City of Kobe
from
the Great Hanshin-Awaji Earthquake

**Community Emergency Drill Programs
and
School Disaster Education Programs**

January 2010 (1st edition)
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1. Background to the Creation of the Guidebook

The Great Hanshin-Awaji Earthquake which occurred at 5:46 a.m. on January 17, 1995 caused devastating damage in the Hanshin-Awaji region including Kobe City.

The earthquake destroyed a large number of houses and fires broke in many parts of the city.

This made it nearly impossible for rescue units and firefighting units to reach and operate at all the disaster sites.

Therefore, rescue operations were conducted by citizens at many disaster sites in the city.

Citizens also battled the fires by forming bucket brigades to carry water to the fires.

However, they did not have enough equipment to act in an organized manner nor did they get appropriate training routinely.

Kobe City learned lessons from the earthquake and the city government has focused on establishing and developing voluntary organizations for disaster risk reduction in communities. It is also distributing various disaster risk reduction equipment and materials, assisting the organizations in conducting different emergency drills and offering them subsidies to conduct disaster risk reduction activities.

Kobe City calls these community based voluntary organization for disaster risk reduction as “Disaster-Safe Welfare Communities.” The short name for a Disaster-Safe Welfare Community is BOKOMI, which is the abbreviation of its Japanese name “*Bosai Fukushi Komyunithi*”.

The Kobe City Board of Education is also developing various educational materials on disaster risk reduction which can be used in schools, in order to pass on the lessons learned from the earthquake to young people.

This guidebook introduces a series of emergencies drill programs which can be conducted by community based voluntary organization for disaster risk reduction and a series of disaster education programs mainly targeting elementary schools. (The content is taken from a booklet produced by the Kobe City Fire Bureau.)

The Kobe City Fire Bureau and JICA Kansai have been conducting “Community-Based Disaster Risk Reduction” training program for presenting cases of the Disaster-Safe Welfare Community in Kobe to each country in the world since 2007, with the participation of as many as 150 or more officers in charge of disaster risk reduction from about 45 countries frequently hit by natural disasters (as of March 2015). The program introduces the methods and practical examples of the community based voluntary organization for disaster risk reduction “BOKOMI” in Kobe. Participants from each country bring what they learned in Japan back to their countries and practice BOKOMI in a form suitable for their country or region.

We hope that this guidebook can provide useful information for conducting emergency drills

and techniques to connect community-based disaster risk reduction activities and disaster education at school, when you establish and nurture community based voluntary organizations for disaster risk reduction in your country.

We hope that usage of this guidebook can contribute to disaster risk reduction in your country.

[Cases of Disaster Risk Reduction Activities Conducted by Ex-participants]



A disaster education event for elementary school children (Chile)



A disaster risk reduction workshop for local residents (Myanmar)



A volunteer firefighting corps of local residents (Iran)

2. Kobe's Community Based Voluntary Organization for Disaster Risk Reduction—"BOKOMI"

Kobe's community based voluntary organizations for disaster risk reduction "Disaster-Safe Welfare Communities" are nicknamed BOKOMI which is the abbreviation of its Japanese name "*Bosai Fukushi Komyunithi*".

The establishment of BOKOMI was promoted after the Great Hanshin-Awaji Earthquake. Model organizations were established in 11 districts in the city starting from 1995. Currently, 191 districts in the city have their BOKOMI, covering the whole area of Kobe City (BOKOMI have been organized in 100% of the Kobe City districts).

BOKOMI are established based on municipal elementary school district by the residents.

The reason why BOKOMI are based on elementary school districts is because there is an existing "Welfare Community" organization established for welfare-purposes in each elementary school district and a disaster risk reduction (*bosai*) organization was integrated into the existing organization.

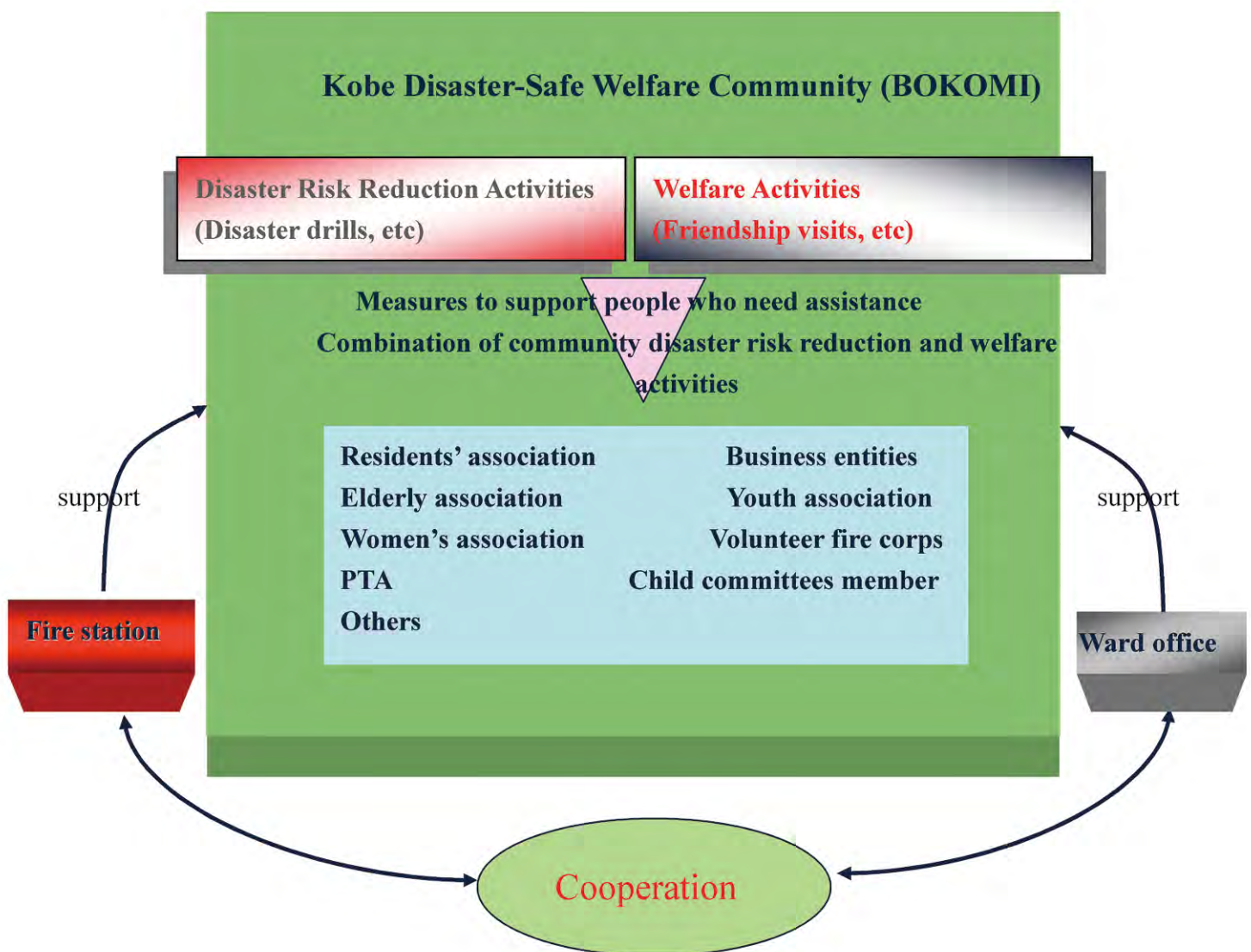
Also elementary schools serve as evacuation sites for communities in emergencies (such as disasters and crimes) in Japan. This is another reason why BOKOMI is established in each elementary school district, so that each BOKOMI can operate their evacuation site in the case of emergency.

The process of establishing BOKOMI in local areas is the following. Firstly, the establishment of a community based voluntary organization for disaster risk reduction is discussed and decided on by local government organizations including the local city office (ward office) and the local fire station, together with leaders of local residents' associations, women's associations, elderly associations, volunteer fire corps, PTAs, etc.

Once the establishment of BOKOMI is decided on, the equipment and materials needed for the activities are distributed from the local government (Kobe City) and storehouses are installed in local parks, in preparation for emergencies.

In normal times, each BOKOMI conducts various emergency drill programs as explained in later pages including how to use the provided equipment and materials, as part of the activities for preparing for major disasters.

In order to enable the utilization of people's networks in case of emergency, BOKOMI also conduct welfare activities (such as keeping in touch with and holding lunch gatherings for the elderly who live alone) as an effort to cover both community welfare activities and community disaster risk reduction activities. This is a characteristic feature of the community based voluntary organizations for disaster risk reduction in Kobe City which were established based on the lessons learned from the Great Hanshin-Awaji Earthquake.



3. Kobe's Disaster Education (Collaboration between Community Based Disaster Risk Reduction Activities and Disaster Education at School)

Cooperation between BOKOMI and a School

In Japan, “disaster education” is not a specific single subject unlike “arithmetic” or “Japanese.” Disaster education in Japan includes: learning about the mechanisms of volcanic eruptions and earthquakes, the weather, etc. in “nature study” lessons; learning about natural disaster risk reduction, the roles of the police, the fire service and community based disaster risk reduction activities, etc. in “social studies” lessons; and learning about the importance of lives and the spirit of mutual help in “ethics” lessons and “integrated learning” lessons. In addition, students typically learn about disaster risk reduction through emergency drills which prepare them for disasters and fires, together with evacuation drills which schools are required to conduct by law in Japan.

In Kobe City, local BOKOMI assist with these emergency drills at school, because cooperation between schools and communities has the following advantages.

Advantage 1 BOKOMI can give advice and guidance to schools because they conduct emergency drills in their community regularly and they have the know-how, equipment and materials for the drills.

Advantage 2 The community residents experienced the Great Hanshin-Awaji Earthquake and therefore they can directly pass on lessons learned from the earthquake to children who did not experience it. In addition, school teachers who did not experience the earthquake are also increasing in number. Community residents who participate in school activities can assist teachers who have not experienced earthquakes and enable more effective disaster education through which children can really understand its importance.

Advantage 3 Children's parents and the PTA who do not often participate in community drills are more likely to participate in emergency drills held at school. This provides a chance for them to become interested in participating in community based disaster risk reduction activities and this can lead to the revitalization of the BOKOMI.

Cooperation among Local Government Organizations and their Assistance to Communities

Kobe City Board of Education and KCFB (which supports BOKOMI) jointly developed a series of disaster education programs which can be used at schools (mainly elementary schools) and other educational situations. These programs were then compiled in a booklet. (The series of school disaster education programs explained in this guidebook is taken from that booklet.)



[KOBЕ City Disaster Education Support Programs]

This booklet includes a host of education programs through which children can obtain knowledge including techniques for disaster risk reduction while thinking on their own and enjoying at the same time.

In addition to a series of disaster education programs, the booklet also explains how schools can cooperate with the local BOKOMI when conducting each program.

The booklet is distributed to BOKOMI as well as to schools with the aim of promoting integrated disaster education activities by communities and schools.

It is expected that using the same booklet on disaster education will promote coordinated activities between communities and elementary schools.

KCFB also coordinates schools and communities by deploying a person in charge of community based disaster risk reduction to each fire station, who is responsible for giving advice on disaster education and drills, renting educational materials and other equipment and materials, as well as dispatching fire station staff to communities and schools.

**Framework for Cooperation among Various Sectors in Hyogo Prefecture and Kobe City
(Local Government Organizations, Universities, Communities, Schools, Private
Companies, NGOs, etc.)**

Since the Great Hanshin-Awaji Earthquake which occurred 20 years ago, people in Hyogo Prefecture and Kobe City have learned the importance of cooperation among various sectors (“horizontal” relationship) for improving the disaster risk reduction capabilities of communities and promoting disaster education at schools, rather than each sector individually conducting their activities (“vertical” relationship).

Through the 15 years of experience, the cooperative framework has been developed as shown below, through which various sectors in Hyogo and Kobe are now supporting the activities of communities and children.

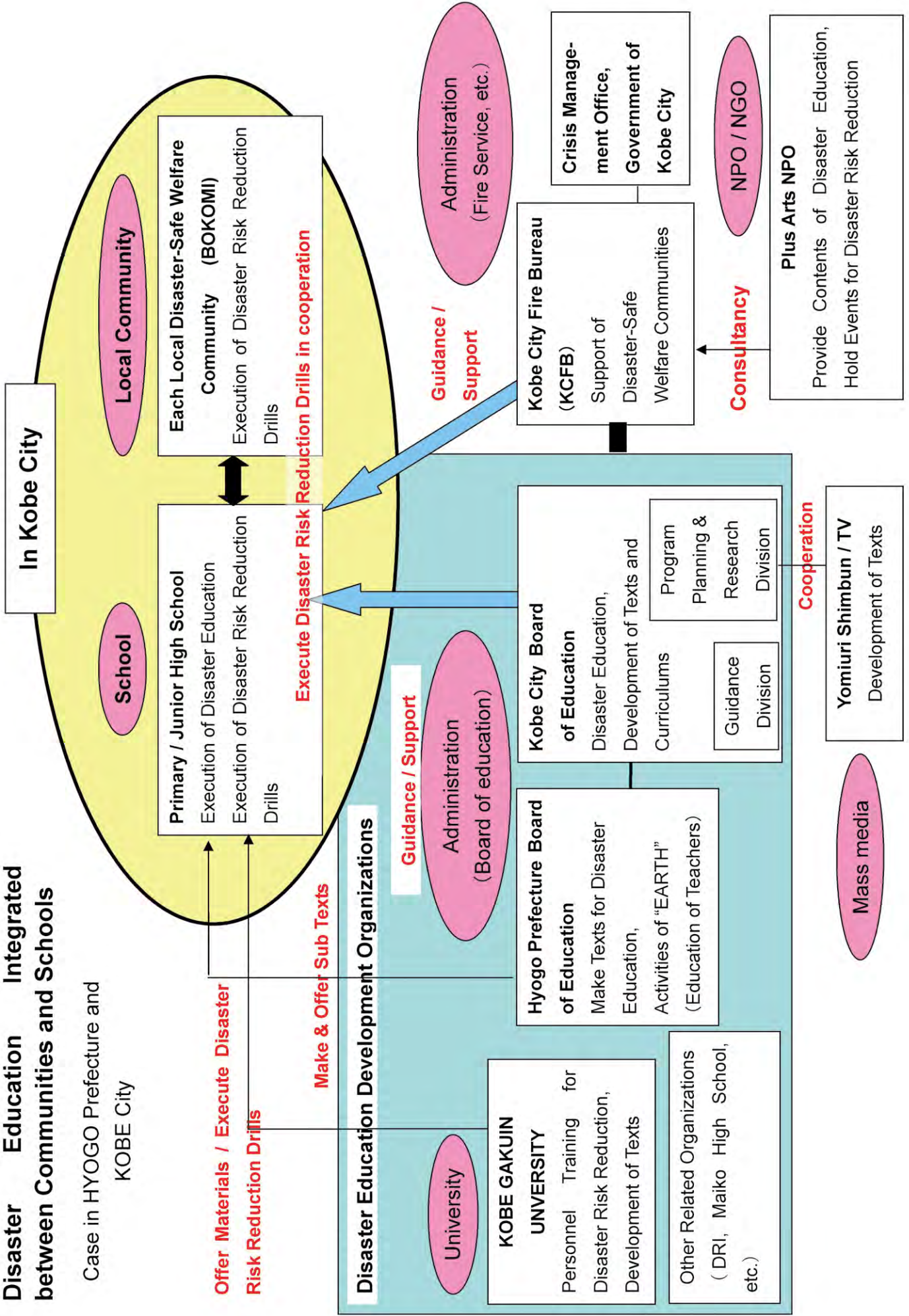
(See the diagram in the next page [Disaster Education Integrated between Communities and Schools].)

We hope that you will use this information when you promote disaster risk reduction in communities in your country, because establishing collaboration between community based disaster risk reduction activities and disaster education at schools can lead to both the revitalization of the community activities for disaster risk reduction and better quality disaster education at schools.



Disaster Education Integrated between Communities and Schools

Case in HYOGO Prefecture and
KOBÉ City



4. How to Use This Guidebook

(1) Community Emergency Drill Programs

This part explains various drill programs which can be conducted by local community residents, as guidance for community based voluntary organizations for disaster risk reduction.

This part also includes the information about how to develop a drill plan and how to conduct emergency drills when implementing drills in local communities.

When you instruct local communities to conduct emergency drills, you can utilize the programs in the guidebook and share the content with community members.

If no specific framework for disaster risk reduction exists in the area, you could utilize existing districts and different actors in the districts (such as residents' organizations, religious institutions, women's associations and mutual support groups). If there are groups which are working on specific issues in the community (such as welfare, the environment and healthcare), you could work with these groups and foster them so that they can work on disaster risk reduction activities in addition to their current activities.

For example, groups which work on

“	welfare	+ disaster risk reduction”
“	the environment	+ disaster risk reduction”
“	healthcare	+ disaster risk reduction”

can be considered.

It is also recommended that you will check and discuss with related organizations in advance on which government organizations can assist disaster risk reduction activities in what ways (in terms of drill guidance, renting equipment and materials, providing a place for the activities, financial support, etc.) so that you can present the information to residents.

(2) School Disaster Education Programs

This part explains various disaster education programs which mainly target elementary schools. This part also includes examples of a school disaster management plan and a school annual disaster education plan.

The programs (and descriptions and references of the programs) are designed to be instructed and utilized mainly by teachers, but most programs can be conducted in cooperation with local communities. So you can utilize the information for implementing community-and-school joint educational activities.

In Kobe, local communities (BOKOMI) assist schools in conducting emergency drills which are normally held following evacuation drills at the schools. Local government organizations including fire stations also assist in the emergency drills.

(3) Points to Note

The program content is mainly for activities involving earthquake preparedness. The emergency drill programs and disaster education programs are also based on conditions in Japan. Therefore, please modify the content to meet your country's actual conditions when you use the information.

In Japan, governmental support for emergency drills and first aid training is mainly provided by fire stations. Any governmental support suited for the actual condition of each country should be provided through appropriate frameworks.

It is also a good idea to review and discuss among government organizations on the cooperative framework of government organizations in this field.



**Formation of
Community Based
Voluntary Organization for
Disaster Risk Reduction
–“BOKOMI”**

Organization Part

1. Measures to Encourage Organized Activities for Disaster Risk Reduction

(1) Disaster Responses in a Voluntary Organization (Kobe City's system)

For disaster responses in each community, the Disaster-Safe Welfare Community (BOKOMI) is working on disaster risk reduction activities even in peacetime with teams specialized in firefighting, rescue and aid, etc. formed within the organization. Once a disaster occurs, the BOKOMI headquarters will be set up by those specialized teams to direct each district block.

In a time of disaster, it is ideal that those teams formed in advance perform disaster risk reduction activities in their assigned fields. However, depending on damage suffered, it is not necessarily the case that all members of each specialized team assemble at the site and that the system functions as planned.

In a time of disaster, it is a realistic response that even if not all BOKOMI members can assemble at the site, those who have actually assembled operate the organization and rebuild each team with local residents who have gathered.

Against such a background, Kobe City has recently been preparing a new direction system for Disaster-Safe Welfare Communities.

(2) Preparation of a System to Direct and Arrange Local Disaster Risk Reduction Activities (Policies for Team Formation)

Modeling after the ICS (Incident Command System), a disaster management system standardized in the U.S., Kobe City has assigned roles to Voluntary Organizations for Disaster Risk Reduction (BOKOMIs) and local residents as shown below. They are expected to play these roles as initial responses to a disaster. Introducing the ICS mechanism into Disaster-Safe Welfare Communities will enable them to have definitive directing and arranging functions. (See “Images of BOKOMI activities in a disaster” on the next page.)

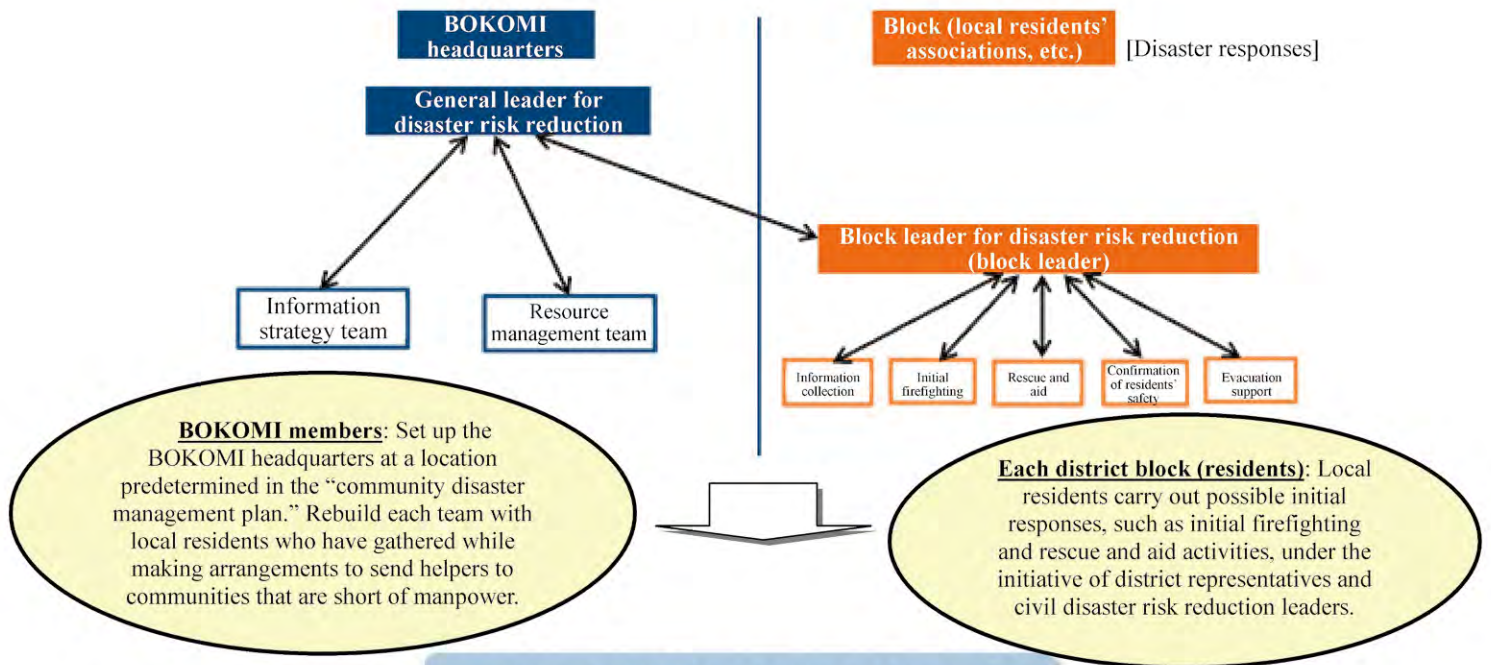
Disaster-Safe Welfare Community (BOKOMI) members: Set up the BOKOMI headquarters at a location predetermined in the “community disaster management plan.” Rebuild each team with local residents who have gathered while making arrangements to send helpers to communities that are short of manpower.

Each district block (residents): Local residents carry out possible initial responses, such as initial firefighting and rescue and aid activities, under the initiative of district representatives and civil disaster reduction leaders.¹

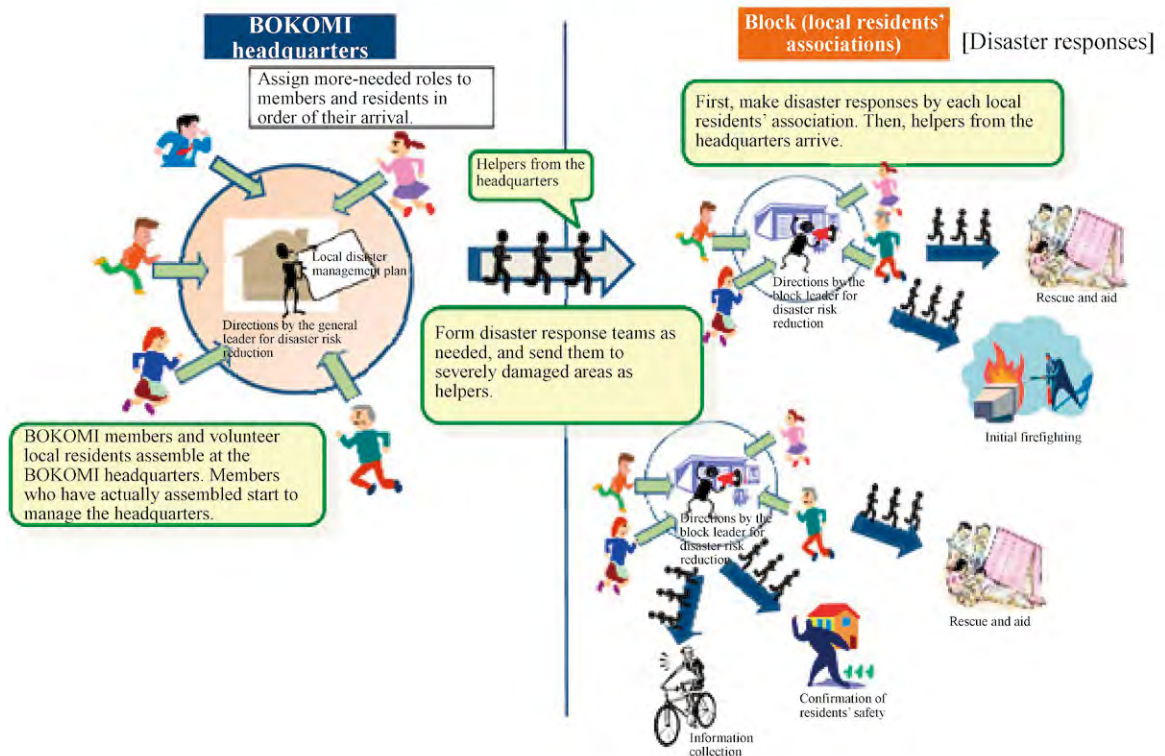
¹ Civil leaders nurtured through training by the Kobe City Fire Bureau. They are expected to take a leading role in each community during routine emergency drills and when a disaster occurs.

< Images of BOKOMI Activities in a Disaster >

Organizational chart in a time of disaster



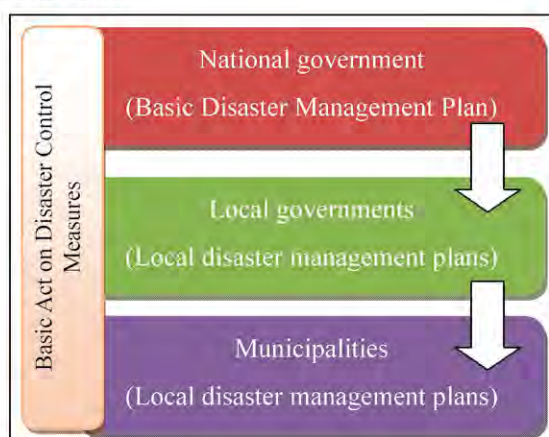
Images of BOKOMI Activities in a Disaster



2. Development of a Community Disaster Management Plan

(1) What is a Community Disaster Management Plan?

Japan has a local autonomy system with a three-layer structure consisting of the national government, local governments, and municipalities, under which local governments and municipalities develop a local disaster management plan for each region in accordance with the Basic Disaster Management Plan established by the Central Disaster Management Council of the national government.



The recently revised Disaster Countermeasures Basic Act recommends the development of a “community disaster management plan” for each community, a section even smaller than a municipality, which is the smallest administrative section and is expected to develop a “local disaster management plan.” The community disaster management plan specifies actions to be taken at the site, or at the community level, during a disaster. In Kobe City, a community disaster management plan is developed for each Disaster-Safe Welfare Community (BOKOMI).

Local disaster management plans in Kobe City are characterized primarily by their style of specifying actions and plans to be taken in a disaster in the form of checklists. A checklist is described in two steps: a “chapter clearly stating such issues as where BOKOMI members and other people in the block should gather” and a “chapter listing items essential in disaster responses as a checklist.” This style enables every BOKOMI member or local resident to immediately participate in organizational management with this list in his/her hand when a disaster strikes.

To clearly show actions to be taken in a disaster, in addition to a community disaster management plan, “prior instructions for action” describing what disaster response teams in each block should do at the site, including “information collection and communication” and “confirmation of residents’ safety,” are also developed. Emergency responses will be facilitated if “prior instructions for action” are handed over to and shared among BOKOMI members or are posted in easy-to-recognize places at the BOKOMI headquarters (base).

When a large-scale disaster occurs, it is necessary in the first place to integrate the power of neighboring residents into disaster responses. During this process, it is important for all residents in the community to build action teams in cooperation and flexibly perform disaster responses, including sending helpers to other communities that are short of manpower, under

the direction of the BOKOMI.

(2) Points in Developing a Community Disaster Management Plan

- a. Determine the location for the BOKOMI headquarters where BOKOMI members will assemble when a disaster occurs.
- b. Determine places where local residents will gather for each block to perform individual disaster responses (e.g., places where machinery and materials and/or water tanks/resources are available).
- c. Check for disaster risks and hazardous locations in the community through prior discussion and town walking.
- d. Closely examine the checklists for response items necessary for the community.

Community Disaster Management Plan for XX Community (Sample) Prepared on MM/DD, 20xx

☆Points in Developing a Community Disaster Management Plan☆

In Kobe City, a “community disaster management plan” is developed for each Disaster-Safe Welfare Community as the manual for disaster responses in the community so that Voluntary Organizations for Disaster Risk Reduction can act more effectively during a disaster. Initial responses necessary in a disaster differ depending on disaster types (wind and flood damage, earthquake, tsunami, etc.). For any disaster type, initial responses basically include the setup of the BOKOMI headquarters and information collection. On the other hand, the setup of the headquarters and evacuation behavior before a disaster occurs lead to reduced damage in the case of “wind and flood damage” and a “tsunami,” while the rescue of and aid for the injured and initial firefighting after a disaster occurs are prioritized in the case of an “earthquake.”

It is hoped that this sample manual is consulted as guidance for the activities of Voluntary Organizations for Disaster Risk Reduction when you practice community based disaster risk reduction in your country.

Community Disaster Management Plan for XX Community (Sample)

Criteria for setting up the BOKOMI headquarters

- When a seismic intensity of 5 lower or greater is recorded or a tsunami warning is issued on the coast of the Seto Inland Sea in Hyogo Prefecture
- When a disaster is caused by an earthquake or the disaster may expand
- When a special warning is issued
- When landslide disaster alerting information is issued in Kobe due to heavy rain, etc.

Action policies

Lessons learned from past disasters prove the significance of mutual help among neighbors. However, when a disaster occurs, you should check your surroundings well, ensure your own safety, and perform disaster risk reduction activities within the limits of your ability, while not attempting too much.

Location for the BOKOMI headquarters	Ex) Elementary School A (Park B in the case of a tsunami)		
Locations for block headquarters	Ex) Park B, community center, temple, etc.		
Locations of the storage sites of disaster reduction machinery and materials	Ex) Park B, community center, temple, etc.		
Designated evacuation shelters	Ex) Elementary School A		
Fireproof water tanks for firefighting	Ex) In Park B		
Places where the list of vulnerable people is stored	Ex) At Elementary School A		
Radio device holders	Ex) Chairperson C		
Hazardous locations in the community	Ex) Near River D Under Bridge E, etc.		

(1) Wind and Flood Damage

[Before the occurrence of a disaster]

1. Setup of the BOKOMI headquarters

- Disaster-Safe Welfare Community (BOKOMI) members who have assembled set up the BOKOMI headquarters. (It is expected that not all BOKOMI officials will assemble in a disaster.)
- Elect the general leader for disaster risk reduction from BOKOMI members who have assembled.
- The general leader for disaster risk reduction organizes BOKOMI members who have assembled into teams (information strategy team, resource management team, etc.).
- Set in place at the headquarters such materials as a local map, the disaster risk reduction map, and the list of vulnerable people.

Prepare a whiteboard and simili paper to share information among the members.

2. Information collection and communication

- Collect weather information, landslide disaster alerting information, etc. via the disaster management radio system or the radio/TV.
- Communicate the information collected to the block leader by fixed-line telephone, mobile phone, etc.
- In case a flood or landslide risk is expected, call on vulnerable people to voluntarily evacuate as early as possible. Meanwhile, make arrangements (e.g., securing of personnel) for action teams in each block to guide vulnerable people to their evacuation.

3. Ensuring of communications in the organization

- Determine in advance the means and order of communication (Who communicates to whom in what way?).

4. Evacuation guidance for vulnerable people

- In case a flood or landslide risk is expected, action teams in each block guide vulnerable people to their evacuation if they cannot evacuate on their own.

5. Securing of machinery and materials

- Secure disaster risk reduction machinery and materials as well as emergency food in preparation for a disaster.

[Immediately after the occurrence of a disaster]

1. Directions by the BOKOMI headquarters

- (Set up the BOKOMI headquarters in the same way as [Before the occurrence of a disaster].)
- The information strategy team collects information on damage in the district, and gives instructions on specific activities (e.g., information collection and communication, confirmation of residents' safety, rescue of and aid for victims) to each block depending on the damage suffered.
- In case a block is short of action team members, send personnel to the block from the headquarters.

2. Disaster responses for each block

- Citizens able to participate in disaster risk reduction activities gather at their nearest "storage site of disaster risk reduction machinery and materials" or "quakeproof water tank," and perform disaster risk reduction activities in small groups.
- The block leader (e.g., chairperson of the local residents' association) organizes citizens who have gathered into teams, such as one for "rescue and aid," in accordance with the nature of the disaster.

3. Information collection and communication

- Collect weather information, landslide disaster alerting information, etc. via the disaster management radio system or the radio/TV.
- Communicate the information collected on the weather, etc. to the block leader by fixed-line telephone, mobile phone, etc.
- The block leader surveys the situation, including damage suffered and residents' safety in each block, by fixed-line telephone, mobile phone, etc.

4. Confirmation of residents' safety

- Confirm residents' safety based on the list of vulnerable people prepared in advance.
- If the list is not prepared in advance, confirm residents' safety in cooperation with commissioned welfare volunteers and child committee members.
- * Differentiation by, for example, applying a mark or a note to the door of each home to indicate the safety of the resident(s) is confirmed is also effective.

5. Rescue and aid

- Rescue victims by using disaster risk reduction machinery and materials for each block, while paying attention to a secondary disaster.
- If a victim is injured, provide him/her with first aid such as stopping bleeding, and transfer to a medical institution.

6. Reporting to the ward office and fire station

- Report damage suffered and activities performed to the ward office and fire station.
- Report items necessary in managing evacuation shelters to the ward office, etc.

7. Setup of evacuation shelters

- Set up evacuation shelters in cooperation with school and ward officials.
- Prepare a list of evacuees.

(2) Earthquake

[Immediately after the occurrence of a disaster]

Actions by each person

1. Ensuring of safety immediately after an earthquake occurs

- If using heat, turn off the heat whenever possible.
- Once you feel tremors from an earthquake, first ensure your own safety by, for example, huddling under a sturdy table.
- Check the safety of your family.
- In the case of fire, perform initial firefighting using fire extinguishers, etc.
- Listen to the radio for information.

Activities as the Disaster-Safe Welfare Community (BOKOMI)

1. Setup of the BOKOMI headquarters

- Disaster-Safe Welfare Community (BOKOMI) members who have assembled set up the BOKOMI headquarters. (It is expected that not all BOKOMI officials will assemble in a disaster.)
- Elect the general leader for disaster risk reduction from the BOKOMI officials who have rushed into the headquarters.
- The general leader for disaster risk reduction organizes BOKOMI members who have assembled into teams (information strategy team, resource management team, etc.).
- Set in place at the headquarters such materials as a local map, the disaster risk reduction map, and the list of vulnerable people.
Prepare a whiteboard and simili paper to share information among the members.
- The information strategy team collects information on damage in the district, and gives instructions on specific activities (e.g., information collection and communication, confirmation of residents' safety, rescue of and aid for victims) to each block depending on the damage suffered.
- In case a block is short of action team members, send personnel to the block from the headquarters.

2. Disaster responses for each block

- Citizens able to participate in disaster risk reduction activities gather at their nearest "storage site of disaster risk reduction machinery and materials" or "water tank," and perform disaster risk reduction activities in small groups.

- The block leader (e.g., chairperson of the local residents' association) organizes citizens who have gathered into teams, such as ones for firefighting and rescue, at the storage site of disaster risk reduction machinery and materials in accordance with the nature of the disaster.

3. Information collection and communication

- Collect information on the earthquake, etc. via the radio/TV or the disaster management radio system.
- Communicate the information on the earthquake, etc. collected via the disaster management radio system, etc. to the block leader by such means as messengers.
- The block leader surveys the situation, including damage suffered and residents' safety in each block, by such means as messengers.
- * In an earthquake, both fixed-line and mobile phones are likely to be unavailable.

4. Confirmation of residents' safety

- Confirm residents' safety based on the list of vulnerable people prepared in advance.
- If the list is not prepared, confirm residents' safety in cooperation with commissioned welfare volunteers and child committee members.
- * Differentiation by, for example, marking the door of each home to indicate the safety of the resident(s) is confirmed and applying a note to the homes of residents whose safety is unknown is also effective.

5. Firefighting activities

- Perform initial firefighting by using a small power pump for the quakeproof water tank for firefighting and other available firefighting equipment for each block.
- Find out where the fire started.
- Allocate firefighting personnel.
- * Use of fire extinguishers or bucket brigade is also important, depending on the scale of the fire.

6. Rescue and aid activities

- Rescue the injured by using disaster risk reduction machinery and materials for each block, while paying attention to a secondary disaster.
- * Tools such as jacks, claw bars, and saws are useful in rescue operations
- Allocate rescue personnel.
- If a victim is injured, provide him/her with first aid such as stopping bleeding, and transfer to a medical institution.

7. Support for vulnerable people in their evacuation

- Support the evacuation of vulnerable people who have their homes damaged and need a shelter.
- Allocate supporters.

8. Reporting to the ward office and fire station

- Report damage suffered and activities performed to the ward office and fire station.
- Report items necessary in managing evacuation shelters to the ward office, etc.

9. Setup of evacuation shelters

- Set up evacuation shelters in cooperation with school and ward officials.
- Prepare a list of evacuees.

(3) Tsunami

1. Setup of the BOKOMI headquarters

- Even if there is no information from the city, assume that a tsunami will occur when you feel strong or persisting tremors. Set up the BOKOMI headquarters in a predetermined location unlikely to be affected by a tsunami, such as an elementary school or a community welfare center.
- Disaster-Safe Welfare Community (BOKOMI) members who have assembled set up the BOKOMI headquarters. (It is expected that not all BOKOMI officials will assemble in a disaster.)
- Elect the general leader for disaster risk reduction from the BOKOMI officials who have rushed into the headquarters.
- The general leader for disaster risk reduction organizes BOKOMI members who have assembled into teams (information strategy team, resource management team, etc.).
- Set in place at the headquarters such materials as a local map, the disaster risk reduction map, and the list of vulnerable people.
Prepare a whiteboard and simili paper to share information among the members.
- In case a block is short of action team members, send personnel to the block from the headquarters.

2. Information collection and communication

- Collect information on a tsunami warning/advisory, etc. via the disaster management radio system or the radio/TV, and communicate the information collected to the block leader by fixed-line telephone, mobile phone, etc.
- Call on vulnerable people to evacuate immediately.

3. Evacuation support

- Residents in the block support the evacuation of vulnerable people who are practically unable to evacuate immediately, and call out, “Get away! A tsunami will come!” while taking the lead in the evacuation.

Who are vulnerable people?

Anyone who has difficulty in evacuating to a safe place or living at the evacuation shelter, and needs help from people around him/her under those circumstances

- Persons with disabilities
- Persons who require nursing care

- Elderly people (living alone or with their elderly spouse)

Persons practically unable to evacuate on their own, including patients with intractable diseases, infants, pregnant or nursing women, and those who were injured in a disaster

(4) Common Items

[Several hours to three days (72 hours) after the occurrence of a disaster]

1. A review of the sharing of roles

- Review roles based on the assembling status of BOKOMI officials and the disaster situation.

2. Management of evacuation shelters

- Managing evacuation shelters in cooperation with school and ward officials and volunteers for disaster restoration
- Consideration for women and families with small children
- Consideration for pets evacuated with their owners
- Consideration for vulnerable people (e.g., setup of a separate space at the evacuation shelter for the welfare of vulnerable people in line with the wishes of those people and their families; use of the school nurse's office)

* In particular, it is important to have other evacuees understand the necessity of special consideration for persons with intellectual, mental, or developmental disabilities who have difficulty in living in a group and persons with internal disorders such as dialysis patients and ostomates (persons using an artificial anus/bladder).

- Refer those who require a welfare evacuation shelter (see the next page) to a public health nurse of the city who makes the rounds of evacuation shelters.

3. Collection of daily life information

- Collect daily life information and spread it among residents in the community

4. Firefighting and crime-prevention patrol

- Form patrol teams and patrol the community in turn.

Information Collection and Communication

1. **Collect information on the earthquake, etc. via the radio/TV or the disaster management radio system.**
2. **Grasp disaster damage in the community.**

Points in evacuation support

1. Information collection

The information collected should be written on a whiteboard, etc. in chronological order.

(1) Information collection via the radio and other media

Use the radio/TV and the disaster management radio system as well as the telephone if such communication media are secured.

(2) Information collection from the government

Directly contact related agencies to collect necessary information. Also visit the municipal office on a regular basis to collect published information.

(3) Information collection from each block

2. Communication

Effectively use a bullhorn, a bulletin board, or a circular as a means of communication.

Confirmation of Residents' Safety

1. Collection of information on residents' safety

2. Confirmation of residents whose safety is unknown

- (1) Confirm residents' safety based on the list of vulnerable people prepared in advance.
- (2) If the list is not prepared, confirm residents' safety in cooperation with commissioned welfare volunteers and child committee members.

Procedure of confirmation at a residents' home

1. Check the appearance

Check the appearance of the home for any serious damage.

2. Call out the name

Call out the name of the family outside the gate.

3. Knock on the door

If there is no response, knock on the door while calling out the name.

4. Check the garden, the back door, etc.

If the family's condition is still uncertain, check the garden, the back door, etc.



5. Apply a confirmation sticker

Apply a sticker to the front door in accordance with the condition confirmed.

Sticker color coding:

- Aid/support required ● Safety unknown ● Safety confirmed; no need for support

Rescue and Aid Activities

- 1. Perform rescue activities in cooperation with residents by using disaster risk reduction machinery and materials (jacks, saws, claw bars, etc.) for each block.**
- 2. Provide aid (first aid).**

Rescue and aid procedure

1. Grasp of disaster damage

- (1) Check the conditions (including the severity of injuries) of people left in collapsed buildings.
- (2) Check the condition of building collapse and whether each collapsed building has a space for rescue personnel to enter.
- (3) Check for risk factors for a secondary disaster.

2. Prevention of a secondary disaster

- (1) Remove lightweight obstacles, such as wooden blocks, galvanized iron sheets, and pieces of broken glass.
- (2) When removing obstacles that surround a large object such as a pillar, beam, etc., support or fix the large object with rope, etc. to prevent the object from moving or falling.
- (3) Set fire extinguishers and water buckets in place in preparation for the possibility of fires. The main gas valve and circuit breaker should be turned off as early as possible.

3. Rescue of victims

- (1) Use your hands instead of machinery after burrowing through near the victim.
- (2) Do not forcibly pull out the victim.

4. First aid

If the victim is bleeding, apply pressure to the wound with clean gauze, etc.

Firefighting Activities

- 1. Perform initial firefighting by using a small power pump for the water tank for firefighting and other available firefighting equipment for each block (or local residents' association).**
- 2. Find out where the fire started, and allocate firefighting personnel.**

Firefighting activities

1. Selection of water for firefighting

- (1) Select water for firefighting located near the origin of the fire. Pay attention to the wind direction, and use water located upwind when the wind is strong.
- (2) When taking water for firefighting from a river, throw in a strainer in the direction of water flow and keep it submerged.
- (3) Give attention to the vertical interval between the pump and the water surface.

2. How to extend the hose

- (1) To prevent its breaking, kinking, or dragging, a hose should be bent with a large curvature at corners of a road or a building.
- (2) Hoses should be securely joined together to prevent water leakage.

3. When to spray water

- (1) Start spraying water after receiving OK signals from personnel in charge of extending the hose and holding the nozzle head.
- (2) The freeing port cock should be opened gradually in consideration of recoil at the nozzle head.

Support for Vulnerable People in Their Evacuation

Support the evacuation of vulnerable people who need to evacuate to a shelter.

Points in evacuation support

1. Elderly people living alone

Quick communication and evacuation guidance, confirmation of their safety, and grasp of their condition are necessary.

2. Bedridden persons who require nursing care and elderly people

Wheelchairs, stretchers, and other supportive equipment may be necessary in their evacuation.

3. Persons with dementia

Confirmation of their safety, grasp of their condition, and evacuation guidance are necessary.

4. Persons with visual impairment

Speech-based communication and explanation, as well as evacuation guidance, are necessary.

5. Persons with hearing impairment

Use of a hearing aid, as well as communication and explanation using sign language, characters, and illustrations, are necessary.

6. Persons with difficulty in speech

It is necessary to grasp their condition by using sign language and/or writing messages.

7. Persons using a mechanical ventilator at home

It is necessary to secure a power source at the evacuation shelter.

3. Contents of Municipal Support for Voluntary Disaster Risk Reduction Activities

Municipal support for voluntary disaster risk reduction activities is important for Voluntary Organizations for Disaster Risk Reduction to act smoothly.

In Kobe City, the Fire Bureau is engaged in support for activities by Voluntary Organizations for Disaster Risk Reduction, or Disaster-Safe Welfare Communities (BOKOMIs). Meanwhile, fire stations at a total of 10 locations in the City are encouraging the daily activities of Voluntary Organizations for Disaster Risk Reduction in cooperation with such organizations in their respective competent areas.

This chapter presents the main contents of the Kobe City Fire Bureau's support for activities by Disaster-Safe Welfare Communities. It is hoped that you will consult this information when you launch and support Voluntary Organizations for Disaster Risk Reduction in your country.

(1) Provision of Disaster Risk Reduction Machinery and Materials to Newly Formed Organizations

As the initial support for a newly formed BOKOMI, Kobe City provides it with disaster risk reduction machinery and materials the community has chosen from among 54 items, including storage of the machinery and materials, a small power pump, a jack, a claw bar, and a saw.

The disaster risk reduction machinery and materials provided are stored in a disaster risk reduction warehouse prepared in a park or school in the community, and used at routine emergency drills and when a disaster occurs. The key to the warehouse door is kept by an organization member living nearby, and the door is unlocked each time the machinery and materials are used.

(2) Subsidies for Part of Activity Costs

While BOKOMIs are, in principle, voluntary organizations, Kobe City provides subsidies for part of the costs of their activities.

The subsidies apply to two types of costs as shown below. Once a year, applications for the subsidies are accepted and the subsidies are provided. (The subsidy amounts are as of 2015.)

- 1) Costs for management and activities (¥140,000/year for each BOKOMI)
Costs for usual activities and the updating of machinery and materials
- 2) Costs for proposal-based activities (¥200,000/year for each BOKOMI whose plan has been adopted)
Costs for community-oriented or pioneering activities proposed independently by each BOKOMI and adopted as a project worthy of a special subsidy.

Costs for proposal-based activities are subsidized on an application basis. Activity plans applied for the subsidy are examined once a year at the Fire Bureau to determine those to be subsidized.

(3) Nurturing of Civil Disaster Risk Reduction Leaders

In the Great Hanshin-Awaji Earthquake in 1995, initial firefighting and rescue activities were performed by citizens, including especially organized activities for disaster risk reduction in communities where disaster reduction leaders were present.

In view of this experience, Kobe City conducts “civil disaster risk reduction leader training” every year at each fire station to offer an opportunity to learn roles as a leader in a disaster and how to instruct at various emergency drills. To date, about 20,000 leaders have been nurtured (as of 2015).

<Training Curriculum (Example)>

- Classroom training: outline of a Voluntary Disaster Reduction Organization, emergency drills, and other measures for disaster risk reduction
- Practical training: communication drill, firefighting drill, rescue and aid drill (transport of and first aid for the injured), disaster imagination game (DIG; simplified emergency drill using a map), check on evacuation shelter facilities, check on the storage of emergency stockpiles, self-evaluation meeting

(4) Support for Community Based Disaster Risk Reduction Activities through a System Assigning Firefighters to Each District

In April 2007, Kobe City introduced a “system assigning firefighters to each district” in an effort to support activities by Disaster-Safe Welfare Communities. The system is aimed at building relations between residents and the City and providing support in line with local needs by assigning firefighters with a lot of field experience to each Disaster-Safe Welfare Community.

If the assigned official is absent from the fire station due to field work, an assistant official in charge will respond to requests from the community.

Annual Schedule of a Fire Station (Example)

Activity \ Month	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Guidance on development of the annual plan											○	○
Subsidy-related desk work	○	○	○	○							○	○
Civil disaster risk reduction leader training												○
Guidance at drills, lectures			○	○		○	○	○	○	○		○
Meetings with BOKOMI representatives			○			○			○			
BOKOMI events in the assigned area										○		
Meetings with personnel in charge of disaster risk reduction at the station	○						○					
Training for the community at the station	○											

(5) Preparation of a Reference Guidebook
 In March 2009, the Kobe City Fire Bureau published a manual to promote activities by Voluntary Organizations for Disaster Risk Reduction, and distributed it to a total of 191 BOKOMIs in the City.

<Contents of the Manual (Example)>

- Introduction to the menus of various drills
 (This guidebook presents certain drill menus.)
- Subsidy application form, desk work instructions/formats
- How to use and maintain disaster reduction machinery and materials
- Sample leaflets on activities



“BOKOMI Bookmark”
 Kobe City’s manual on activities by
 Voluntary Disaster Reduction Organizations

(Reference 1) Activity notification form for Disaster-Safe Welfare Communities

When a drill is conducted, the BOKOMI hosting the drill submits an activity notification in advance to its nearest fire station. This process allows the official in charge to understand voluntary disaster risk reduction activities in the community and adjust his/her schedule to visit the drill site.

Activity Notification for Disaster-Safe Welfare Community

To Chief of Fire Station

Name of Organization: _____
 Name of Submitter of Notification: _____
 Telephone No. (Home): _____
 Telephone No. (Mobile): _____

Postponed to July 20 in cases of rain

Date and Time of Activity Held	July 19 (Saturday) 2014 11:00–13:00	
No. of Participants	140 (Including 90 students and children)	
Location of Activity	Tsurukabuto Elementary School (2-10-1 Tsurukabuto, Nada Ward)	
Scale of Activity	<input checked="" type="checkbox"/> Entire community <input type="checkbox"/> Block (smaller scale)	
Details of Activity	<input checked="" type="checkbox"/> Disaster drill <input type="checkbox"/> Meeting/general meeting <input type="checkbox"/> Lecture on disaster risk reduction <input type="checkbox"/> Other ()	
Initiative for Disaster Prevention Education	<input type="checkbox"/> Implementation of disaster prevention education <input type="checkbox"/> Tsunami disaster prevention education for citizens	
Initiative for Supporting People Needing Assistance in Emergencies	<input type="checkbox"/> Training for evacuation support for people needing assistance <input type="checkbox"/> Related to infants <input type="checkbox"/> Joint training with social welfare organization <input type="checkbox"/> Support for non-Japanese nationals	
	<input type="checkbox"/> Evacuation support plan (preparation of name list, etc.) <input type="checkbox"/> Training for operation of welfare evacuation shelter <input type="checkbox"/> Other ()	
Details of Implementation (Check the applicable boxes.)	Comprehensive drill	<input checked="" type="checkbox"/> Comprehensive drill (details are in the attachment)
	Training in fire-fighting	<input checked="" type="checkbox"/> Portable pump <input checked="" type="checkbox"/> Fire extinguisher <input checked="" type="checkbox"/> Bucket for fire extinguishing <input checked="" type="checkbox"/> Other (Content: Assembly of temporary water supply stand)
		First aid
	Equipment	<input type="checkbox"/> Handling <input type="checkbox"/> Explanation <input type="checkbox"/> Ropework
	Seminar on disaster risk reduction	<input type="checkbox"/> Seminar <input type="checkbox"/> Video <input type="checkbox"/> Other
		<input type="checkbox"/> Acceptance of school tour students from other prefectures (Including JICA training participants)
	Information communication	<input type="checkbox"/> Information collection <input type="checkbox"/> Information dissemination <input type="checkbox"/> Disaster imagination game (DIG)
	Evacuation related	<input type="checkbox"/> Evacuation guidance <input type="checkbox"/> Other (Details:)
Other	<input type="checkbox"/> Other activities (Details:)	
Request for loan/implementation (Check the applicable boxes.)	<input checked="" type="checkbox"/> Water fire extinguishers (20 units) <input type="checkbox"/> Water hoses (pcs.) <input type="checkbox"/> Canvas buckets (pcs.) <input checked="" type="checkbox"/> Nozzle (Spray type 1 pcs.)	
	<input checked="" type="checkbox"/> Water fire extinguishers (2 units) <input type="checkbox"/> Smoke experience house <input type="checkbox"/> Fire experiment using tempura <input type="checkbox"/> AED for training	
	<input type="checkbox"/> Dummy for stretcher transport (dummies) <input type="checkbox"/> Water tank for bucket brigade <input type="checkbox"/> Brochure ()	
	<input checked="" type="checkbox"/> Other Targets for water discharge using small motor pump (2 targets) Self-standing simple water tank (2-ton) 1 unit	
Date of equipment loan: July 18 (Friday) Date of return: July 19 (Sat)		Name of person who received equipment:
Name of fire station employee who received notification:		Section and team in charge of site: Section Team
Name of fire corps volunteer who received notification:		Squad and number of people in charge of site:
Notes	1 Supervision by fire station personnel may be cancelled due to disaster or other circumstances.	
	2 The display of fire truck(s) will be allowed as long as it does not hinder disaster response tasks.	
	3 Conduct training giving due consideration to safety management.	
	4 Fill in the "Initiative for Disaster Prevention Education" section if children under 18 years old will participate in the activity for disaster prevention education: Check "Instruction by leader" for an activity lead by a civil disaster prevention leader and "Tsunami disaster prevention education for citizens" for the activity conducted for raising awareness and disaster prevention education for tsunami evacuation for citizens and children. (Multiple answers accepted.)	
	5 Check "Initiative for supporting people who need assistance in case of emergency" if the training or initiative targets people who need assistance when a disaster occurs, including elderly people, people with disabilities, foreigners, and infants.	

(Reference 2) Listing of machinery and materials provided to a newly formed BOKOMI

Small power pump for firefighting	Gloves
Firefighting hose and accessories (nozzle, clamp, etc.)	Leather gloves
Fire extinguisher for drills	Armband
Fire extinguisher (powder/liquid)	Zip-up jacket
Canvas bucket	Flashlight
Mobile box for firefighting	Transistor megaphone
Self-sustaining simple water tank	Bullhorn for PR drills
Oil pan for fire drills	Storage (in five sizes)
Shovel	Salvage sheet
Claw bar	Handheld generator
Folding harpoon	Transceiver
Harpoon	Handheld facsimile
Ax	Double extension ladder
Hammer	Hand cart
Simple jack	Unicycle
Pickax	Folding rear car
Bottle clipper	Stepladder (also used as a ladder)
Folding stretcher	Cord reel
Hydraulic concrete crusher kit	Floodlight
Handheld concrete crushing device	First-aid kit (for 20 persons)
Ceiling hook	Plastic tank (for drinking water)
Rescue rope	Wooden clappers (oak)
Safety belt for rescue	
Sling	
Winch	
Chain saw	
Helmet	

Community Emergency Drill Programs

Creating an Annual Event Plan

When holding emergency drills, it is necessary to encourage as many local residents as possible to participate in the event. Creating a plan will make it easy to inform community residents of the dates of drills and preparations can be made in a planned manner.

1. Process for Creating an Annual Event Plan

Implementation of emergency drills should be discussed at meetings of local leaders (from the residents' association, etc.) and meetings conducted by residents. Related government officials should be invited in order to seek assistance from the government.

Information needed to decide on the dates for drills should be obtained before having discussions. Therefore, community event dates including non-disaster risk reduction related events should be identified.

- (1) Put down all events you can think of with the dates for the events.
 - (i) Disaster Risk Reduction Related Events
Emergency drills (fire drills, rescue drills, first aid training, disaster risk reduction workshops, etc.), patrols, etc.
 - (ii) Other Events
Non-disaster risk reduction related meetings and events
- (2) Arrange the identified events chronologically and create a rough annual schedule for the events.
- (3) Discuss on each event in detail in the meetings and create an annual event draft plan which includes related dates (such as dates of preparation meetings for each event and alternative dates set for the events in case of rain, etc.)
- (4) Present the draft plan to local residents and decide on an official plan after including opinions from residents.

2. Utilization of the Annual Event Plan

- (1) Emergency Drills
Emergency drills require equipment, materials and staff. The following tasks should be conducted using available dates, based on the annual event plan.
 - (i) Create a list of things which need to be prepared and check what needs to be done.
 - (ii) Prioritize and make arrangements for the things which are crucial for the drills first.
Making arrangements "ahead of time" is the key to success.

[Cooperation] Identify in advance where to rent equipment and materials and identify which government organizations can assist with the activities.

(Equipment and materials:)
(Government support:)

- * For seamless operation, it is best to aim for completing contacting and making arrangements about a month before the event.

* Details cannot be decided until right before the event date in many cases. Once the details are determined, try to communicate the information orally with community residents promptly and contact government organizations starting from those who can be contacted quickly.

(2) Main Items to Be Planned

- (i) Procedure of the drill (the date & time and drill content)
- (ii) Personnel (from the community, volunteer fire corps, the fire station, etc.)
- (iii) Equipment and materials needed for the drill
- (iv) Drill venue
- (v) Others (alternative plan in case of rain, etc.)

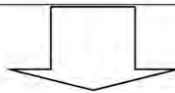
(3) Others

If the dates for multiple events overlap, the event with a higher priority should be conducted.

[Detailed Method for Creating an Event Plan (Example)]

Step 1: Writing Down All Planned Events by Category

(i) Emergency drill related events			
• Drills			
1st drill	Around late Jun. (weekend), fire drill		
2nd drill	Around mid Oct. (weekday), first aid training		
3rd drill	Around Jan. (weekend), whole-community emergency drill		
• Fire prevention patrol			
1st patrol	Around Aug.		
* The date needs to be arranged with the fire station, etc.			
(ii) Other events			
Type	Name	Date	Notes
Meetings	Community representative meeting	Apr. 2 (weekday)	City hall
	Preparation meeting with the government	May 15 (weekday)	City hall
Community events	Sports day	Nov. 5 (weekday)	XX Stadium
	Christmas party	Dec. 22 (weekday)	XX Hall
	Concert	Jan. 15 (weekday)	XX Hall
Lectures, etc.	Lecture on disaster risk reduction	Around mid Mar. (weekday)	Fire station
Others	Voluntary community cleaning	Oct. 7 (weekday)	XX Park



(STEP2)

Step 2: Arranging Events Chronologically

Date	Name	Notes
Apr. 2 (weekday)	Community representative meeting	City hall
Around late Jun. (weekend)	<u>Drill 1 [fire drill]</u>	*Late Jul. if it rains
Around Aug.	<u>Fire prevention patrol</u>	-
Oct. 7 (weekday)	Voluntary community cleaning	XX Park
Around mid Oct. (weekday)	<u>Drill 2 [first aid training]</u>	*Watch a video on disaster risk reduction if it rains
Nov. 5 (weekday)	Sports day	XX Stadium
Dec. 22 (weekday)	Christmas party	XX Hall
Jan. 11 (weekday)	<u>Drill 3 [Whole-community emergency drill]</u>	*The following week if it rains

Put the additional event here.

- Interline spaces should be left between events so that when new events are planned, they can be inserted between the relevant spaces.
- The emergency drill related events should be made clear by underlining or using colored pens.

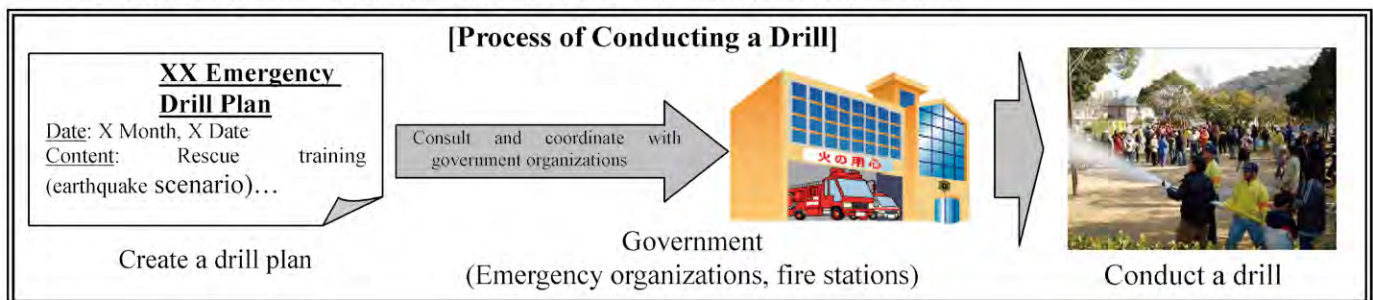
Ex) Dec. 25-31 Year-end arson prevention patrol

How to Conduct an Emergency Drill

It is difficult to take appropriate action when you suddenly face a disaster. Therefore, it is important to be prepared for disasters by repeating adequate emergency drills regularly.

1. Points to Focus when Planning an Emergency Drill

An emergency drill should focus on the following two points. (1) Is it useful when emergency occurs? (2) Can the participants obtain knowledge and skills for disaster risk reduction? It is also important to create a Drill Plan and consult with related government organizations beforehand in order to conduct an effective drill within a limited time.



2. Points to Note When Creating a Drill Plan

(1) What is the scenario?

Decide whether you will conduct a region-specific drill such as a drill for tsunami, flooding or landslide, or a drill which is useful for any region such as a fire drill.

(2) What kind of drill is it?

Once the scenario for the disaster is decided upon, determine the content of the drill such as a “drill for information gathering and information transmission,” a “fire drill,” an “evacuation drill,” a “rescue drill,” a “drill for provision of meals and water,” a “disaster imagination game (DIG),” “first aid training,” etc.

(3) Decision on a Date

Avoid holding a drill in mid-summer, mid-winter, etc. so that many people can participate in the drill. One way to obtain many participants is to conduct a drill using the opportunity of community cleaning activities or a sports event.

Make the drill hours needed for the drill not too long for participants, although the time required is dependent on the number of participants and the content of the drill.

Example of a Plan (Kobe's Case)

Emergency Drill Implementation Plan	
Organization name	XX Disaster-Safe Welfare Community
Person responsible for the drill	Taro SUZUKI (078 325 8510)
Contact person	Hanako TOYOTA (078 325 8525)
Date	Sun. Jan. 17, 2009 10 : 00-12 : 00
Venue	Playground of the Honda Elementary School 6-5-1 Kano-cho, Chuo-ku
No. of participants	About 300
Support by the fire station	Request: guidance by fire station staff
Content	<ul style="list-style-type: none"> • Handling of fire extinguishers • Bucket brigade • Spraying water from a fire hydrant • Handling of a small pump • Fire caused by deep-frying oil
Note	Request: display of a fire engine

(4) Number of Participants

Decide on the number of participants by considering the drill hours, the venue, the content of the drill, etc.

(5) Alternative Plan in Case of Rain

Decide in advance on whether the drill will go ahead, be cancelled or postponed in the case of rain. Discuss beforehand an alternative program which can be held if it rains (a video on fire prevention, a lecture on disaster risk reduction, etc.).

(6) Decision on a Venue

Choose a venue which is appropriate for the content of the drill and the number of participants. A park or the playground of a school is suitable for outdoor drills. Check how to use the facilities in advance because you may need to obtain permission or give notification to an administrator, etc. in order to use the facilities.

(7) Coordination with Government Organizations

Ask for support from related government organizations such as fire stations, before conducting a drill. In particular, consult with government organizations beforehand if you need guidance from government staff about a drill, the exhibition of a fire engine, etc. or need to borrow equipment and materials. Include the consultation content in the drill plan.

[Cooperation with Various Groups]

Besides government organizations such as city offices and fire stations, there are also other organizations which can cooperate with the activities, including local NPOs, NGOs, the Red Cross (the Red Crescent) and volunteer organizations.

It is recommended that you look for these in your area and ask for help.

(8) Accident Prevention

Take all possible care concerning the participants' safety in order to prevent accidents during a drill.

In particular, ask government organizations such as fire stations to guide and attend dangerous operations such as a fire drill using gasoline. If an accident happens, prioritize dealing with the accident (first aid operation, etc.) and take appropriate measures.

Tips for This Program

- ☆ Maintain close contact with government organizations which can provide help and conduct a drill in the local community.
- ☆ Ask for government help from the drill plan creating stage.
- ☆ Identify what kinds of drill programs can be conducted.
- ☆ Train residents who can be involved in the activities as community leaders so that residents will be able to protect their town themselves in the future.
- ☆ Be prepared for emergencies by deploying disaster risk reduction equipment and materials using government assistance.








Equipment and Materials for Disaster Risk Reduction










- *What kinds of equipment and materials are needed?* -




Learning lessons from the Great Hanshin-Awaji Earthquake, Kobe City deployed equipment and materials for disaster risk reduction in communities.

This section explains the main types of equipment and materials for disaster risk reduction.

1. Main Types of Equipment and Materials

Use	Name	Description	Photograph
Rescue	Portable concrete smashing tool	This tool smashes concrete using the reaction force created by sliding the weight on the handle. Different blades are available for different application.	
Rescue	Fire hook	It is used to break up galvanized iron roofs, wainscots, etc. It is also used to remove board-shaped debris.	
Rescue	Safety harness belt for rescue operations	It is used to ensure safety during operations at heights. An operator wears the belt around his/her waist and attaches the safety rope to a solid part of a building, etc.	
Rescue	Portable winch	It is used in combination with a rope to move things which cannot be moved by people alone, as well as to tighten ropes. The operator needs to be well informed about how to use it in order to use it appropriately.	
Rescue	Chain saw	It is used to cut wood, etc. It is important for this equipment to be maintained regularly or it may not work in an emergency.	
Rescue	Shovel	It is essential for removing earth, etc. It is also useful for making sandbags.	
Rescue	Crowbar	It is used to jimmy open doors and shutters, and to lift objects using the principle of the lever.	

Rescue	Folding saw	A folding saw is handy when carried around. It is also useful when operating in narrow spaces because of its flexibility.	
Rescue	S a w	It is suitable for cutting larger pieces of wood because it has a longer blade than a portable saw.	
Rescue	A x e	The edge of the blade is used to break up planks, etc. and the pointed part at the back is suitable for breaking mortar walls.	
Rescue	Hammer	It is suitable for breaking block walls. Care is needed when handling it because it is heavy.	
Rescue	Portable jack	It is used to lift heavy objects and to widen openings. It can only be used where the floor is solid (firm).	
Rescue	Pickaxe	It is used to dig up firm ground and to make holes in walls, etc.	
Rescue	Bolt clipper	It is used to cut reinforcing steel in reinforced concrete and block walls.	
Rescue	Hydraulic concrete crusher	It can crush concrete walls, etc. It can crush walls of up to 25 cm thick.	
Transportation	Folding stretcher	It is used to carry the injured, etc. It can be folded and put away when it is not being used.	

Firefighting	Portable power pump	Water from a natural water supply such as a river or pond as well as fire cisterns can be sprayed using the pump. This can be used in combination with a portable water tank for drills.	
Firefighting	Powder fire extinguisher for class A, B and C fires	It is a typical fire extinguisher which can be used for ordinary combustibles, oils and electrical equipment. It is reusable by refilling the powder after usage.	
Firefighting	Wet chemical fire extinguisher	It is a fire extinguisher for domestic use. It does not block the view because it is not powder. Wet chemical can be sprayed several times because it can be turned on and off.	
Firefighting	Canvas bucket	It is a water-proof canvas bucket. It can be stored easily and is easy to handle because it is light weight. It is used for bucket brigades, etc.	
Firefighting	Portable water tank (stand-alone)	It comes in many sizes. The largest tank can hold 1,000 liters of water. It is used as a water source for bucket brigades, etc.	
Fire drill	Oil pan for use in fire drills	It can be used by putting water and gasoline or kerosene into it and setting it on fire in order to practice firefighting. Do not put content exceeding the appropriate amount which is specified for each size of oil pan.	
Fire drill	Water fire extinguisher for use in fire drills	It is a fire extinguisher for training which ejects water. It is used to learn how to handle a fire extinguisher. It can be used by putting water and compressed air into it.	

- * Kobe City provided equipment and materials for each BOKOMI (community based voluntary organization for disaster risk reduction) after showing the residents a list of the equipment and materials explained above and asking them to choose what they needed, when the organization was established. Residents should have an opportunity to discuss among themselves what kinds of equipment and materials they need for their community.
- * In Kobe, the equipment and materials are stored in storehouses in local parks, etc.

2. Maintenance

Equipment and materials need to be maintained regularly. Properly maintain them so that they can be used in an emergency.

It is also a good idea to practice the handling of the equipment and materials when conducting their maintenance.

3. Maintenance Methods

(1) Equipment and Materials for Rescue Operations

- (i) Axes, hatchets, saws, shovels, crowbars, hammers, bolt clippers, etc.
Remove moisture after usage in order to avoid the rusting of metal parts and the decaying of handles. Sharpen the blades.
Apply lubricant to moving parts.

(2) Firefighting Equipment and Materials

- (i) Power pumps, etc.
Open the pump's drain cock to drain water completely before storing. Make sure to rinse inside the pump with fresh water if seawater was used.
Check the fuel and the vacuum pump oil, refill the fuel and the oil to the appropriate levels, and then pull the starter a few times.
Avoid humid places when storing pumps. During the cold season, take measures to prevent freezing after usage.

Note: Conduct a starting test together with the practice at least once a month.

- (ii) Canvas hoses, suction pipes, canvas buckets, etc.
Drain the water from hoses and suction pipes before putting them away.
Dry them well before storing after usage.

Tips for This Program

- ☆ Some portable power pumps, engine generators, etc. use a “blended fuel (mixture of gasoline and oil).” Each model uses a specific blend (such as “25:1”), and so check the instructions carefully. Be sure to use the correct amounts when you mix the fuel by yourself.
- ☆ Always check the equipment and materials before and after usage. In particular, portable power pumps and engine generators can be kept in good condition by running them. Conduct starting tests on them regularly.
- ☆ Remove batteries from equipment and store them after usage, if you have equipment which uses batteries.
- ☆ These equipment and materials for disaster risk reduction are only useful if they can be used in emergencies. Therefore, it is important to check regularly to see if they are in a usable condition. Practice using them at the same time.

Training Using “Water Fire Extinguishers for Use in Fire Drills”

This section explains the training for the handling of fire extinguishers using water fire extinguishers for use in drills. This training can be conducted with children if it is designed in the correct way.

1. Objective

Participants learn how to handle fire extinguishers using water fire extinguishers for use in drills which can be used repeatedly, by operating them in the same way as real fire extinguishers.

2. Necessary Equipment and Materials

(Item)	(Quantity)
Water fire extinguisher for use in drills	10 (depends on the number of participants)
Air compressor	1
Cord reel (extension cord)	1
Water tank (or tap water)	1
Cross-sectional model of a fire extinguisher	1 (if available)
Target for water fire extinguishers	1 set

Tips for This Program

✧ Various objects can be used as targets. People can practice how to use fire extinguishers well while having fun if targets are designed so that all the targets can be hit within one ejection period.

3. Training Using Games for Children

Targets can be designed so that children can experience a firefighting simulation while enjoying the game.

(1) PET Bottles with a Small Amount of Water in Them

The number of bottles which can be hit within one ejection time is 8 or 9.

The participants play a game where they have to hit all the bottles on a desk, etc.



(2) Making Balls Drop by Hitting them with Water

The participants play a game where they have to spray a basketball-sized ball on a stand and make it fall to the ground.



(3) Others

Using targets which spin or fall when being hit by water can make the training fun for adults as well as children.

4. Procedures

(1) Preliminary Explanation

Explain the mechanism of powder fire extinguishers, how to use them, their characteristics, etc. using a cross-sectional model of a fire extinguisher (if available) or a leaflet which shows how to use a fire extinguisher issued by fire stations or other government organizations. Also, explain the difference between a fire extinguisher for use in drills and a real fire extinguisher.

(2) Preparation

★Preparing Water Fire Extinguishers

Prepare the necessary number of water fire extinguishers. If you can obtain one extinguisher for each participant, you can fill them with water in advance, so that you do not need to bring an air compressor to the venue on the training day.

★Preparing Targets

[PET Bottles]

- Prepare empty PET bottles (1.5 L bottles if possible) in advance.
- Fill each bottle about a quarter full and put the lid on.
- Place the necessary number of bottles on a reasonably tall surface.

[Other Targets]

- You can make other interesting targets by yourselves. You can also contact fire stations or other government organizations because they might have targets which can be used for fire drills.

(3) Conducting a Drill

Participants will practice firefighting in turn. Ask for comments from fire station staff about the drill at the end of the drill.

Tips for This Program

- ☆ In the case of a real fire, if the fire spreads to the ceiling, stop fighting the fire with fire extinguishers (initial firefighting) and instead use an indoor fire hydrant, etc. or quickly evacuate and call the fire service organization.

Points to Include in the Talk to the Participants

- ☆ Ask the participants to check where in their house and their community the fire extinguishers are installed.
- ☆ Ask them to check the types of fire extinguishers installed in their house (powder type, wet chemical type, etc.).

Fire Drills Using “Powder Fire Extinguishers”

By experiencing more realistic firefighting simulations using real fire and real fire extinguishers (powder fire extinguishers), the participants can learn how to use the equipment for any emergency.

1. Objective

The participants learn how to fight fires in emergencies by practicing firefighting using real fire and powder fire extinguishers.

2. Necessary Number of Staff (In the Case of about 30 Participants)

4-5 staff

Note: Ask for attendance of fire station staff because it is a dangerous operation.

Consult with fire stations, etc. in advance if you wish to ask for their attendance.

3. Necessary Equipment and Materials (In the Case of about 30 Participants)

Note: Fire stations and other government organizations may have some of the equipment.

Borrow anything available from them when conducting a drill.

(Item)	(Quantity)
Powder fire extinguisher	5-6
Oil pan	1
Kerosene	2 L
Gasoline	1 L
Lighter	1
Torch	1
Cross-sectional model of a fire extinguisher (if available)	1

4. Outline

Place an oil pan in the center of a park. Spray the powder fire extinguisher from a position 5-6 meters upwind of the target. Move the spray as if sweeping with a broom to extinguish the fire. Gradually approach the target as the fire gets smaller, then extinguish the fire completely.

5. Procedures

(1) Preliminary Explanation

Participants learn about the mechanism and the handling of fire extinguishers by looking at a cross-sectional model of a fire extinguisher or by experiencing the handling of fire extinguishers using water fire extinguishers for use in drills, before practicing using powder fire extinguishers.



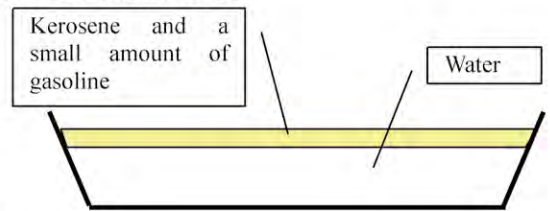
Caution!

Make sure to check the exterior appearance of powder fire extinguishers. Ones with rust on their body might explode because of inside pressure when pressing the lever, causing a severe accident. Do not use them if you find rust on their body.



(2) Preparation

- Prepare several fire extinguishers according to the design of the drill.
- Tell everybody around the site in advance that the exercise is about to start because the powder can disperse around the site when the exercise is conducted.
- Put water in an oil pan up to 2-3 cm from the bottom (to prevent scorching)
- Put kerosene in the oil pan. The appropriate amount is about 100 cc, although it depends on the size of the oil pan.
- Add a small amount of gasoline in order to ignite the fire (add gasoline right before setting the fire).



(3) Conducting a Drill

- The participants practice firefighting in turn.
- After spraying powder several times, ignition becomes difficult because extinguishing agent starts accumulating in the oil pan. Remove the agent from the pan with a net, etc. and add a small amount of gasoline again, so that fire can be ignited easily.

(4) Others

Dispose of the oils used in the drill appropriately.



Take the fire extinguisher close to the fire, and then pull the safety pin with a finger to upright.



Free the hose and aim the nozzle at the fire source.



Hold the lever hard enough to spray (move the spray as if sweeping with a broom to extinguish fire).

Tips for This Program

- ☆ In general, a degree of fire which can be fought using initial firefighting methods is until a fire spreads to the ceiling. If it happens, do not try risky initial firefighting, evacuate right away and then call the fire service organization for help.

Points to Include in the Talk to the Participants

- ☆ Wet chemical fire extinguishers are effective when oil fryers catch fire.
- ☆ It is recommended that domestic fire extinguishers should be installed in the entrances of houses (to prevent rust).
- ☆ Ask the participants to check where the fire extinguishers are installed in their community.

Bucket Brigade Training

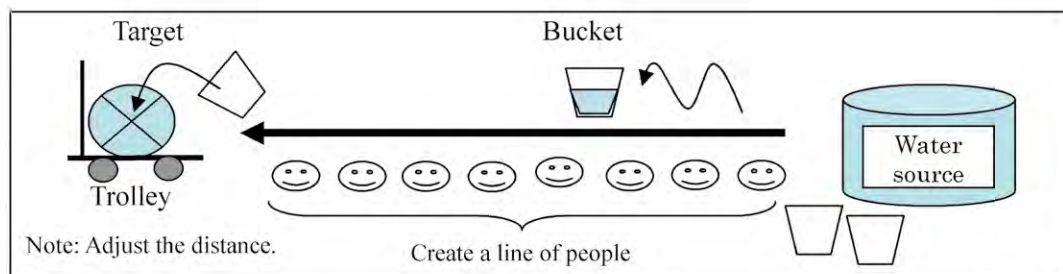
This training is designed to learn firefighting methods which can be conducted by local residents before a fire engine arrives at the site. This section explains bucket brigade methods and line arrangements of people which were used for initial firefighting at many sites during the Great Hanshin-Awaji Earthquake.

1. Objective

The participants learn about bucket brigades as an initial firefighting method in cases where portable power pumps, etc. are not available. Participants can also understand the importance of cooperation in disasters through this program as well as learning about firefighting methods.

2. Necessary Equipment and Materials

(Item)	(Quantity)
Water source (a pool, a collapsible water tank, etc.)	1
Target for bucket brigades	1 set (2 sets when holding competitions)
Trolley to place a target	1 set (2 sets when holding competitions)
Container to carry water in (a bucket, etc.)	Many (10 or more)



[Basic Example]

3. Various Training Methods

(1) Competitions

Two teams conduct bucket brigades simultaneously in a competition. Place two large plastic buckets on the trolleys as shown in the diagram above. The first team to fill the large bucket is the winner.

Watch out for accidents and injuries, because the competition method has a downside, for example participants become careless about what they are doing and they tend to forget about safety management, although it can make the training exciting.

(2) Other Variations

Anything which holds water can be used as a container besides buckets, such as washbowls, trash bins and bags.

In fact, all sorts of things which hold water were used to conduct firefighting during the Great Hanshin-Awaji Earthquake. It is recommended that a variety of things are used so that the participants realize many household products can be used to conduct bucket brigades.

In bucket brigade training, all the participants cooperate to transport water to the target.

Therefore, the training program helps the participants to learn about the importance of mutual help and cooperation.

For this reason, it is a good idea to let children participate in the training.



4. Different Line Arrangements

There are different line arrangements, each of which has advantages and disadvantages. Select a suitable arrangement in accordance with the number of participants and the type of participants (such as experienced participants or not).

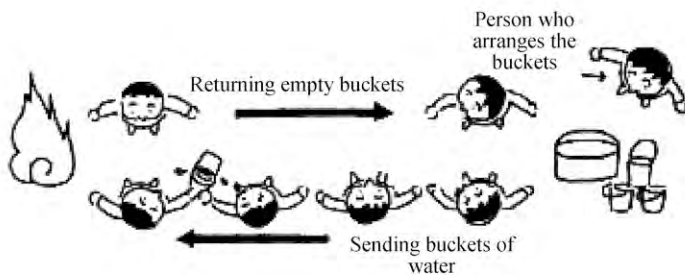
(1) One Line Relay

This is suitable when there are a small number of people.

The participants stand in one line about 1.5 meters apart, and pass buckets of water from the water source to the fire source.

About one fifth of the numbers of people in the line are allocated to take the empty buckets back to the water source.

The downside of this method is that people cannot see what is happening behind them. If necessary, allocate personnel who will watch out for the safety of the participants (for example when a line is made across a road).

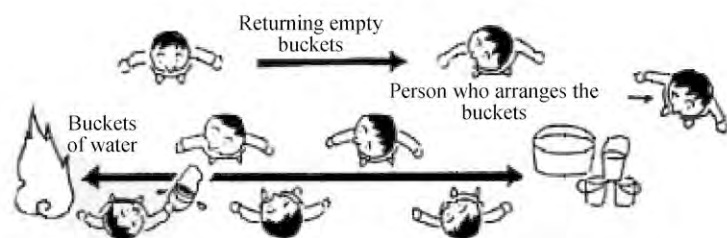


(2) Relay in a Line Where People Face Each Other

This is a modified version of the one line relay.

People stand in one line. Every odd numbered person turns 180 degrees so that they are facing in the opposite direction to the even numbered people. The odd numbered people take two steps backwards. This makes a set of people who can see between the gaps in the people facing them. They can then check to see if there are any dangers behind the people facing them.

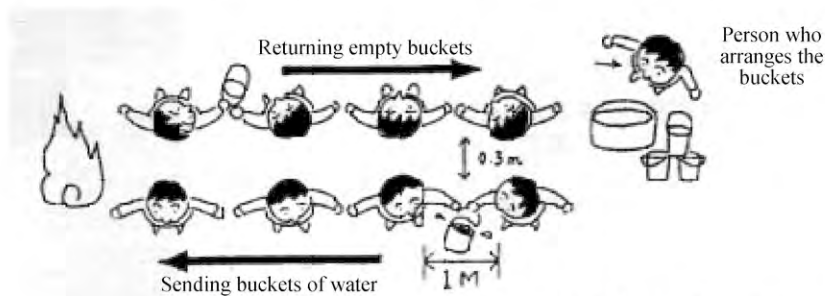
The downside of this system is that it takes longer to arrange people into position.



(3) Relay in Two Lines

This is a suitable method when there are many participants.

The people in one line pass along the buckets of water and the people in the other line pass the empty buckets back to the water source. The two lines stand with their backs to each other, so that they can conduct a bucket brigade while watching out for each other's backs (if they face each other, it will be difficult to check safety because they block each other's view). Suitable spacing is about 1 meter. If there are not enough people, allocate members with about 1 meter spacing on the sending line and allocate the rest to the returning the empty bucket line.



(Note) The spacing is just a rough guide.

Tips for This Program

☆ Bucket brigades succeed only if many people cooperate with each other.

It is a good idea to let the participants try without being given an explanation first, so that they can experience the importance of appropriate arrangements and cooperation through their experience. Being part of a bucket brigade is hard work, and so watch out for injuries and do not let children or the elderly try too hard.



Rescue Drills

It is needless to say that rescue operations come first when disasters occur. Some rescue methods are explained in this section.

1. Objective

At the site of a major disaster such as an earthquake, swift rescue operations are required. Therefore, the participants will learn how to handle equipment and how to conduct rescue operations in order to be prepared for an emergency.

2. Necessary Number of Staff (In the Case of about 30 Participants)

4-5 staff

3. Necessary Equipment and Materials (In the Case of about 30 Participants)

(Item)	(Quantity)
Saw	5
Crowbar	5
Jack	5
Bolt clipper	5
Hammer	5
Square timber (at least 10 cm thick)	5



4. Outline

With the scenario that a person has been trapped in or caught under a collapsed house, etc., a rescue drill is conducted using rescue equipment such as saws and crowbars.

5. Procedures

(1) Preliminary Explanation

Give the name of each equipment and material and explain its usage and how to handle it.



(2) Preparation

- Prepare the necessary quantities of equipment and materials to be used in the drill.
- Place a dummy, etc. to be rescued under pieces of timber.

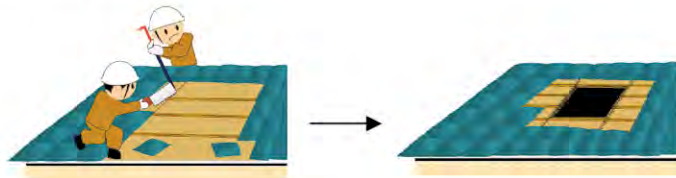
(3) Conducting a Drill

It is difficult to prepare and conduct a full-scale rescue drill. Therefore, the exercise can be limited to lifting and cutting square timber, etc. using equipment and materials, after giving an explanation of rescue operation.

(i) Explaining how to make an opening in a roof.

(How to Make an Opening in the Roof)

- In the case of a wooden-frame house, an opening is made by removing tiles and cutting or breaking roof boards along the rafters.

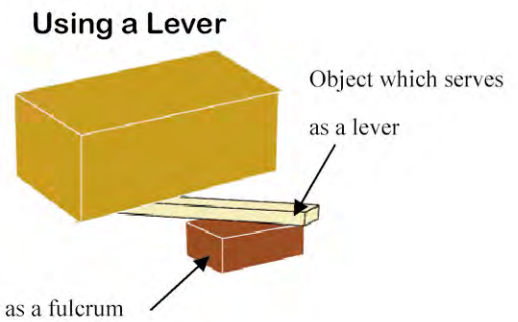
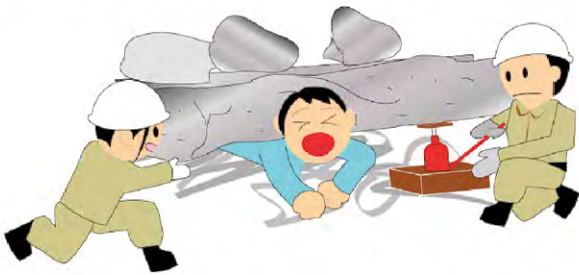


- In the case of a house with a galvanized iron roof, galvanized iron sheets are pulled off by inserting a crowbar into the joints of the galvanized iron sheets. Then, the roof boards are cut or broken along the rafters.
- In the case of a slate-roofed house, the slates are removed by smashing them with a hammer, etc. and then the roof boards are cut or broken along the rafters.

[Points to Note for the Operation]

- ☆ When operating on a roof, allocate safety personnel on the other side of the roof and secure your safety using ropes, etc. Check the firmness of the footing to make sure that the roof will not collapse under your feet. Check your footing to make sure you do not fall.
- ☆ Make a loud warning and check that nobody is below before throwing debris down to the ground.
- ☆ During a drill, watch out for injuries such as cuts to the hands and feet.

(ii) Explaining how to rescue a person.



(Rescue Method)

- Talk to the person trapped in the house in order to reassure him/her and obtain information from him/her about the conditions inside the house.
- Use a jack or a lever to lift debris which is trapping the person.
- Support the lifted debris by inserting square timber, etc. in the space created.
- Remove or break debris, starting with the easiest part to work on.

[Points to Note for the Operation]

- ☆ When removing or breaking debris, work carefully in order to prevent nearby debris from collapsing.
- ☆ When using square timber, etc. as a support or a lever, choose the thickest piece available which has no cracks, etc.

Points to Include in the Talk to the Participants

- ☆ Ask the participants to check if there are goods in the house which can be used for relief operations, etc.
- ☆ Carpentry tools and jacks inside cars may be useful.



Rope Knot Tying Training

Ropes are very useful tools in emergencies. Ropes can be used for various purposes when different knot tying methods are used. This section explains the training methods for rope knot tying.

1. Objective

The participants learn knot tying methods which are useful for rescuing people from collapsed houses, etc. in a disaster. Learning the techniques to utilize ropes can be useful in everyday life as well as in an emergency.

2. Necessary Number of Staff (In the Case of about 30 Participants)

4-5 staff

3. Necessary Equipment and Materials

Ropes (one for each participant)

4. Training Content

There are various rope knot tying methods suitable for different purposes, including tying together ropes of the same thickness and tying together ropes of different thicknesses as well as ropes made of different materials. There are also methods suitable for tying ropes to an object or the human body so that they can be lifted up or down, or ropes can be stretched horizontally or hung down.

(1) Procedures

- (i) Prepare for the training session by distributing ropes to the participants. If the participants are divided into groups, each group should have a maximum of 10 participants with one instructor allocated to each group.
- (ii) Explain about the handling of ropes.
 - Ropes are used to save lives. Do not handle them carelessly.
 - Do not wrap ropes around the neck or swing them around (this warning is particularly for children).
- (iii) Give instruction on each knot tying method and ask the participants to try tying the knot.
- (iv) Let the participants see examples of how the knots are used where possible (such as lowering a bag).

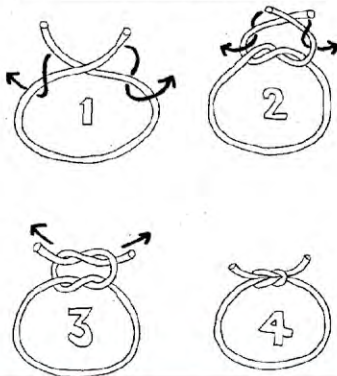
Tips for This Program

- ☆Typical rescue ropes used by professional fire station staff can bear a maximum weight of 3 tons (increasing the number of knots will reduce the strength of the rope significantly).
- ☆Even minor damage to a rope will significantly reduce its strength because a rope starts breaking from the damaged part. Tell the participants to handle the ropes carefully because they are used to save lives.



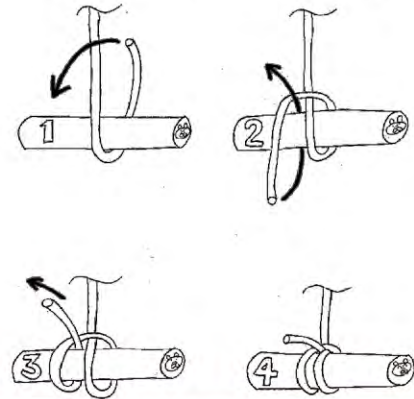
Main Rope Knot Tying Methods

Reef knot



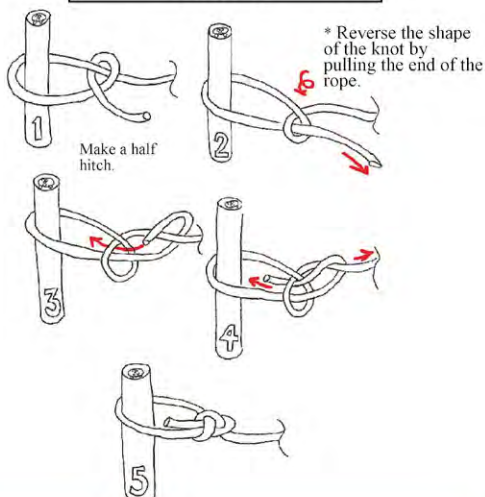
- This method is used to tie ropes of the same thickness together.
- The knot can be easily untied by pulling specific parts of the knot. Therefore, it is used by first aid crews to tie a triangular bandage, etc.
- A bow knot is a modified version of a reef knot.

Clove hitch



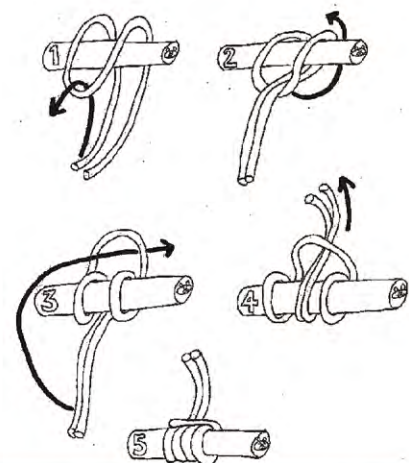
- This is a quick rope tying method for fixing a rope to an object. It is used by fire crews to prevent water-spraying hoses from sliding down on firefighting sites.
- It is used to fix ropes to all sorts of objects.

Bowline



- This method is used to form a loop. It is used by rescuers to make a lifeline for themselves, etc. at a disaster site.
- It can be used to tie a rope to a fixed object such as a tree.

Prusik knot



- This is a quick rope tying method for fixing a rope to an object.
- This method is used in similar situations as a clove and half hitch, but this is a more suitable method for tying a rope to a delicate object because this knot does not become as tight as a clove and half hitch.

Evacuation Drills



This section explains the procedures for evacuation drills, the procedures for drills to set up and operate evacuation sites, drills for emergency accommodation at evacuation sites, etc.

1. Objective

As preparation for emergency situations, conducting evacuation drills to enable the safe evacuation of local residents and drills to set up and operate evacuation sites will ensure the safety of the community as well as providing opportunities for local residents to get to know each other.

Regularly communicating with those who require assistance will help to identify evacuation routes and the types of transportation suitable for people with different health problems.

This information will be useful in an emergency.

By conducting evacuation drills in the local area, routes suitable for different kinds of transportation, the distance, the time required and the required number of helpers can be grasped and problems can be identified.

2. Necessary Number of Staff

All participants other than those who will act as the people who require assistance and evacuees will act as staff.

3. Necessary Equipment and Materials

- For transporting evacuees: stretchers, wheelchairs, hand carts/bicycle carts, blankets, etc.
- First-aid kits, AEDs (automated external defibrillators)
- For operating an evacuation site: a list of evacuees' names, writing instruments, etc.
- For an emergency accommodation drill: bedding (blankets, etc.), cardboard boxes, tools and ingredients for cooking relief meals, emergency rations, water (in PET bottles), etc.
- Road usage permit (When conducting drills on firefighting, evacuation, relief operations, etc. on a road, you may be required to obtain permission to use the road from the chief of the police station, etc.)

4. Drill Content

(1) Evacuation Drills (operated by Evacuation Guidance Team, Helpers for those who Require Assistance, Rescue Team, Relief Team, etc.)

With the scenario that a disaster has occurred, contact the representative in each block

using an emergency phone tree. Confirm the safety of households by block and write down “confirmed” in the list. Conduct rescue operations where needed. Gather at the temporary evacuation point, check the members of the group and then move to the evacuation site.

(2) Setting up of an Evacuation Site (operated by Headquarters Team, Evacuation Site Team, Relief Meal Supply Team, etc.)

Following the evacuation drill, gather at the evacuation site. At the evacuation site, collect information, set up the site and prepare to cook relief meals.

(3) Emergency Accommodation Drill (operated by Headquarters Team, Evacuation Site Team, Relief Meal Supply Team, etc.)

It is desirable that residents participate as families, but it is also good for children to participate without parents as part of disaster education. After the participants experience uncomfortable living conditions with limited food, water, bedding and space, ask them to think about what can be done to cope with the situation.

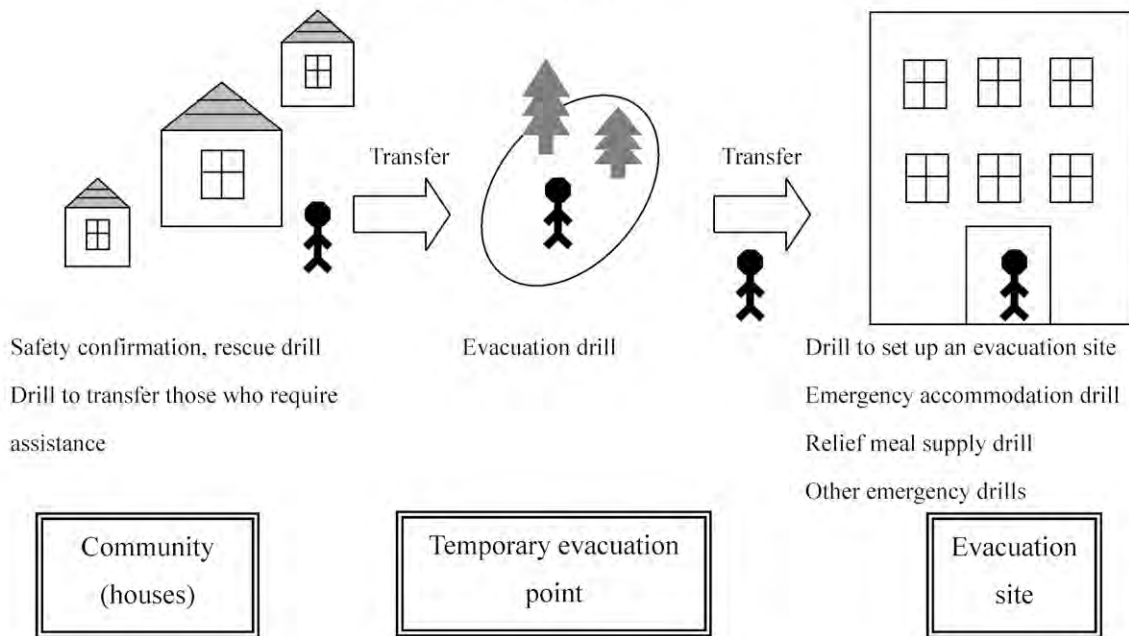
Light exercises and games can be included in the drill so that the participants can enjoy the drill. A talk on disaster risk reduction (such as a talk about an earthquake experience), a fire drill, etc. can also be held using this event.

(4) Measures for those who Require Assistance

People who require assistance are essentially expected to evacuate with the help of their family members. Transport equipment (such as wheelchairs) should also essentially be prepared by each family. When evacuation is not possible by family members alone, community members should assist them.

Understand the conditions of those who require assistance through interactions in everyday life and consider what kinds of transport equipment will be needed in an emergency (trucks and cars can be used depending on the condition of the roads, but vehicles cannot be used if roads are blocked in earthquakes).

Schematic Diagram of the Drills



5. Procedures (From Planning to a Review Meeting)

(1) Preparation Meeting (Creation of a Plan)

What kinds of disaster should be considered?

Which areas need to be evacuated when disasters occur?

Are people who require assistance registered? Where do people who need assistance live?

Which routes should be used for the evacuation? (Which routes are safe to use?)

Who sets up and operates the evacuation site? (Residents or a government organization?)

Where do you ask for support? (See (iii))

What programs should be included in the emergency accommodation drill?

Note: Ask cooperating organizations, etc. to attend the meeting.

(2) Allocation of Roles

Headquarters team, evacuation guidance team, helpers for people who require assistance (such as transportation), relief meal supply team, evacuation site team, rescue team, relief team, etc.

(3) Asking for Support (Cooperation is essential in order to conduct drills as a community.)

Evacuation sites such as schools (Different countries have different designated evacuation sites.)

Residents groups such as residents' associations

Government organizations

The police, fire service, the military (Ask government organizations in charge of disaster management to participate in the drills.)

Youth organizations, women's associations, volunteer fire corps, etc. (Many hands are needed both to conduct drills and in emergency situations.)

Volunteer organizations, NPOs, the Red Cross (the Red Crescent), etc.

(4) Conducting Drills

Conduct drills in accordance with the plan.

In an evacuation drill, some people arrive at the evacuation site early and others arrive late. Therefore, plan for programs which can be held while people wait for everybody to arrive.

In an emergency accommodation drill where children participate, particularly watch out for their safety and make sure that you can get in touch with their parents at any time.

(5) Review Meeting

A review meeting and the creation of review sheets (designed to identify problems) are necessary elements of the drills. Create a review sheet for each person who requires assistance if possible.

It is important to share points to be improved with everyone.

Tips for this Program

- ☆ You can start identifying various problems as you repeat the evacuation drills.
- ☆ Based on the past drill experiences, conduct drills at least once a year.

Points to Include in the Talk to the Participants

- ☆ Anybody can become “those who require assistance” in a disaster. Ask people to be prepared for emergencies by fixing furniture, etc. Let them know that communication with neighbors in daily life is important.
- ☆ A spirit of mutual support is particularly important in difficult situations.

Information Transmission Drills - Preparation for Emergencies

This section explains the procedures for developing emergency phone trees and information transmission drills in order to communicate information about the occurrence of an emergency and evacuation to the community residents.

1. Objective

An information transmission drill aims to promptly gather accurate information such as the situation in the disaster in the area, information about risks, the status of the local residents' evacuation, etc., as well as promptly transmitting such information to residents.

2. Necessary Number of Staff

2-3 staff (if the drill involves only telephone communications)

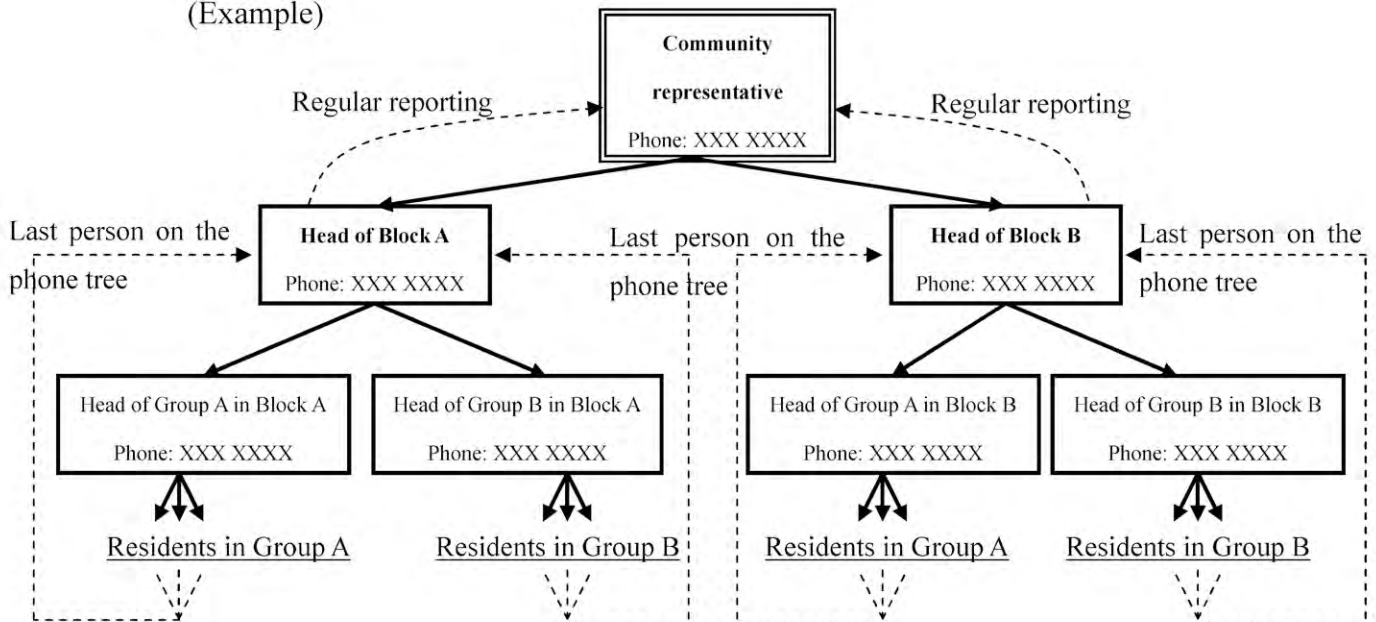
3. Necessary Equipment and Materials

Copies of the emergency phone tree diagram (one copy per participant), telephones (cell phones if available), and the town block map (1 copy)

4. Procedures

(1) Residents will have discussion in order to develop an emergency phone tree.

(Example)



- * Check the location of the next house(s) to be contacted on the residential map, etc. (This is useful for a situation which requires door-to-door visits for information transmission.)
- * The last people on the phone tree will report back the transmitted information and time that they received the information to the head of the block, etc.
- * Discuss the above-mentioned rules and other necessary rules in advance.

(2) Decide the rough content of the information which needs to be collected.

The address of the disaster site, the target, the situation at the site, the number of injured people, the seriousness of the injuries, expected problems in the foreseeable future, the current measures, the person who reported the disaster, the number of people at the evacuation site, the status of the evacuation, etc.

- * Remember to make notes when gathering information.
 - * Plan for information transmission methods which do not rely on telephones (such as radio, walking, using information transmission personnel, etc.) by taking into consideration the areas where telephones cannot be used or situations where calls cannot be connected due to difficulties caused by the disaster.
 - * Try gathering information about people, for example what kinds of people are in trouble in the community, in addition to the status of the disaster.
- However, handling personal information needs great care. Discuss who should be allowed to see the information in advance.

5. Method for an Information Transmission Drill

- (1) Provide the simulation information. (E.g.: An evacuation advisory was issued for Block ○○ and Block XX at XX: XX, since there is a risk of collapse of the banks along the XX river due to heavy rain. Those who live in the area are advised to evacuate to the XX elementary school.)
- (2) Transmit the information using the emergency phone tree in the area. If the person who is next to you on the phone tree did not pick up the phone (because he/she was out, etc.), phone the person next to that person on the phone tree, and tell him/her that you could not get in touch with that person. This information should then be passed on to the last person.

- (3) Check how accurately the simulation information was transmitted. In the case of the example of an emergency phone tree shown above, the last people on the phone tree will report back to the head of the block the information they received, the time when they received the phone call and the information about the people who could not be contacted.
- (4) The heads of the blocks will report to the community representative regularly (e.g. every 10-20 minutes) the number of people who were contacted and the names of the people who could not be contacted.
- (5) Stop the exercise when the time is up (the finish time should be decided in advance). The community representative will aggregate the results, present the results at a later date and discuss with residents if there are any points to be improved.

Tips for This Program

☆If there are local media in your community such as a community radio station or a local television station, they may be used as a means of transmitting disaster information.

Set up an opportunity for residents' groups, government organizations and the media to discuss together how they can cooperate with each other.



Points to Include in the Talk to the Participants

In an emergency situation, people may not understand the situation they are in and, in combination with human psychology which tries not to recognize danger until the danger is right in front of them, they may convince themselves that it is nothing serious. This state of mind is known as the “normalcy bias” in academic terms. It will be important for you as the members of the community based voluntary organizations for disaster risk reduction which ensure community safety to transmit information about dangerous situations correctly to the residents.

The following is a list of points to keep in mind for correct information gathering and transmission. Please share this with the participants of the drills as the information to be used in emergencies.

1. Confirm the facts and report them at the right time.
2. Share information with organizations responsible for disaster risk reduction such as municipalities and fire service organizations.
3. Transmit information using simple words and avoid using difficult words.
4. Try giving information not only orally but also in writing (a note).
5. Ask the recipient of the information to repeat the content in order to transmit the information correctly.
6. Messages in emergencies often include numbers. Be particularly careful when transmitting information about numbers.
7. Reporting that there are no particular problems is also important information.



Community Safety Map



This section explains about walking in the town to investigate the items to be included on a safety map and how to create a map.

1. Objective

The participants walk in the town to investigate where disaster risk reduction facilities and hazardous sites are located in their community and create a safety map which can be used in emergencies.

2. Necessary Number of Participants

10 or more (no limit in the number of participants)

3. Necessary Equipment and Materials

Paper or base map (if available)	1 per group and 1 for a final version
Writing instruments	1 per participant (if not possible, 1 set per group)

[Notes]

Essentially, any number of people can participate. It is recommended that participants are divided into groups if there are many participants.

It is better to have more participants so that they can find hazardous sites, etc. from various angles and points of view.

4. “Town Watching”

(1) Ask the participants to meet in one place. Decide on which routes and which area to investigate. If participants are divided into groups, decide on the roles of members within each group (the person who takes photographs, the person who fills in the information on the map, the person who checks the safety of the participants, etc.).



Distribute pieces of paper (base maps) and writing instruments to the participants so that the information can be written down and compiled later.

(2) Once everybody is ready, start investigating the area. Take your time when walking

around and observe the area from various angles and points of view.

Note: Please see the “Tips for This Program” section below.



- (3) After completing the investigation of the area, summarize the information which has been written down for each type of item. If the investigation was conducted in groups, you can ask each group to present their findings to the other participants.



- (4) Finally, compile the investigated information and complete the map.

Tips for This Program

- ☆ The following are some of the items to check when investigating the town.
 - Disaster risk reduction storehouses, pools, fire hydrants, fire cisterns, etc. (useful things)
 - Households which have radio sets, loudspeakers installed outside, notice boards, etc. (places where people can obtain information)
 - Supermarkets, petrol stations, toilets, etc. (useful places)
 - Hospitals, clinics, pharmacies, places where AEDs are installed, fire stations, police stations, etc.
 - Evacuation sites, schools, parks, open spaces, car parks, etc.
 - Hazardous sites and objects (including accident black spots)
 - Other useful things and places (ask the participants to think about other useful things and places).

Note: It is recommended that necessary information is also collected from the viewpoints of children and the elderly.

5. Creation and Distribution of a Map

- (1) After the participants bring back the information that they collected and the necessary information is put on a large base map, print it out and distribute copies to the people in the area and put them up in the area.
- Sharing the information with the community residents can provide an opportunity for the residents to consider how useful community assets can be utilized and what countermeasures should be taken for hazardous sites, and to take action accordingly.

Residents can, of course, also take action using the information on the map when a major disaster occurs.

(2) The map is not useful if the area covered by the map is too small or too large.

In general, creating one map per area covered by an evacuation site (one school district in the case of Kobe) is recommended because it will be a useful map when evacuating.

(3) It is recommended that residents walk in the town together to update the map once a year.

This will raise the awareness of community residents about disaster risk reduction.

[Notes]

In addition to creating a safety map of a local area, it is also a good idea to create a safety map of a school compound or a large-scale apartment compound.

If community members with a wide variety of ages (from children to the elderly) can participate in the activities, the resulting map will have more various kinds of useful information on it, because the area can be observed from various different viewpoints.

Points to Include in the Talk to the Participants

- ☆ Ask the participants to have a discussion with their family members about hazardous sites in the local area and about disaster risk reduction at home.
- ☆ Each family should discuss among themselves the evacuation route and the evacuation site to be ready for an emergency.



Community Safety Map

(Column for Reference) Kobe City's Community Based Tsunami Hazard Maps

Kobe City, in cooperation with Disaster-Safe Welfare Communities in the City, is working on the preparation of community based tsunami hazard maps that cover its entire city area.

As a measure against flood damage, for instance, preparation of tsunami hazard maps not only showing the locations of evacuation shelters with simple color-coding based on the predicted depth of inundation, but also indicating evacuation behavior appropriate for local characteristics is effective for making local residents aware of flood risks on a daily basis and enabling them to behave correctly in their evacuation in a tsunami disaster.

Integrating (1) basic information about flood risks expected from the local history of disasters and geographical conditions with (2) evacuation information rooted in the local situation of evacuation sites and hazardous locations will lead to the development of highly-practical tsunami hazard maps in consideration of evacuation behavior recommended in a time of disaster.

<Steps in a Series of Disaster Risk Reduction Map Building Workshops>

Workshop	Program	Points to be checked
1st (Preparation of a draft map)	1. Explanation of local disaster risks <ul style="list-style-type: none"> • Past disasters and their scale of damage • Disaster risks expected from geographical features 	Explain historically and archeologically recorded local disasters.
	2. Draft map building workshop <ul style="list-style-type: none"> • Grouping residents by blocks • Adding necessary information to the map <ol style="list-style-type: none"> 1) Checking tsunami damage controlled areas and marking them on the map 2) Checking residents' homes and marking them on the map 3) Marking evacuation sites on the map 4) Reviewing evacuation routes 5) Predicting potential risks during evacuation along the routes 	Residents become aware for the first time when they mark hazardous areas on the map by themselves instead of leaving this work to the City.

	<p>3. Presentation of the contents</p> <ul style="list-style-type: none"> • Making a presentation by community block 	Carefully check for any discrepancy in fact relevance between residents and the City.
2nd (Town walking, revisions to the draft map)	<p>1. Walking around the town with the draft map prepared in the 1st workshop in hand to check for disaster information to be added.</p> <ul style="list-style-type: none"> • Geographical information (steps, slopes, etc.) • Locations to be warned of during evacuation • Blind spots • Risks for inundation • Places likely to cause a landslide 	<ul style="list-style-type: none"> • Check for locations that may hamper evacuation in a disaster (e.g., areas under an overpass, underground passages, bridges, railroad crossings, narrow roads). • Do not miss detailed information known only to local residents (e.g., gutters likely to overflow in a heavy rain).
	<p>2. Adding to the map information obtained from the town walking.</p>	First, through a brainstorming session, write out all information obtained. Then, pick out information to be added to the map.
	<p>3. Presentation of the contents; revisions to the draft map</p>	Carefully check for any discrepancy in fact relevance between residents and the City.
<p>City officials in charge prepare and print a hazard map based on the results of the 1st and 2nd workshops, and bring the map to the 3rd workshop.</p>		
3rd (Checking of the printed final version, corrections)	<p>1. Final check of the contents</p>	It is important to make a map that is eye-friendly and convenient for local residents to obtain information.
	<p>2. Presentation of the contents</p>	<p>Finish the workshop series by calling on residents to:</p> <ol style="list-style-type: none"> 1) Introduce the completed map to their families; and 2) Conduct drills in their home and community using the completed map.

Once a disaster risk reduction map is completed, try to use the actual map in a drill.

As an example, the next page presents a map built through workshops as explained above. Check how the viewpoints of residents are reflected in the map as information.

< People Participating in a Workshop Held in Kobe >



Wakamiya District Disaster-Safe Welfare Community Tsunami Hazard Map

Head North beyond

Keep away from Myohoji River. Avoid using a JR underpass if possible.



Evacuation Routes from JR Line during Evacuation



The first tsunami is expected to arrive about 85 minutes after the earthquake occurs.
 A series of tsunamis will come in succession!

Flood Control Drills - Be Prepared for Floods



There are other kinds of disasters besides earthquakes. This section explains how to act in cases of floods and typhoons, as well as the methods for flood control drills.

1. Creation of a Hazard Map

When creating a “hazard map” which was explained in Program 11, identify water disaster prone sites in the local area (landslide prone sites, flood-prone roads, river flood-prone sites and sites prone to other types of floods in the case of heavy rain).

Pay attention to weather warnings and earthquake information on the radio, etc. and evacuate right away as soon as you find it too dangerous to stay.

Conducting drills regularly based on Program 9 “Evacuation Drills” and Program 10

“Information Transmission Drills” will help you to remain calm when an emergency occurs.

Tips for This Program

- ☆ You can create a “flood hazard map” specifically designed for flood situations, which includes potential places where banks might collapse or rivers might flood, other flood-prone sites, evacuation sites on hills, etc.
- ☆ Pay attention to information on the radio, etc. such as weather warnings and earthquake information. Prepare “emergency kits” which can be taken with you in emergencies.

2. Conducting a Flood Control Drill

(1) Objective of Flood Control Activities

Flood control activities by community residents and volunteer fire corps are undertaken to prevent floods and mitigate damage caused by water leakage and collapsing banks, using different flood control methods. It is important to be well prepared, acquire skills and collect information for flood control activities before an emergency occurs.

(2) Conducting a Flood Control Drill

When conducting a flood control drill, receive guidance from government staff such as fire station staff and members of volunteer fire corps, and encourage as many residents as possible to participate in the drill.

(3) Content of a Drill

- (i) Observation (water levels, precipitation, wind velocities)

- (ii) Reporting (mobilization of volunteer fire corps)
- (iii) Transportation (equipment and materials, personnel)
- (iv) Various flood control methods
- (v) Evacuation (evacuation of residents in danger zones)

Tips for This Program

By conducting other programs such as “Evacuation Drills” and “Information Transmission Drills” in combination with this program, the drill can better simulate a real disaster situation.

(4) Various Flood Control Methods

There are many flood control methods suitable for different types of floods (such as water leakage from the ground, cracks in or collapse of levees, river banks overflowing, etc.), some of which are difficult for nonprofessionals to conduct. In general, sandbags can be made and stacked to prevent water from flooding or levees from collapsing. Receive guidance from specialized agencies such as fire service organizations and the military.



Sandbag Stacking

(Stack sandbags and fix them with iron stakes)



How to Drive in a Stake

(Put a shovel handle through a stake)



Sandbag Stacking with a Tarpaulin Wall

(Vertically spread a tarpaulin on the river side of the sandbags stacked in the above-mentioned way)



Sandbag Stacking in a “Stepped Pot” Shape

(Surround a water leakage point on the ground with sandbags)

[Simple Flood Control Methods]

These methods can be used at the initial stage of flooding when water levels are still low, by utilizing materials available at home.

(1) Fill bags with water, place the bags in cardboard boxes and wrap them with tarpaulins.

(2) Wrap plastic containers with tarpaulins.

(3) A simple flood control method using planters



Bag of water

(5) Preparation for the Drill

There are many types of equipment and materials used in flood control. Check if you have all necessary equipment and materials including large wooden mallets, saws, shovels, axes, tarpaulins, wooden stakes, ropes, etc. Learn how to use them in normal times.

(6) How to Make a Sandbag

A. Necessary Equipment and Materials



Empty sandbags



Shovels



Iron stakes, wooden stakes



Hammers,

large wooden mallets

B. How to Make a Sandbag

- Put 6-7 shovels of earth (30-40 kg) into an empty sandbag.



Put shovels of earth in a bag and pull the string to tie the top.

Hook the string on a finger to make a loop. Put the string around the top of the bag 2-3 times. Put the string through the loop and pull it to fasten.

C. How to Lift a Sandbag



Place the sandbag on the lap.



Put the sandbag on your shoulder...



...Then, stand up.

- You can also use wheelbarrows to carry sandbags.

Note: Be careful not to injure your back, etc. when lifting heavy objects.

Points to Include in the Talk to the Participants

Identify flood prone areas, etc. to be ready for a disaster.

Discuss among family members where the evacuation site is, which route should be taken to evacuate, etc.

If you are near the sea when an earthquake strikes, evacuate to higher ground right away.



Activities

By conducting disaster risk reduction activities in combination with other community activities, it is expected that many people will participate in the activities and this can raise awareness of more people in the community about disaster risk reduction.

1. Objective

Through integrating the elements of disaster risk reduction activities in other community activities, various kinds of people can gain the opportunity to learn about disaster risk reduction.

When it is difficult to conduct disaster risk reduction activities independently, using other community activities can reduce the time required for planning and financial costs.

2. Necessary Number of Participants

The number of participants can be adjusted in accordance with the activity content.

3. Necessary Equipment and Materials

Necessary equipment and materials should be decided in accordance with the activity content.

4. Examples of Cooperation

(1) Integration into Welfare Activities

- Integrate disaster risk reduction activities into gatherings for the elderly of a community, for example, providing information about disaster risk reduction (lectures on disaster risk reduction such as a talk about an earthquake which happened in the past, information with regard to residential fire alarm systems, anchoring furniture, etc.).
- By taking advantage of volunteer activities where community residents gather (such as weeding and cleaning ditches), it will be possible to conduct an emergency drill or provide information about disaster risk reduction. This can provide a chance for those who cannot participate in disaster risk reduction activities to learn about disaster risk reduction.

Welfare activities

+

Disaster risk reduction activities

(2) Integration into Community Events

- Provide information or conduct an emergency drill in community events such as a summer festival, a music festival or a Christmas party.
- Create a booth for a game to hit targets using water fire extinguishers at a community festival.
- Raise awareness of people by performing a fire drill or a bucket brigade during the half time at a community soccer event, etc.

Community events

+

Disaster risk reduction activities

5. Procedures

- (1) Discuss community activities and events into which disaster risk reduction activities can be integrated.
- (2) Look up the organizers of the activities and the events, and consult with them to coordinate the content.
- (3) Ask for advice from the fire station about training programs suitable for the situation.
- (4) Conduct the disaster risk reduction activities.

* Examples in Japan(KOBE)

- (1) Conduct a game which integrates an element of disaster risk reduction as part of the sports day events at a school.



- (2) Conduct disaster risk reduction programs using a community summer festival.



Tips for The Program

- ☆ There are events for which government organizations cannot provide support as part of their duties (such as dispatching a fire engine or government staff) depending on the content and purposes of the events. If assistance from government organizations is needed, consult with them about the content of the event, etc. at the planning stage.
- ☆ Adding disaster risk reduction activities to community events which attract many people can provide opportunities for the community to improve their disaster risk reduction abilities. Discuss what kinds of activities can be conducted in the community. Also, consult with government organizations to find out what kinds of support are available.

Points to Include in the Talk to the Participants

- ☆ Many community activities and events are season-specific. There is perhaps more chance that participants will take home the information they have learned, if you can provide information about disasters which tend to occur in the relevant season.

[E.g.]

Spring: Talks about forest fires (in relation to barbecues)

Summer-Autumn: Windstorm and flood damage (in relation to the rainy season and typhoons), water-related accidents (in relation to summer holidays)

Winter: Talks about fires (in relation to the dry air)

School Disaster Education

Programs

(description / reference)

* This is an example of a plan for an elementary school in Japan.
 * Please make a plan in accordance with each country's conditions.

Example of School Disaster Management Plan

XX Elementary School

1. Objective

This plan aims to evacuate pupils safely and minimize casualties by stipulating measures to be taken when fires and earthquakes occur.

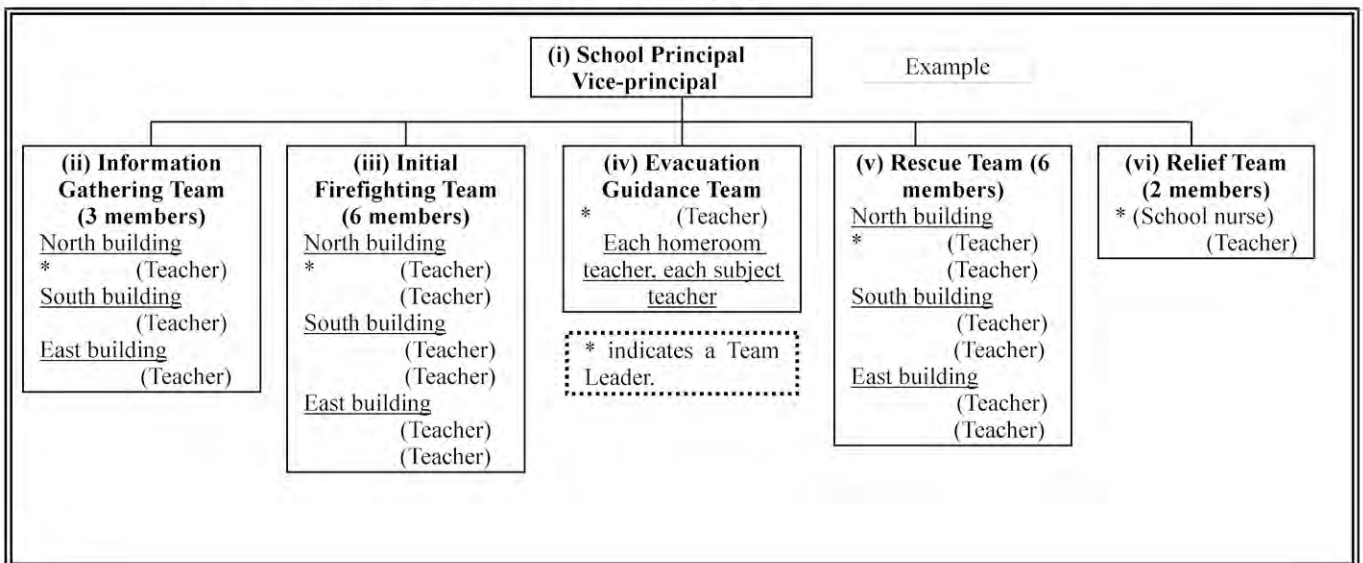
2. Measures to be Taken in the Case of Fire

(1) Finders' Action

- (i) When you find a fire, **do not hesitate and report the occurrence of a fire to people around you.**
 Use fire alarms (push-button fire alarms), etc. to report the fire to people.
 Use appropriate methods to notify pupils (particularly pupils who need special attention) **taking into consideration the possibility of panic.**
- (ii) **Inform the Principal (the Vice-Principal if the Principal is absent).** (If necessary, the finder should inform the fire service.)
- (iii) Give instructions and guidance for the evacuation by prioritizing the safety of the pupils.
- (iv) If initial firefighting is possible, **conduct initial firefighting** using the closest firefighting equipment such as fire extinguishers, indoor fire hydrants, etc.
- (v) **The School Principal (the Vice-Principal if the Principal is absent) instructs the formation of a self-protection firefighting organization** and allocates duties in the following manner.

(2) Self-protection Firefighting Organization to be Formed in the Case of Fire

When fires occur, the following duties are allocated to the staff at the initiative of the School Principal and each staff member will take action accordingly.



(i) School Principal, Vice-Principal

Reporting to the Fire Service and Contacting Relevant Organizations

- **Inform the fire service** of the information obtained from the Information Gathering Team accurately.
- Promptly communicate changes in the situation.
- Conduct necessary reporting to the Board of Education and relevant outside organizations.

[Reporting Content]

1. I want to report a fire.
2. This is _____ Elementary School.
3. The address is _____ City, _____ :
-- Report on the following items --
4. The place where the guiding person is waiting
5. The place where the fire started
6. The scale of the fire
7. Whether there are casualties or not, if there are, the status of the casualties
8. The evacuation status
9. The status of the initial firefighting

Relevant Contacts

NO	Organization	Telephone number
1	Board of Education	
2		
3		
4		
5		
6		
7		
8		
9		
10		

General Command

- **Notify the occurrence of a fire** using the school's public address system, etc.
- In order not to cause a panic, **carefully consider in advance how to notify pupils that a fire has started**, and **post copies of a sample announcement** near to the telephones and the public address system.
- **Give necessary instructions** using the school's public address system, etc.
- In order to **prevent a panic**, if the automatic fire alarm system goes off, make a whole-school announcement/emergency announcement (after carefully considering the announcement content) in accordance with the situation, for example, letting the pupils know that the alarm system went off and school staff are currently checking whether there is a fire or not.
- Once the pupils and school staff reach a safe place such as the playground, have **the Information Gathering Team and the Evacuation Guidance Team** count the pupils and school staff. Also, instruct the teachers to **take a roll call (making sure that no mistakes are made)** in order to **check if there is anybody who failed to escape**. (Homeroom teachers → Teacher in charge of the classes of each school grade → Vice-principal → Principal)
- **Inform the fire crews** about the collected information accurately when they arrive at the school.

Location of the automatic fire alarm system control panel	Building	Floor	Location

(ii) Information Gathering Team

Identifying and Reporting Information about the Fire

- When you are informed of the occurrence of a fire, find out the details of the fire (the location, the scale, whether there are casualties or not, etc.) and report to the Principal (the Vice-principal if the Principal is absent).
- Collect information as the status of the fire changes, and report the information to the Principal (the Vice-principal if the Principal is absent).
- When collecting information, **ensure your own safety**. Collect information from a safe position and **evacuate immediately if it becomes dangerous to stay**.

Checking the Evacuation Status

- When the evacuation starts, gather information about the status of the evacuation (the number of evacuees and information about casualties) and report to the Principal (the Vice-principal if the Principal is absent).
- Once the evacuation is completed, **confirm the number of people (making sure that no mistakes are made)**. Then, inform the Principal (the Vice-principal if the Principal is absent) of the completion of the evacuation and other necessary information such as the condition of any casualties.

(iii) Initial Firefighting Team

- Do not panic and **take action calmly**.
- **Conduct initial firefighting** using the nearest firefighting equipment such as fire extinguishers, water

buckets, indoor fire hydrants, etc.

- Always conduct initial firefighting in pairs. Always consider escape routes while conducting the activities and **evacuate immediately if it becomes too dangerous to stay rather than continuing to try in dangerous situations.**
- Regularly conduct drills to learn how to use firefighting equipment so that effective initial firefighting can be conducted in the case of a fire.

[Locations of Disaster Risk Reduction Equipment]

Equipment name	Building	Floor	Location	Quantity	Managed by
Fire extinguisher					

Equipment name	Building	Floor	Location	Quantity	Managed by
Indoor fire hydrant					

Equipment name	Building	Floor	Location	Quantity	Managed by
Others (the automatic fire alarm system, fire door, etc.)					

(iv) Evacuation Guidance Team

- When you are informed of the occurrence of a fire, determine the best evacuation routes immediately and evacuate pupils to a safe place such as the playground, using whistles and by giving instructions in a loud voice.
- In principle, the order of the evacuation directions should be in the following order: **i) to horizontal directions; ii) to downward directions; and iii) to upward directions.**
- Evacuation of pupils in the lower school grades should be prioritized in principle.
- **In order to avoid panic, carefully consider how to notify** pupils that a fire has started.
- Explain to pupils how to evacuate (postures to take when evacuating, usage of handkerchiefs, the evacuation route, etc.) before starting the evacuation.
- In principle, one school staff member should attend each **pupil who needs special attention** when evacuating.

(v) Rescue Team

- Obtain information about those who failed to escape, in cooperation with the **Information Gathering Team**.
- If there are people who failed to escape, identify the number of people, etc. as accurately as possible, and then conduct rescue operations in pairs.
- When conducting rescue operations, give top priority to your own safety. Limit your activities to supplementary work for the **Evacuation Guidance Team** and **do not try conducting rescue operations to an extent that your own safety is in jeopardy.**
- If everybody escaped successfully, **conduct an evacuation of important goods.**

(vi) Relief Team

- Obtain information about casualties in cooperation with **the Information Gathering Team** and the **Rescue Team**.
- If there are casualties, **transfer the injured to a safe place and give first aid.**
- When first aid crews arrive, explain the condition of the casualties and hand over your work to them.

(vii) Others

- **Each team should flexibly take action in accordance with the situation**, although they should perform their allocated duties as shown above in principle.

3. Measures to be Taken in the Case of an Earthquake

When an earthquake occurs, **take action flexibly based on the content explained below.**

Measures to be taken are stipulated below for the following four types of scenarios: an earthquake occurs **(i) during class hours; (ii) before the starting time, during a break or after school; (iii) during going to and from school; and (iv) during a field trip.**

(i) During Class Hours (inside the School: The school staff and pupils are in the same place.)

Situation	School staff's actions	Pupils' actions
Occurrence of an earthquake	<p>Instructions to the whole school (the Principal and the Vice-principal)</p> <p>- Wait at the site until the shaking subsides.</p> <p>Ensuring the safety of pupils and giving instructions (homeroom teachers)</p> <p>- Instructions for ensuring safety</p> <ul style="list-style-type: none"> • Instruct pupils to protect their heads. • Instruct pupils to move away from windows and walls. <p>- Check the safety of pupils (count the number) and the safety of the surrounding area.</p> <p>- Calm pupils down.</p>	<p>[For all locations]</p> <ul style="list-style-type: none"> • Stop talking and listen to the teacher. • Move away from places which may collapse and places on which objects may fall. Cover your head with a textbook, a bag, etc. and wait for the shaking to subside. <p>[In classrooms]</p> <ul style="list-style-type: none"> • Crawl under the desk and hold the legs of the desk. <p>[Corridors and stairways]</p> <ul style="list-style-type: none"> • Move towards the center and crouch down. <p>[Playground]</p> <ul style="list-style-type: none"> • Move away from buildings and playground equipment, gather in the center and crouch down. <p>[Gymnasium]</p> <ul style="list-style-type: none"> • In order to avoid the risk of injuries caused by falling objects such as lights, immediately move away from the walls, gather in the center and crouch down. <p>[Pool]</p> <ul style="list-style-type: none"> • Move to the edges of the pool and hold onto the edge. (Teachers should not rush pupils to get out of the pool.) • When the shaking subsides, get out of the pool. • Wear sandals, protect the body with a bath towel and prepare to evacuate. <p>[Special-purpose classrooms]</p> <ul style="list-style-type: none"> • If fire is being used in the home economics classroom, the science classroom, etc. when an earthquake occurs, avoid risks and turn off the fire if possible.

Situation	School staff's actions	Pupils' actions
After the shaking subsides	<p data-bbox="336 255 756 293">Instructions to the whole school (the Principal and the Vice-principal)</p> <ul data-bbox="336 353 778 483" style="list-style-type: none"> - Decide on evacuating to a place outside of the school buildings and give instructions for the evacuation. <p data-bbox="336 499 794 537">Informing the fire service and the police (the Principal and the Vice-principal)</p> <p data-bbox="336 598 533 636">Emergency calls</p> <div data-bbox="336 636 794 824" style="border: 1px dashed black; padding: 5px;"> <p data-bbox="363 642 778 719">Contact numbers for the relevant police station and fire station</p> <p data-bbox="384 741 507 779">Fire station:</p> <p data-bbox="384 786 528 824">Police station:</p> </div> <p data-bbox="336 831 762 869">Ensuring the safety of the evacuation route (homeroom teachers)</p> <ul data-bbox="336 929 794 1155" style="list-style-type: none"> - Check the safety of the pupils, decide on the evacuation route. - Guide the pupils during the evacuation (bring the list of pupils' names) <p data-bbox="336 1171 746 1209">Ensuring safety after the evacuation (homeroom teachers)</p> <ul data-bbox="336 1270 794 1585" style="list-style-type: none"> - Check the number of pupils and the safety of pupils, then make a report. - Search for missing pupils and rescue them. - Identify injured pupils and give them first aid. - Contact parents. 	<ul data-bbox="804 703 1433 1167" style="list-style-type: none"> • Start evacuating (to the playground) by following the instructions. • Protect the head (using a textbook, a bag, etc.) when evacuating. • Evacuate while following the “Four Principles” (do not push, do not run, do not talk and do not return). • Watch out for hazardous places when going through them or avoid such places. • Line up at the evacuation site (the playground). • Sit quietly and wait for instructions.

(ii) Before the Starting Time, during a Break or after School (inside the School: The school staff and pupils are in different places.)

Situation	School staff's actions	Pupils' actions
Occurrence of an earthquake	<p><u>Instructions to the whole school (the Principal and the Vice-principal)</u></p> <ul style="list-style-type: none"> - Wait at the site until the shaking subsides. <p><u>Ensuring the safety of pupils and giving instructions (homeroom teachers)</u></p> <ul style="list-style-type: none"> - Instructions for ensuring safety <ul style="list-style-type: none"> • Instruct pupils to protect their heads. • Instruct pupils to move away from windows and walls. - Check the safety of pupils (count the number) and the safety of the surrounding area. - Calm pupils down. 	<p>[Indoors]</p> <ul style="list-style-type: none"> • While the ground is shaking, cover the head (using a textbook, a bag, etc.), stay still and wait for the shaking to subside. <p>Note: See the "Pupils' actions" in the "During Class Hours" section.</p>

Situation	School staff's actions	Pupils' actions
After the shaking subsides	<p><u>Instructions to the whole school (the Principal and the Vice-principal)</u></p> <ul style="list-style-type: none"> - Decide on evacuating to a place outside of the school buildings and give instructions for the evacuation. <p><u>Informing the fire service and the police (the Principal and the Vice-principal)</u></p> <p>Emergency calls</p> <p>Contact numbers for the relevant police station and fire station</p> <p style="padding-left: 40px;">Fire station:</p> <p style="padding-left: 40px;">Police station:</p> <p style="border: 1px solid black; padding: 5px;">Teachers spread out and ensure the safety of the pupils, instruct and guide pupils to evacuate to the playground.</p> <p><u>Ensuring the safety of the evacuation route (homeroom teachers)</u></p> <ul style="list-style-type: none"> - Check the safety of the pupils, decide on the evacuation route. - Guide the pupils during the evacuation (bring the list of pupils' names) <p><u>Ensuring safety after the evacuation (homeroom teachers)</u></p> <ul style="list-style-type: none"> - Check the number of pupils and the safety of pupils, then make a report. - Search for missing pupils and rescue them. - Identify injured pupils and give them first aid. - Contact parents. 	<p>[For all locations]</p> <ul style="list-style-type: none"> • Watch out for falling objects and collapsing objects. • Check the safety of the surrounding area. • Move away from the walls of buildings and glass windows. • Listen to announcements over the school's public address system and keep quiet. • Start evacuating by following the nearest teacher's instructions. • Protect your head (using a textbook, a bag, etc.) when evacuating. • Evacuate while following the "Four Principles" (do not push, do not run, do not talk and do not return). • Line up at the evacuation site (the playground). • Sit quietly and wait for instructions.

(iii) During Going to and from School (outside the School)

Situation	School staff's actions	Pupils' actions
Occurrence of an earthquake	<p>Instructions to pupils in the school (the Principal, the Vice-principal or a deputy)</p> <ul style="list-style-type: none"> - Wait until the shaking subsides. 	<ul style="list-style-type: none"> • While the ground is shaking, cover the head (using a textbook, a bag, etc.), stay still and wait for the shaking to subside.

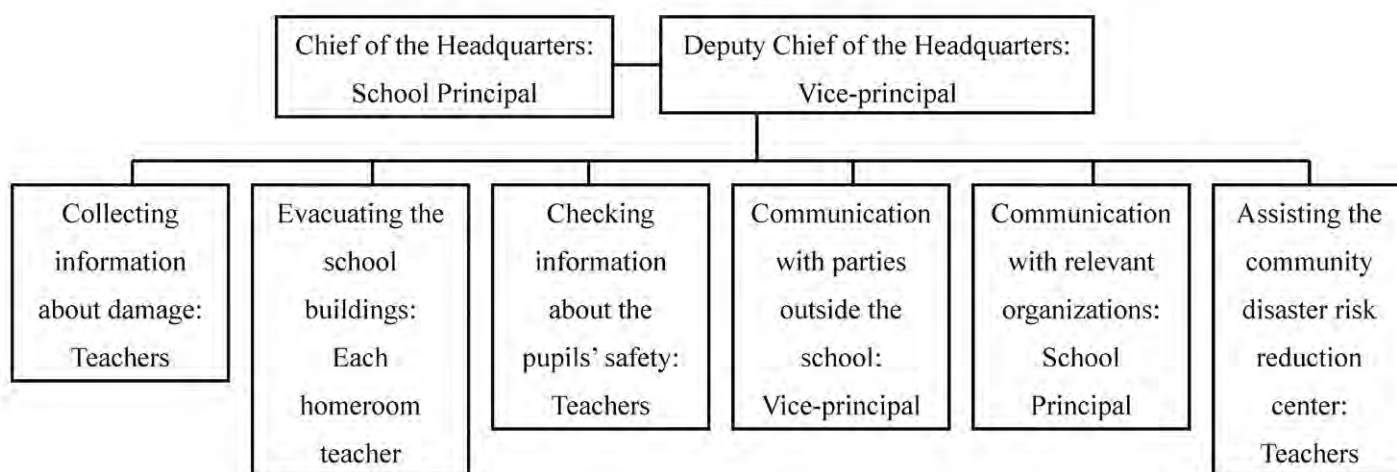
Situation	School staff's actions	Pupils' actions
After the shaking subsides	<p>All school staff</p> <ul style="list-style-type: none"> - Check and ensure the safety of the pupils in the school. - Check the safety of pupils on roads used by pupils to commute to the school. - Check the safety of pupils at the evacuation sites. • Pupils whose safety was confirmed at the above locations should be handed over to their parents. • The pupils whose parents could not be contacted should be looked after at the school. • Pupils should be looked after in community facilities if possible. Make sure to keep the addresses and contact numbers of the sites to which the pupils evacuated. - Check the safety of the pupils at their homes. - Aggregate and check the information about the pupils' safety. - Search for pupils whose safety could not be confirmed and inform the fire service and the police. - Take measures to ease the anxiety of pupils who are being looked after at the school. - Contact parents. 	<p>[Pupils in the school]</p> <ul style="list-style-type: none"> • Watch out for falling objects and collapsing objects. • Check the safety of the surrounding area. • Move away from the walls of buildings and glass windows. • Listen to announcements over the school's public address system and keep quiet. • Start evacuating by following the nearest teacher's instructions. • Protect your head (using a textbook, a bag, etc.) when evacuating. • Evacuate while following the "Four Principles" (do not push, do not run, do not talk and do not return). • Line up at the evacuation site (the playground). • Sit quietly and wait for instructions. <p>[Pupils on roads used to commute to the school]</p> <ul style="list-style-type: none"> • After the shaking subsides, leave the evacuation site and return home. • If evacuation is not possible, wait on the spot until parents, school staff or community members come to the site. • In coastal areas, evacuate to higher ground as a precaution against tsunamis. • In areas which have a possibility of landslides and falling rocks, move to a safe place.

(iv) During a Field Trip (outside the School)

School staff's actions	Pupils' actions
<p>Accompanying school staff</p> <ul style="list-style-type: none"> - Wait at the site until the shaking subsides. - If you are on a bus or a train, follow the instructions of the crew. - Based on the evacuation routes in the facilities and the evacuation sites identified in a preliminary survey, guide pupils to evacuate. - Watch out for secondary disasters such as tsunamis, falling rocks and landslides. - Count the number of pupils and check if there are casualties. - Give emergency treatment. - Collect information such as the scale of the disaster and the damage and casualty situation. - Contact the school, report the situation and receive instructions. - Devise different communication methods (such as the media) if calls cannot be connected. - Give care to pupils to ease their anxiety. 	<p>[Outdoors]</p> <ul style="list-style-type: none"> • Protect yourself by moving away from places which may collapse or places which may have falling objects, etc. • Squat down and protect the head. <p>[Indoors]</p> <ul style="list-style-type: none"> • Protect yourself by moving away from places which may collapse or places which may have falling objects, etc. • Protect your head. • Stay calm and evacuate the building. <p>[On a bus or a train]</p> <ul style="list-style-type: none"> • Follow the crew's instructions and keep quiet.
<p>Staff in the school</p> <ul style="list-style-type: none"> - Report the situation to the Board of Education. - Report the situation to parents. - Receive instructions from the Board of Education and coordinate as necessary, such as requesting local public organizations for help. 	

(v) Establishment of a School Earthquake Headquarters

When an earthquake disaster has occurred or there is a possibility of an earthquake disaster, a disaster headquarters is established in order to ensure the safety of pupils, facilitate prompt evacuation and minimize casualties. The following shows the outline of the organization.



(vi) Roles of the School Disaster Headquarters

Collecting Information about Damage

- Check the status of the damage inside the school.
Check to see if there are any fires and identify the damage to school buildings, gas, electricity, water, the telephone, etc.
- Take photographs.
Take photographs of the damage.
- Take measures against hazardous sites such as prohibiting entry.
- Grasp the situation in the school district and the overall disaster situation.
Collect information about the overall disaster damage situation and the damage in the school district.

Managing pupils who evacuated from the school buildings

- Take measures to ease the anxiety of pupils who evacuated to the playground, etc. and check their safety.
Make the pupils feel safe and keep an eye on them so that they do not go off somewhere by themselves, by having them line up and making it possible to see all the pupils easily even with a small number of teachers.
- The Chief of the Headquarters decides on the action to be taken after evacuating the school buildings.**

Checking information about the safety of pupils

- Check information about the safety of pupils.

Each homeroom teacher, etc. aggregates information about the safety of the pupils using an appropriate method for the situation and **identifies pupils whose safety could not be confirmed.**

- Contact relevant organizations.

If there are pupils whose safety could not be confirmed, contact the parents, the fire service, the police, etc.

Communication with parties outside the school

Response to inquiries from the media, parents and relatives (**all these inquiries should be handled by specified personnel**).

Communication with relevant organizations

Make the necessary reports to the Board of Education and neighboring schools.

Assisting with the setting up and the operation of the evacuation site

If the school is used as the evacuation site for the community, assist with the operation of the evacuation site in cooperation with other government organizations, etc.

Example of School Annual Plan for DPE (Disaster Education) (XX Elementary School)

School's education goal	Foster children who try to improve themselves	The type of child that the education aims at	A physically and mentally strong and spiritually rich child who is willing to learn
Goals of DPE	Learn what you can do to protect your life and your friends' lives. Make your body and mind strong. Learn to feel thankful and to feel compassion.		

Period	DP-related activities	1st grade	2nd grade	3rd grade	4th grade	5th grade	6th grade
1st trimester	Apr. -Creation of an Annual Plan for DPE	"Emergency! What do you do?" (1st-3rd grade) [Learn what to do in emergencies]				"What you should do when emergencies occur" (4th-6th grade) [Learn what to do in emergencies]	
	May -Evacuation drill (fire) -Parental visitation day (earthquake scenario)	Learning about earthquakes Vol.1 [What happens when earthquakes strike] (1st-3rd grade) [Getting ready for an emergency drill]				(4th-6th grade) [Getting ready for an emergency drill]	
	Jun. -Evacuation drill with a fire scenario -Drill to handover pupils -Water safety	Learning about earthquakes Vol.2 [Importance of lives, animal welfare] [International understanding]				[Volunteer activities]	
	Jul. -Emergency life-saving training -DP-related inspections	<i>Note: The disaster education programs included in the plan are conducted using supplementary readers, etc. Please utilize supplementary readers, etc. created in your country, if any, when conducting disaster education in your country.</i>					
	Sept -Disaster risk reduction lecture						First aid which we can provide
	Oct. -Crime prevention class	(1st-3rd grade: health education, class activities)					(4th-6th grade): health education, physical education
	Nov. -Evacuation drill (against a suspicious individual)	Learning about earthquakes Vol.3 [Community exchange] [Information transmission abilities]				[Community exchange] [International understanding]	
Dec. -Community safety check patrol	- Let's make a disaster risk reduction map and an emergency rucksack					- Rehabilitation plan, -What if there is no electricity or water?	
Jan. -XX District Disaster Management Day -Evacuation drill (earthquake)	All the students in the school practice and sing together the song "Shiawase Hakoberu Yumi (wishing to bring happiness)" (a song created after the earthquake). (Note: January is the month when the Great Hanshin-Awaji Earthquake occurred.)						
Feb. -Inspection of DP-equipment the school							
Mar -emergency drill with the community	Learning about earthquakes Vol.4 [Natural disaster] [Obtaining knowledge, understanding]					[Disaster risk reduction] [Obtaining knowledge, understanding]	

Note: This is a model example of a disaster education plan for an elementary school in Kobe City, Japan.

When making plans for schools in your country, please make the plans suitable for your country's conditions.

Drawing your Image of an Earthquake

Teach lessons learned from
the earthquake

3

Program Outline

Children draw a picture of what would happen to the town if an earthquake occurs. First, let them draw a picture with no information given to them. Then, let them learn about earthquakes through photographs, videos, etc. They will then compare their image and the reality and deepen their understanding about earthquakes.

Objective

Children will have more realistic and detailed image about earthquakes.

Grade	Lesson Type	Venue	Length	Participant Size
1st, 2nd	Lecture	Indoors	1 lesson period	1 class

Content

[Introduction]

(1) If your country experienced an earthquake disaster, explain the situation at the time.

Note: If your country does not experience earthquakes often, you can conduct this program for other types of disasters such as volcano disasters and cyclone disasters.



[Drawing pictures]

(2) Let children freely draw their image of an earthquake in a picture.



[Presentation of pictures]

(3) Children show their pictures to each other. Alternatively, ask some of the children to present their picture and explain what kind of image they expressed in the picture.



[Comparison with photographs and videos of earthquakes]

(4) Show photographs and videos of actual earthquakes. Ask them to present their findings including what they felt when they compared their picture with the photographs and videos.



[Others]





(5) This program is for children in the lower grades, but you can also conduct the program for each grade and compare the images that children in different grades have.








Important Points when Giving Guidance

Many children might have difficulties drawing because they do not know about earthquakes at first, but it is important to encourage them to draw their image with a minimum amount of information.






Cooperation with other Organizations		
This is an easy program to conduct by school staff alone.		
How the Local Community (Disaster Risk Reduction Organization) can be Involved		
(1) If community members have experienced earthquakes, they can talk about their experiences when showing relevant photographs and videos.		
(2) Ask them to prepare photographs and videos of the earthquake disaster.		
Assistance from Fire Station Staff and Volunteer Fire Corps Members		
They can talk about their earthquake experiences and their job in earthquake situations, when showing relevant photographs and videos.		
Necessary Equipment and Materials (Standard Items and Quantities)		
Name of the equipment/material	Quantity	Can be Prepared by
Drawing paper, large drawing sheet	The No. of participants x 2	School
Colored pencils, crayons, paints, etc.	Necessary quantity	School
Stock footage and photographs of earthquakes, etc.	1	School
Screen (if available)	1	School
Projector (if available)	1	School
DVD player (if available)	1	School
Remarks	Please prepare a screen and a projector if needed.	
"Souvenirs" to Take Home		
Let children take home the pictures that they drew and use the pictures to talk about earthquakes among the family members.		
Additional Information about this Program		
Images of earthquakes can include various scenes such as damage to buildings, victims of an earthquake and tsunamis.		
By letting children draw their image with minimum information given to them, teachers can know what earthquakes mean to children through this program.		
Lessons Learned from Past Earthquakes and other Disasters which are Related to this Program		
At the evacuation sites after the earthquake, there were no activities that children could enjoy and children became more miserable with each day. In this kind of situation, a program to draw pictures can be very effective. (However, this program may not be suitable for children in areas which have been severely stricken by earthquakes.)		
Variations		
Besides images of earthquakes, it is also a good idea to let children draw pictures with the themes of "safe houses" and "emergency kits to take with you when evacuating."		

Emergency Reporting Drill “Call XXX in the Case of Injuries and Fires!” (Replace XXX with the emergency telephone number of your country.)				Children obtain knowledge	4
Program Outline					
Firstly, children learn the importance of reporting and the reporting method. Then, they make emergency calls by looking at pictures of the situations which require emergency reporting.					
Objective					
Children will obtain the knowledge needed to calmly make calls in emergencies and learn about appropriate emergency reporting.					
Grade	Lesson Type	Venue	Length	Participant Size	
3rd-6th	Lecture	Indoors	20 min.	1 class	
Content					
[Preliminary explanation] (1) Explain the kinds of situations where emergency reporting is necessary, where emergency calls get connected to and through what procedures fire engines, etc. are mobilized.					
[Explanation about reporting content] (2) Teach the correct method of reporting before letting the children make emergency calls. <ul style="list-style-type: none"> • Is it a fire or an emergency medical situation? (Note: Some countries have different telephone numbers for fires and emergency medical situations.) • Where is the site (address)? • Is there a landmark near the site (a large building, etc. such as a hospital, a train station or a supermarket)? • Describe the situation (when, where, who did what using what, that led to what). 					
[Reporting drill] (3) Conduct a reporting drill for children. <ul style="list-style-type: none"> • Children are shown pictures which illustrate several different situations and they learn how to make an emergency call for each situation. (See the Reference for relevant pictures.) 					
[Summary and review] (4) Summarize the important points to remember and review good points and bad points of their emergency reporting drill results. (5) Give supplementary explanations (see the Description).					
Important Points when Giving Guidance					
(1) In this program, children will make emergency calls as part of the drill. However, you should also emphasize to them that they should report emergencies to adults around them as soon as possible in reality.					
(2) Produce sample reporting formats and put them near the telephones so that people can stay calm when making emergency calls (see the Description).					





Cooperation with other Organizations		
You can conduct the program more effectively if you can obtain assistance from fire station staff for the preparation of equipment and materials and guidance on how to conduct emergency reporting.		
How the Local Community (Disaster Risk Reduction Organization) can be Involved		
They can act as control room personnel who respond to the emergency calls. They can also demonstrate model reporting.		
Assistance from Fire Station Staff and Volunteer Fire Corps Members		
You can make the program more effective if you ask fire station staff or members of volunteer fire corps to act as the control room personnel (those who receive calls).		
Necessary Equipment and Materials (Standard Items and Quantities)		
Name of the equipment/material	Quantity	Can be Prepared by
Telephone (a broken one or a toy can be used)	1	Fire service, school
Pictures which illustrate different situations (see the Reference)	4-5 pictures	Fire service, school
Remarks		
"Souvenirs" to Take Home		
Ask children to talk to their parents about what they learned.		
How Parents can Participate		
(1) If possible, ask the parents to demonstrate model reporting at the beginning.		
(2) By asking parents to act as the control room personnel, the parents can participate in the drill with the children.		
Additional Information about this Program		
When making an emergency call in real situations, there are cases where people cannot report properly because they are panicking. Try to stay calm when you make an emergency call.		
Variations		
Visiting a control room before or after the emergency reporting drill will help the children really understand what they have learned.		
Comments of the Children who Participated in the Program (in Japan)		
<ul style="list-style-type: none"> • I stumbled because this was the first time I made an emergency call. I think that I will be very upset in a real situation. • I am glad that I was able to report well. • I wonder what happens if there is a crank call. • I understood how to make an emergency call. • I think that I could use today's experience when something happens. 		

School Exploration to Find Disaster Risk Reduction Resources				Children obtain knowledge	5
Program Outline					
Children explore the school and discover disaster risk reduction equipment, and emergency stockpiles and equipment stored for the case when the school is used as an emergency site.					
Objective					
Children will learn about resources for disaster risk reduction in the school and learn about the role of the school as an evacuation site.					
Grade	Lesson Type	Venue	Length	Participant Size	
3rd-6th	Lecture	Inside the school	1 lesson period	1 class	
Content					
[Preliminary explanation] (1) Explain the kinds of resources which can be used in emergencies such as firefighting equipment, other disaster risk reduction equipment and materials, stockpiles, etc.					
[Explanation about disaster risk reduction equipment] (2) Explain the disaster risk reduction equipment installed at the school such as fire extinguishers, indoor fire hydrants, an automatic fire alarm system, fire doors, etc. (Different schools have different equipment.)					
[Preparation for the exploration] (3) Conduct preparations for the start of the exploration. <ul style="list-style-type: none"> • Divide the participants into groups if necessary. • Give them materials to fill in what they have found such as copies of the school map in advance. 					
[Starting the exploration] (4) Explain the important points to be remembered during the exploration (notes on safety management). (5) Each group explores the school.					
[Presentation of the Findings] (6) Children present what they found. <ul style="list-style-type: none"> • School staff should tell the children about the items which the children could not find. • Discuss items which may be useful in emergencies besides the disaster risk reduction equipment, if there are any. 					
Important Points when Giving Guidance					
Each school has different equipment. School staff should survey the school's equipment beforehand. Use this opportunity to check what the school has, because the school staff should know about the equipment installed in the school.					






Cooperation with other Organizations		
The program can become more meaningful if the fire service and parents assist with safety management and explanations.		
How the Local Community (Disaster Risk Reduction Organization) can be Involved		
The program can become more effective if community members stand by at the places where the equipment is installed in order to give explanations to the children.		
Assistance from Fire Station Staff and Volunteer Fire Corps Members		
They give explanations about the equipment and guidance on how to use the equipment.		
Necessary Equipment and Materials (Standard Items and Quantities)		
Name of the equipment/material	Quantity	Can be Prepared by
School map	1 copy per participant	School, fire service
Remarks	Schools are designated as an evacuation site depending on the area. If the school is designated as an evacuation site, explain the function of the school as an evacuation site.	
"Souvenirs" to Take Home		
Let children take home the paper (see the Reference) in which they filled out the results of the "School Exploration to Find Disaster Risk Reduction Resources." Instruct children to explain to their parents the function of the school as an evacuation site which they learned in the program.		
Additional Information about this Program		
Although children would not use the equipment in reality, the program can give an opportunity for the children to become interested in disaster risk reduction through getting to know about disaster risk reduction equipment in the school and in the community.		
The program can also give an opportunity for children and their families to talk about disaster risk reduction and preparedness at home, through the children taking home what they learned.		
Lessons Learned from Past Earthquakes and other Disasters which are Related to this Program		
In the Great Hanshin-Awaji Earthquake (which struck Kobe), there were many difficulties at evacuation sites (schools) and many lessons were learned from the experience. As a result, stockpiles of food and blankets were stored and water supply facilities, temporary toilets, etc. were installed at each school in Kobe.		
Knowing the existence of these stockpiles and facilities is important, but it is also important to obtain the necessary knowledge and skills to effectively utilize these items in emergencies (through conducting fire drills, etc.)		
Variations		
You can also limit what to find to "fire extinguishers" and make teams compete to find as many fire extinguishers as possible. Then, Program 8 "Target Shooting Game with Water Fire Extinguishers" can be conducted using the remaining time.		
Comments of Children who Participated in the Program (in Japan)		
<ul style="list-style-type: none"> • I now know how many fire extinguishers there are in the school. • There were two fire extinguishers in the school lunch kitchen. It is because the school lunch kitchen is dangerous. • There were rice, biscuits, canned food and water in case of earthquakes. I was impressed. • I wonder if everybody can fit in the gymnasium. I should do volunteer activities. 		

Walking in the Town to Find Disaster Risk Reduction Resources			Children obtain knowledge	6
Program Outline				
Children walk in the town to discover hazardous places in the town and learn that there are useful items for disaster risk reduction in the town such as disaster risk reduction equipment storehouses, fire cisterns and fire pumps.				
Objective				
Children will learn the need for and the methods for disaster preparedness which are suitable for their town.				
Grade	Lesson Type	Venue	Length	Participant Size
3rd-6th	Lecture	Outdoors (inside the school district)	90 min.	1 class or 1 school grade
Content				
[Preparation] <ul style="list-style-type: none"> Prepare copies of a base map of the school district. Divide the participants into groups if necessary. Consult with the local community and the fire station and survey the disaster risk reduction facilities, equipment and resources in the town beforehand. 				
[Preliminary explanation] (1) Explain what kinds of facilities, equipment and materials there are before starting the walk.				
[Disaster risk reduction facilities and equipment] Fire hydrants, fire cisterns storehouses, signs indicating evacuation sites (the signs can also be found in the school), etc. [Disaster risk reduction resources] Evacuation sites, business establishments (supermarkets, plants, etc.) hospitals, ponds, rivers, etc. Discuss what kinds of hazards, disaster risk reduction facilities, equipment and resources can be considered beforehand, if time allows.				
[Walking in the town] (2) Children walk in the town.				
[Creation of a safety map and presentation] (3) Children create a safety map based on the base maps on which the children put the information that they found. (4) When the safety map is completed, the children make a presentation. Let them ask the questions which they had during walk in the town in the presentation.				
Important Points when Giving Guidance				
(1) Let the children learn that there are many hazards and items prepared for emergencies in familiar places. (2) There are an unlimited number of disaster risk reduction resources if one uses imagination. Teachers should use their ingenuity to let children find many disaster risk reduction resources.				






Cooperation with other Organizations		
This activity is conducted over a wide area. Therefore, it is recommended that the school conducts this activity in cooperation with the local community (disaster risk reduction organization), parents, the fire station, etc.		
How the Local Community (Disaster Risk Reduction Organization) can be Involved		
Ask them to walk in the town with the children or wait at the sites and give explanations.		
Assistance from Fire Station Staff and Volunteer Fire Corps Members		
They can give advice on hazardous sites, disaster risk reduction facilities, equipment and resources.		
Necessary Equipment and Materials (Standard Items and Quantities)		
Name of the equipment/material	Quantity	Can be Prepared by
Base map (for walking in the town)	1 copy per participant or group	School
Large drawing sheet (for creating a safety map)	1 per group	School
Marker pen (for creating a map)	1 set per group	School
Post-it stickers (for creating a map)	1 set per group	School
Newspaper (to place under paper)	1 set per group	School
Remarks	If a safety map is not to be created, the program can be conducted using base maps and writing instruments only.	
"Souvenirs" to Take Home		
Instruct the children to take home the information that they found by walking in the town ("hazardous sites," "disaster risk reduction facilities and equipment," "disaster risk reduction resources," etc.) and tell their parents about it (see the Reference).		
Additional Information about this Program		
In addition to hazardous sites related to earthquakes and other major disasters, you can also include information about hazardous sites which can be encountered in daily life, such as accident black spots, places where suspicious people have been spotted, cliffs and reservoirs, so that children can learn the need to watch out for dangers in everyday life.		
Variations		
If information related to "historic sites in the town" and "crime prevention" is included in the things to find in the town walking and the activity is conducted in cooperation with the local community (disaster risk reduction organization), the school can deepen the relationship with the community.		
Points to Note		
(1) When children walk in the town, a large number of adults are needed for safety management.		
(2) Make children follow traffic rules and watch out for any hazards around the children.		
Comments of Children who Participated in the Program (in Japan)		
<ul style="list-style-type: none"> • I was surprised because there were so many things. • I was surprised to find a water tank underneath a park. • There were helmets and shovels in an equipment storehouse. • I wonder what the hammers in the equipment storehouse are used for. • I thought that we would be all right when an earthquake strikes if we remember what we learned today. 		

Evacuate Safely and Surely! (Evacuation Drill)				Children obtain knowledge	7
Program Outline					
In schools, many people including children should be able to evacuate swiftly when there is a fire or an earthquake. This ability is tested through an evacuation drill in order to make sure that people can evacuate effectively in an emergency.					
Objective					
Children will obtain knowledge and skills to evacuate safely through conducting a drill in cases of emergencies.					
Grade	Lesson Type	Venue	Length	Participant Size	
All	Drill	Outdoors	20 min.	1 class to the whole school	
Content					
[Learning the correct evacuation method] (1) Children learn the safe evacuation method in the case of earthquakes and fires before the drill. (Give an explanation about the method after the drill, if the drill is to be conducted without warning.)					
[Announcement on the launch of the drill] (2) The launch of the drill is notified using the alarm bell and the school's public address system. The launch can also be announced in a loud voice.					
[Starting the evacuation] (3) Pupils start evacuating in classes by following school staff's instructions. Conduct the drill while following the rules of "Do not push, do not run, and do not talk" in order to prevent the occurrence of accidents (for example people falling down one upon another) by rushing too much, although it is important to evacuate quickly.					
[Confirming the completion of the evacuation] (4) When everybody has evacuated to the playground, etc., the school staff count the number of pupils and report to the Principal or the Vice-principal in order to check if anybody failed to escape. Measure the time it takes to complete the evacuation.					
[Reporting results] (5) When those who act as the fire crews arrive, the Principal or the Vice-principal reports the situation to them (such as where the fire started, the spread of fire, whether or not anybody failed to escape, etc.) (6) The Principal or the Vice-principal (the fire station staff if there are) announces the result.					
Important Points when Giving Guidance					
Make the evacuation drill more effective by conducting it in combination with other programs, etc.					

Cooperation with other Organizations		
It is possible to conduct this program with only the school staff, but cooperating with the local community and the fire station and adding variations can improve the program further.		
How the Local Community (Disaster Risk Reduction Organization) can be Involved		
(1) They can assist with conducting other programs after the evacuation drill is finished.		
(2) Conduct a drill to hand over children to parents after the evacuation drill is finished.		
Assistance from Fire Station Staff and Volunteer Fire Corps Members		
Ask them to comment on the drill and to assist with other programs if other programs are to be conducted.		
Necessary Equipment and Materials (Standard Items and Quantities)		
Name of the equipment/material	Quantity	Can be Prepared by
Megaphone	1	School
Watch (stopwatch)	1	School
Smoke machine, smoke canister, etc. (if available)	1	Fire service, etc.
Additional Information about this Program		
In order for people inside to evacuate safely and surely, large buildings such as schools are equipped with various firefighting facilities. Check what kinds of facilities are available in advance (such as fire doors, emergency exit lights, the automatic fire alarm system, the emergency announcement system, escape ladders, smoke extraction systems, etc.)		
Basic rules which should be followed by children when evacuating are "Do not push, do not run, and do not talk."		
Lessons Learned from Past Earthquakes and other Disasters which are Related to this Program		
The overriding principle in emergencies is to "protect your own life and body." This is the first thing that people should do in emergencies. Particularly, this should be taught without exception in primary education. Therefore, it is crucial for children to learn one method to protect themselves through the evacuation drill.		
Variations		
(For any scenario)		
Divide the participants into groups and decide on the group leaders. Before starting an evacuation drill, let the pupils check the fire doors, etc. and think about which route is safe to use when evacuating. Then, ask each group to present their conclusion.		
(Fires)		
One way to conduct an evacuation drill is to use a smoke machine or smoke canisters which produce odorless and harmless smoke in order to let participants experience escaping in smoke.		
(Earthquakes)		
Before starting evacuation, conduct training for the pupils to protect themselves (such as crawling under the desk). Some paths may be impossible to go through particularly in the case of an earthquake. Therefore, placing some areas off limits is a good way to make the drill effective.		
Points to Note		
A great number of people move simultaneously in the drill. Follow the rules of "Do not push, do not run, and do not talk" and look out carefully in order to prevent accidents such as falls.		

Target Shooting Game With Water Fire Extinguishers				Children obtain skills	8
Program Outline					
Children learn how to use fire extinguishers through enjoying a target shooting game.					
Objective					
Children will obtain knowledge about disaster risk reduction and become interested in disaster risk reduction, through using fire extinguishers in a game.					
Grade	Lesson Type	Venue	Length	Participant Size	
3rd-6th	Practical training	Outdoors	20 min.	1 class	
Content					
[Preparation] <ul style="list-style-type: none"> Prepare water fire extinguishers and a compressor (any type of water fire extinguisher designed for drill purposes can be used). Prepare targets. 					
[Devising interesting targets] By devising various interesting targets, children can learn how to use the fire extinguishers while having fun, for example knocking over balls, knocking down panels, using PET bottles as targets, etc.					
[Explanation about the handling of fire extinguishers] (1) Teach children the mechanism of fire extinguishers and how to use fire extinguishers, using a cross-sectional model of a fire extinguisher, a real fire extinguisher, etc.					
[Launching the game] (2) Conduct the target shooting game. Find ways to make the game interesting for children who are waiting for their turn so that they can also concentrate on the activity.					
[Explanation about points to remember] (3) Fully explain the difference between a water fire extinguisher for use in drills and a real fire extinguisher (such as the ejection time and the distance). Instruct the children to call nearby adults in the case of a real fire, rather than risk fighting the fire.					
Important Points when Giving Guidance					
(1) Fully explain the difference between a water fire extinguisher for use in drills and a real fire extinguisher. (2) Instruct children to report to nearby adults immediately if they find a real fire.					

Cooperation with other Organizations		
This program requires assistance from the fire station or other similar organizations, regarding the preparation of equipment and materials, etc.		
How the Local Community (Disaster Risk Reduction Organization) can be Involved		
Ask the local community (disaster risk reduction organization) to give an explanation about how to use fire extinguishers.		
Assistance from Fire Station Staff and Volunteer Fire Corps Members		
Ask them to prepare water fire extinguishers and targets, as well as give a detailed explanation about fire extinguishers.		
Necessary Equipment and Materials (Standard Items and Quantities)		
Name of the equipment/material	Quantity	Can be Prepared by
Water fire extinguisher for use in drills	1 per 2-3 participants	Fire service, etc.
Compressor	1	Fire service, etc.
Water tank (not necessary if water is taken directly from taps)	1	Fire service, etc.
Cross-sectional model of a fire extinguisher (if available)	1	Fire service, etc.
Targets for fire extinguishers	1	Fire service, etc.
Remarks	Conduct the program in accordance with the conditions in your country, if fire extinguishers used in your country have different handling methods.	
"Souvenirs" to Take Home		
Use this opportunity to ask the children to check if there are fire extinguishers in their house and their neighborhood, what types they are and where they are installed.		
Additional Information about this Program		
<p>The following are the differences between a water fire extinguisher and a real fire extinguisher.</p> <ul style="list-style-type: none"> • Content (A real extinguisher is filled with a fire-extinguishing agent.) • Ejection time (about 30 seconds for a water fire extinguisher, and about 15 seconds for a real powder fire extinguisher) • Ejection distance (The effective distance for a water fire extinguisher is about 8 meters and the effective distance for a real powder fire extinguisher is about 2-3 meters.) 		
Variations		
The game can be made into a competition where the participants are divided into teams and each team competes with each other for the shortest time needed to hit all the targets. This will enable everybody to concentrate on the game because they will be interested in the other teams' times when the other teams are playing.		
Comments of Children who Participated in the Program (in Japan)		
<ul style="list-style-type: none"> • The game used interesting targets. • I want to do it again. • I understood how to use the fire extinguishers well. • I think I can use a fire extinguisher when there is a real fire. • I am glad that we became the champions (in a competition game). 		

Experiencing the Transportation of a Person Using a Blanket				Children obtain skills	9
Program Outline					
Children make a temporary stretcher using everyday objects such as laundry poles, bamboo poles and blankets and transport a person. They also learn how to transport the sick and wounded if time allows.					
Objective					
Children will learn that everyday objects can become useful if good ways of using them are devised. They will also learn the importance of mutual help and cooperation.					
Grade	Lesson Type	Venue	Length	Participant Size	
3rd-6th	Practical training	Indoors/outdoors	20 min.	1 class or 1 school grade	
Content					
[Explanation about the situation in an earthquake] (1) Explain that the injured were transported using various methods in the Great Hanshin-Awaji Earthquake (using blankets, doors, tatami mats, etc.)					
[Explanation about how to make a stretcher] (2) Explain how to make a blanket stretcher (see the Reference).					
[Making a stretcher] (3) Let the children make a blanket stretcher.					
[Transporting a person] (4) One participant acts as a sick/injured person who lies on the stretcher and the others lift the stretcher. (Be careful that the person being carried does not fall. It is safer to use a dummy to conduct the training rather than carrying a person, if there is one.)					
[Comments and review] (5) Ask the children who acted as the injured people for comments. (6) Let the children act as the sick/injured (those who are carried on a stretcher) in turn so that all the participants can experience that role.					
Important Points when Giving Guidance					
It is important to teach children that everyday objects can become useful if good ways of using them are devised, by showing children some examples of everyday objects which can be used to make a stretcher. (For example, a person can be transported using a blanket alone or a stretcher can be made using clothes and poles.)					

Cooperation with other Organizations		
It is recommended that this program is conducted in cooperation with the local community (disaster risk reduction organization) and the fire station in cases where it is difficult for the school alone to prepare equipment and materials. Such cooperation is also useful because a large number of personnel are required for explanations and safety management.		
How the Local Community (Disaster Risk Reduction Organization) can be Involved		
Ask them to prepare equipment and materials, give an explanation about how to make a stretcher and conduct safety management.		
Assistance from Fire Station Staff and Volunteer Fire Corps Members		
They give guidance on blanket stretchers in advance to the school staff and the local community (disaster risk reduction organization). They also assist with the safety management and preparation of equipment and materials on the training day.		
Necessary Equipment and Materials (Standard Items and Quantities)		
Name of the equipment/material	Quantity	Can be Prepared by
Blanket	1 per 4-5 participants	School, fire service
Pole (bamboo pole, laundry pole, stilts, etc.)	2 per blanket	School, fire service
Dummy (if available)	1 per blanket	Fire service, etc.
Stretcher /Material on which a person can be carried, such as a board	1 each	If possible to prepare
Remarks	This program can also be conducted using blankets only	
"Souvenirs" to Take Home		
Instruct the children to tell their parents about what they learned at school including how to make a blanket stretcher and the things which can be used instead of a stretcher, when they go home.		
Additional Information about this Program		
(1) When carrying a dummy or a person on a stretcher which was made using poles and a blanket, the blanket can slide off the poles if the doll or the person is too light, because the friction between the contact surfaces of the blanket is too small.		
(2) Essentially, a person should be carried by keeping the position of the head slightly higher, although this depends on the injury.		
(3) Walking in step together by saying "one, two, one, two" when carrying an injured person can minimize vibrations felt by the injured.		
Points to Note		
(1) When a person acts as the sick/injured person, be careful that they do not fall, and limit the activity to lifting the stretcher slightly.		
(2) When children lift a person or a dummy, instruct them not to try too hard and to lift using the correct posture (keep their back straight and lift using the leg muscles), in order to prevent back injuries, etc.		
Comments of Children who Participated in the Program (in Japan)		
<ul style="list-style-type: none"> • It was heavy. • I was surprised to see that a stretcher can be made so easily. • I think that the blanket might slide off if a 200 kg person lies on it. • I am glad that now I can help people. • It was good that I was able to practice carrying injured people in case there is an earthquake. 		

Let's Practice Treating Injuries

Children obtain
skills

10

Program Outline

Children practice treating injuries using triangular bandages in different ways and use different methods to stop bleeding which can be conducted by elementary school students relatively easily.

Objective

Children will learn the simple skills needed to treat injuries and learn the importance of first aid being performed by citizens.

Grade	Lesson Type	Venue	Length	Participant Size
5th, 6th	Practical training	Indoors	Depends on the content	1 class

Content

[Introduction]

Introduce successful cases of first aid and explain the importance of administering first aid while waiting for the arrival of an ambulance (see the Description).

[Explanation of the methods for treatments]

(1) Select some of the methods for using triangular bandages and the methods to stop bleeding and explain them to the children (see the Reference).

It is easier to conduct this part if people with experience can give the explanation.



[Practicing treatment]

(2) The participants make pairs and practice the treatments that have been explained.

Note: One person acts as the sick/injured person and another person administers the treatment.



[Rotation]

(3) Rotate the role of the sick/injured person and let them practice the treatments.

(4) Conduct the training in a competition style if possible (see the Description).



[Summary]

(5) Tell children to keep in mind the importance of first aid, although they only get limited experience of first aid in this program.

(6) Ask the children to think about what can be useful if triangular bandages are not available.



Important Points when Giving Guidance

(1) It is important to give the explanation in a way so that children really understand the importance of first aid through the experience, although first aid techniques may be difficult for elementary school children.

(2) Keep the number of methods to be practiced to 2-4 kinds rather than teaching too many methods.

Cooperation with other Organizations		
Conduct this program in cooperation with the local community (disaster risk reduction organization), volunteer fire corps, etc. because children can get better explanations if there are many instructors.		
How the Local Community (Disaster Risk Reduction Organization) can be Involved		
Ask them to assist with the first aid guidance.		
Assistance from Fire Station Staff and Volunteer Fire Corps Members		
They conduct preliminary guidance for school staff. They also assist with guidance on the training day.		
Necessary Equipment and Materials (Standard Items and Quantities)		
Name of the equipment/material	Quantity	Can be Prepared by
Triangular bandage	1 per 2 participants	School
Magazine	Necessary quantity	School
Handkerchief	Necessary quantity	School
Towel	Necessary quantity	School
Plastic bag	Necessary quantity	School
Piece of wood (as a splint, if available)	Necessary quantity	School
Remarks	Triangular bandages need to be purchased.	
"Souvenirs" to Take Home		
Instruct the children to tell their parents about what they have learned in the program because there are many adults who do not know these methods.		
Additional Information about this Program		
It is important to administer first aid, but it is possible that the helpers will be infected with various diseases if they touch body fluids of the sick and the wounded, such as blood and vomit. The effort will come to nothing if the rescuers get infected with diseases and it leads to irreparable consequences. Therefore, properly teach the children the importance of infection control, for example, using plastic gloves when administering first aid in order to avoid touching blood and vomit directly, and using a mouthpiece when giving mouth-to-mouth respiration.		
How Parents can Participate		
This program is taken from part of the emergency training programs and lectures for adults. Therefore, ask the parents to participate in the program if there is a chance.		
Variations		
(1) It is also effective to conduct training on how to make blanket stretchers in combination with this program under the theme of rescue and relief operations.		
(2) If the children are learning well, it is also possible to hold a competition (see the Description).		
Comments of Children who Participated in the Program (in Japan)		
<ul style="list-style-type: none"> • It was good that I was able to learn how to fold a triangular bandage without putting it on the floor. • If I bleed now, I can have the bleeding stopped because there are bandages and plasters, but when a disaster happens, I want to remember today's lesson and do what I learned. • I want to help injured people and fallen people when a disaster happens. 		

Showdown! Bucket Brigades

Children obtain
skills

11

Program Outline

Although bucket brigades are often conducted in local community's emergency drills, this program makes children compete to see which team can fill the tank the fastest, instead of conducting a normal fire drill using bucket brigades.

Objective

Children will learn the importance of cooperating with each other in emergencies and foster a spirit of mutual help.

Grade	Lesson Type	Venue	Length	Participant Size
All	Practical training	Indoors	30 min.	1 class to the whole school

Content

[Preparation]

- Prepare the water source (water tanks, tap water, etc.).
- Prepare the buckets, etc.

[Introduction]

(1) Explain that, in the Great Hanshin-Awaji Earthquake, fire crews alone could not fight the fires because the fires occurred in many places and so the residents cooperated with each other to fight the fires using bucket brigades (see the Description).



[Letting the children compete in their own way]

(2) Divide the children into teams and start a competition to fill a tank with water. Let them try in their own way, even if they do not form a bucket brigade.



[Explanation about the correct method]

(3) Explain the effective bucket brigade method (see the Reference).



[Holding another competition using the correct method]

(4) The children compete again using bucket brigades.
(5) Ask them which method was more effective when comparing the first method to the second method.



Important Points when Giving Guidance

It is important to devise ways to let children learn that cooperating with each other will make the activity more effective rather than each person acting individually.

Cooperation with other Organizations		
When conducting this program, ask parents, the fire station, community residents, etc. to assist with the preparation of the equipment and materials, giving guidance and conducting safety management.		
How the Local Community (Disaster Risk Reduction Organization) can be Involved		
Ask them to give guidance on bucket brigades, etc. They can also participate in the training with children.		
Assistance from Fire Station Staff and Volunteer Fire Corps Members		
They assist with the preparation of the water tanks and buckets and giving guidance on bucket brigades.		
Necessary Equipment and Materials (Standard Items and Quantities)		
Name of the equipment/material	Quantity	Can be Prepared by
Items which hold water such as buckets, washbowls and plastic bags	Necessary quantity	Home, community, school
Other items in which water can be carried (Try many different items.)	Necessary quantity	Home, community, school
Water tank (for a water source)/ (to fill with water in competitions)	1 each	Fire service
Trolley	1	School, fire service, community
Hose (to pour water into a tank for a water source)	1	School
Fire pump , Fire hose	1 each	Fire service, etc.
Remarks	(1) The program can be made more interesting by for example putting a basket ball in the tank (to fill with water in competitions) so that the ball falls out of the tank when the tank is filled with water. (2) A fire pump is useful to discharge water from the tanks used for bucket brigades.	
How Parents can Participate		
(1) This is a good program for parents to participate in because there is no limit in the number of participants and the method can flexibly be adjusted depending on the number of participants, etc. (2) This will also be a useful experience for the adults because adults also do not know effective bucket brigade methods in many cases.		
Lessons Learned from Past Earthquakes and other Disasters which are Related to this Program		
(1) In the Great Hanshin-Awaji Earthquake (occurred in Japan), different items which can be used to carry water were collected to fight fires using bucket brigades, because there were a limited number of buckets available. Some survivors even called bucket brigades as "trash bin brigades." (2) Bucket brigades can be used to carry various goods besides water for firefighting. For example, bucket brigades can be used to take relief supplies and water to the upper floors of tall buildings and to remove large quantities of rubble from collapsed houses.		
Variations		
If various goods which can carry water in them are collected and used in addition to buckets, the participants can learn to utilize different items according to the circumstances (plastic buckets, trash bins, plastic bags, washbowls, etc.)		
Comments of Children who Participated in the Program (in Japan)		
<ul style="list-style-type: none"> • The buckets were heavy. • I want to help people by working with my neighbors when a disaster happens. • I want to practice more because it will cause a lot of damage if we do not put out fires more quickly. • I realized that cooperation is important. • If there is a real fire, I want to put it out using the bucket brigade method that I learned today. 		

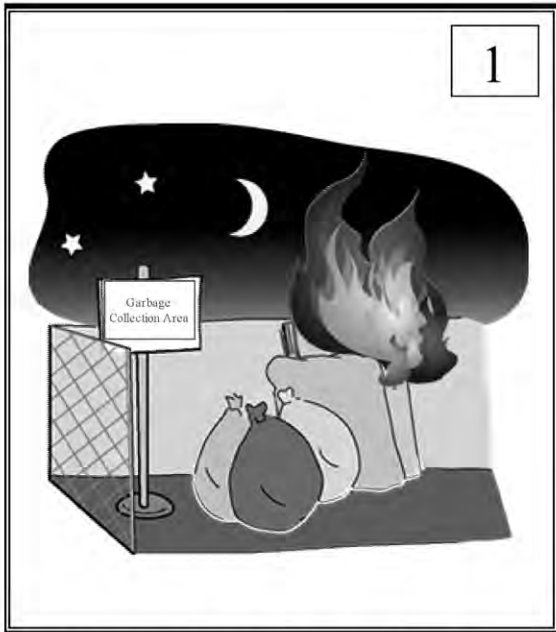
Program No.		Description No.3		
3		Program Name		
Drawing your Image of an Earthquake				
Learning Goals				
Find out the difference between the image of earthquakes that children have and the visual images from actual earthquakes. Imagine what our town will be like when an earthquake hits and learn the necessity of earthquake preparedness. Learn how important it is for us to lead our daily lives and appreciate what we may take for granted.				
Relationship with Other Subjects				
"Drawing and Manual Arts" - Learn a method of expression through drawing and the skills of drawing "Ethics" - Learn the spirit of cooperation and the importance of living - Learn the role of local communities				
Timetable				
Introduction	Draw a picture	Give a presentation on the drawing	Conclusion	
5 minutes	15-20 minutes	10-15 minutes	5-10 minutes	
Procedures (Support and Points of Concern)				
<p>[I. Introduction (5 minutes)] A. Tell children that almost every year big earthquakes hit some countries in the world and they cause big damages. (It may be a good idea to ask children what they know about earthquakes.) (If your country has suffered from an earthquake, you may talk about the damages briefly.) B. "Let's draw pictures of earthquakes. What do you think will happen to our town when there is a big earthquake? Image and draw a picture of your imagination." (Do not give any specific images of earthquakes. Let children draw freely.)</p> <p>[II. Draw a picture (15-20 minutes)] A. No group work needed. Each child draws on their own in a class.</p> <p>[III. Presentation of pictures (10-15 minutes)] A. Show the picture to classmates. If the time allows, all children, or some children if difficult, give a presentation of their pictures in front of the class, telling the class what kind of images they had when drawing it. B. It may be a good idea to summarize on the blackboard what images children had.</p> <p>[IV. Show actual visual images / Conclusion (5-10 minutes)] A. Show photographs or movies of earthquakes (images of destroyed buildings, fire, and tsunami) to children and tell what kinds of damages are caused by earthquakes. Tell children an earthquake may cause not only collapse of buildings but also fire and tsunami. B. Make children aware the difference between their own images of earthquakes and what they have learned and have them write about it. Have children present what they wrote in front of the class.</p> <p>(Conclusion) A. Tell children our usual daily lives may be disrupted when an earthquake hits, for example, there will be no electricity, gas, or water, or roads and buildings may be collapsed. (Realize how fortunate it is for us to be able to lead our daily lives and appreciate it) B. Think what we should do when an earthquake occurs. C. Ask children to talk with their family when they go home if they prepare for earthquakes as we discussed today. (If your country, your school, or a teacher from your school has suffered from an earthquake, tell the experience to children.)</p>			<p style="text-align: center;">Learning Activities for Children</p> <ul style="list-style-type: none"> ○ Imagine an earthquake and draw a picture "Will buildings collapse when an earthquake hits?" "Will roads be disrupted?" "Will my house collapse?" ○ Give a presentation using the drawing "So-and-so drew a picture of her house." "So-and-so drew a fire." "So-and-so drew a collapsed train." ○ Compared with the actual photographs of earthquakes, write down what is different from your drawing. "I learned that an earthquake may cause a fire." "I learned that many buildings may be destroyed." "I learned that an earthquake may cause tsunami." "I saw injured people." "I learned that some people lost their houses." ○ Consider what can we do to prepare for an earthquake. "We should make houses and roads stronger." "We should prepare an evacuation backpack." "We should hold evacuation drills often." "We should fix closets and other big pieces of furniture." 	
Development toward/Relationship with Other Programs				
<ul style="list-style-type: none"> · After gaining knowledge about earthquakes, learn practical ways to respond to earthquakes (e.g. how to evacuate from school in case of an earthquake) in Program 7 "Evacuation Drill (in case of an earthquake)." · Learn how to transfer people in case of a disaster, how to administer first aid, and how to extinguish a fire in Programs 9, 10, and 11. 				

Program No.	Reference	Description No.4	
4	4-1		
Program Name			
Emergency Reporting Drill "Call XXX in the Case of Injuries and Fires!"			
Learning Goals			
Gain knowledge of reporting fire and emergency cases and learn how to report it			
Relationship with Other Subjects			
"Social studies" - Learn roles of the fire department and reporting system			
Timetable			
Introduction	Reporting practice	Conclusion	
5 minutes	10 minutes	5 minutes	
Procedures (Support and Points of Concern)			
<p>[I. Introduction (5 minutes)]</p> <p>A. Explain to the children about when and where to report cases of a fire or other emergency, as well as from where a fire engine or an ambulance is dispatched.</p> <ul style="list-style-type: none"> · When do we report? In case of a fire or emergency (sudden illness, a traffic accident with an injured person, or injuries), call the fire station. * In case of an incident or an accident, call the police. * Depending on the country, the emergency telephone number and fire reporting number are different. Give an appropriate explanation according to the situation. · Where do we report? In the case of Kobe City, all the fire and emergency calls within the city are directed to the "Fire Department Control Room." Explain that they are not calling the nearby fire station when they make an emergency call. So, it is important that they give precise information about where they are calling from. · Where is an ambulance or a fire engine dispatched from? In the case of Kobe City, after receiving an emergency report, the Control Room will automatically select the fire station that is the closest from the emergency site, and order to dispatch a fire engine or an ambulance from there. <p>B. Tell the children that they will learn how to make an emergency call in today's lesson.</p> <ul style="list-style-type: none"> * Preparation - prepare a telephone (a broken phone or a toy phone can be used for the exercise) to make an emergency call <p>[II. Reporting practice (10 minutes)]</p> <p>A. Using Reference 4-1 ("Report Accurately"), learn how to make an emergency call for each type of situation. Please refer to Reference 4-1 (Teacher's manual) for details.</p> <p>B. Ask some children to demonstrate the call in front of the class for each situation. Ask them how they felt. According to the timetable, adjust the number of children who can demonstrate in front of the class.</p> <p>[III. Conclusion (5 minutes)]</p> <p>A. Review where an emergency call is directed to and where an ambulance or fire engine is dispatched from.</p> <p>At this point, explain reporting not only for fires but also for emergencies or to the police, including the telephone number.</p> <p>B. Explain to the children why they must not make emergency calls for fun because it is for a citizen who needs to make an urgent call.</p> <p>C. Instruct the children to first look around to find an adult and ask for help in a loud voice, in case of a fire.</p> <p>D. Conclude the lesson by sharing the teacher's experiences, etc.</p>		<p>Learning Activities for Children</p> <ul style="list-style-type: none"> ○ Learn the mechanism of an emergency call <ul style="list-style-type: none"> · In case of fire or emergency, call XXX. · The emergency call will be directed to XXX (place). (It differs according to countries.) · Where is a fire engine or ambulance dispatched from? (the fire station, etc.) ○ Conduct a reporting practice. <ul style="list-style-type: none"> · Four situations ○ Talk about how they felt during the demonstration in front of the class. 	
Development toward/Relationship with Other Programs			
<p>* This program lasts approximately 20 minutes (it can be adjusted by changing the number of children who give phone demonstrations), and can be combined with other topics.</p> <ul style="list-style-type: none"> · After learning how to make an emergency call, develop the topic by combining it with Program 8 or 11 for learning the skills of extinguishing a fire, or Program 10 for learning how to administer first aid. 			



Report it accurately!

You are a witness. There aren't any adults around you. You have to report now.



This is a garbage collection area near your house.



This is a house near your elementary school. There is another house next to this house. (There seems to be no one in these houses.)



A friend of yours was hit by a car and got injured. (There is a factory in the neighborhood.)



This is in your house. (Be careful not to let this kind of thing happen. This is only a drill.)

Example of how to respond as a Control Officer

[In case of a fire] (1)



(2)



(4)



The role of a control officer	Example of responses of a reporter
* There is an incoming telephone call. "Hello, This is the Control Room of XX City Fire Department. Is it a fire or an emergency?"	"It's a fire."
"It's a fire, isn't it? What is on fire?"	"XX is on fire."
"Where is it?"	(Child responds with the address of their house or the school.)
* In case of not being able to tell the address "Can you see any landmarks nearby?"	"There is an elementary school."
"Can I have your name, please?"	"My name is XXXX."
"Could you tell me your telephone number?"	"It's XXX-XXXX."
* (Add a few optional dialogues)	
"OK. We will dispatch a fire engine immediately. If it is dangerous, please evacuate to a safe place."	"Yes, I will."
* Hang up the phone.	* Hang up the phone.
Optional dialogues:	
"Is there anything that burns easily near the fire?"	"There is another house." "No, there isn't."
"How big are the flames?" "How high is the blaze?"	"It is as high as my height." "I don't know."
"Are there any adults around you?"	"No." "Yes."
* If so, "Tell the person about the fire immediately."	"Yes, I will."
* Situation 2: "Which part of the house is on fire?"	"The second floor is on fire."
* Situation 2: "Is anyone still inside the house?"	"I don't think there is anyone inside the house." "I don't know."
* Situation 4: "Do you have a brother or sister with you now?"	"No." "Yes."
* If Yes, "Evacuate with them immediately."	"Yes, we will."
* Situation 4: "Is there a fire extinguisher in your house?"	"Yes, there is." "No, there isn't."
* If Yes, "Do you think you can put the fire out?"	"Yes, I will try." "No, I don't think I can do it."
If the child cannot respond, or hesitates to respond, solicit a response by changing the question.	

Example of how to respond as a Control Officer

[In case of an emergency] (3)



The role of a control officer	Example of responses of a reporter
* There is an incoming telephone call. "Hello, This is the Control Room of XX City Fire Department. Is it a fire or an emergency?"	"It's an emergency."
"It's an emergency, isn't it?" "What happened?"	"A friend of mine was hit by a car."
"Where is it?"	(Respond with a possible address)
* In case of not being able to tell the address "Can you see any landmarks nearby?"	"There is a factory."
"Can I have your name, please?"	"My name is XXXX."
"Could you tell me your telephone number?"	"It's XXX-XXXX."
* (Add a few optional dialogues)	
"OK. We will dispatch an ambulance immediately. When the ambulance arrives, direct it to the emergency site."	"Yes, I will."
* Hang up the phone.	* Hang up the phone.
Optional dialogues:	
"Is the injured person conscious?"	"Yes."
"Where was he/she injured?"	"His/her hand is injured."
"How does it look?"	"It's bleeding."
"Did he/she hurt other body parts?"	"I don't think so."
"What was the accident like?"	"A car hit him/her."
"What kind of car was it? Was it a truck?"	"No, it was a car."
"Where is the injured person now?"	"On the road."
"It's dangerous on the road, so move him/her to the sidewalk."	"Yes, I will."
"Is there anyone else who got injured?"	"No."
"Isn't the driver trapped inside the car?"	"No."
"Is the driver injured?"	"Yes, he/she is."
If the child cannot respond, or hesitates to respond, solicit a response by changing the question.	

Program No.	Reference	Description No.5	
5	5-1		
Program Name			
School Exploration to Find Disaster Risk Reduction Resources			
Learning Goals			
Learn about the disaster risk reduction system at the elementary school and how we should behave during a disaster.			
Relationship with Other Subjects			
"Social Studies" - Learn about the usual preparations for disasters - Learn about the roles of the public facilities, such as schools.			
Timetable			
Introduction and preliminary explanation	Exploration of the school	Presentation and conclusion	
5-10 minutes	25-30 minutes	10 minutes	
Procedures (Support and Points of Concern)			
<p>[I. Introduction and preliminary explanation (5-10 minutes)]</p> <p>A. In Japan, elementary schools etc. are used as emergency evacuation areas. Based on the situation in your country, discuss the places to evacuate and their roles.</p> <p>B. Talk about damages caused by earthquake disasters in your country and other countries.</p> <p>C. Explain in advance what kind of facilities a school has. (Explain the roles and methods of using those facilities.)</p> <p>D. Tell children, that in this program, we are going to explore the school to actually look at the facilities that can be used as the emergency evacuation area, such as a gymnasium, etc., the equipment that is available in case of a fire or places that may be dangerous.</p> <p>E. Give instructions and take precautions before exploring the school (Do not disturb other classes, explain places where children are not supposed to go, such as the roof, do not explore alone, do not go off the school grounds, etc.)</p> <p>F. It may be more effective and safe to make groups and allocate them areas to explore in advance. Utilize or distribute Reference 5-1, and explain tips for exploration.</p> <p>G. Confirm the disaster management system in the school and check what kind of facilities the school has. (by teachers)</p> <p>[II. Exploration of the school (25-30 minutes)]</p> <p>A. Set a time for children to meet and start exploring the school.</p> <p>B. Teachers can be placed in the areas where children might disturb other classes or places that may be difficult for children to find (including places that have hazardous items, such as a science room, or places that may be difficult to find, such as fire hydrants in the building).</p> <p>C. If possible, put up signs indicating such places.</p> <p>D. If a floor plan of the school building is available, make copies and distribute them to the children. This will be a useful tool for the exploration.</p> <p>[III. Presentation and conclusion (10 minutes)]</p> <p>A. Ask each group to give a presentation describing what they found during their exploration. It may be a good idea to ask them to write a summary of their presentation on the blackboard. It may be useful if there is an enlarged floor plan of the school building on the blackboard.</p> <p>B. If copies of the floor plan of the school building are distributed, each child can write their findings on them.</p> <p>C. When children talk about the equipment they found, additional explanations can be given, such as how to use the equipment.</p> <p>D. After the presentation, give an additional explanation if needed. (See the reference 5-1(Teacher's manual).)</p> <p>E. As part of the conclusion of this program, tell children where the equipment is stored, and how to use it in response to a disaster, such as in a classroom, a music room, or a gymnasium. Conclude the lesson by introducing the teacher's experience, etc.</p>		<p>Learning Activities for Children</p> <ul style="list-style-type: none"> ○ Learn about roles that a school takes during an earthquake disaster. ○ Learn about various disaster risk reduction facilities located inside the school. ○ Learn about the procedures for exploring the school. <ul style="list-style-type: none"> · Where to look (areas) · What to look for (listed below) · Places that children should not go · Do not speak loudly. Do not run, etc. ○ Exploration of the school <ul style="list-style-type: none"> <Utilizing Reference 5-1> · Things and places to be used when the school is used as an emergency evacuation area. · Things to be used in case of a fire. · Dangerous places and things. · Things that can assist people. ○ Give a presentation on what they found during the exploration. ○ Make notes on a blank map 	
Development toward/Relationship with Other Programs			
<ul style="list-style-type: none"> · This program can be used before or after the actual evacuation drill (Program 7) to increase children's understanding. · After the exploration of the school, try an exploration in the community (Program 6). 			

School Exploration to Find Disaster Risk Reduction Resources

Grade() Class () Name()

Place that I explored ()

Let's explore!

[Places and things in the school that are available when the school becomes an emergency evacuation area]

Example) Place (1st floor) - Gymnasium (place that evacuees stay)

[Things to be used in case of a fire and things used to alert people about a fire]

[Dangerous places and things]	[Things that can assist people]

School Exploration to Find Disaster Risk Reduction Resources

Grade() Class() Name()

Place that I explored ()

Let's explore!

[Places and things in the school that are available when the school becomes an emergency evacuation area]

- Emergency evacuation areas - the gymnasium and the auditorium, etc.
- Athletic field - Evacuees can stay in tents and cars placed in the athletic field when those places listed above become full. It is also used as an evacuation area for students in case of a fire.
- Bathroom - evacuees can use it.
- Water fountain - same as above
- Swimming pool (with water) - the water can be used for daily use when another water supply is not available.
- Blankets, etc. - if there are other items available in the school that can be used to manage an emergency evacuation area, introduce them at this time.

[Things to be used in case of a fire and things used to alert people about a fire]

- Fire extinguishers - tell children that they should confirm their location in the building (adults will put out the fire)
- Fire hydrants in the building - tell children that they should not leave things around the fire hydrants
- Fire alarm apparatus - the control panels are installed in the teachers' room and custodian's room. → Tell children what to do when a fire alarm goes off.
- Compact power pump - if there is a storage area for supplies and materials, introduce it to children. (blankets and buckets, etc.)

[Dangerous places and things]

- Science Room - dangerous materials, etc.
- Kitchen - gas, etc.
- Things that may fall (lockers, etc.)
- Introduce places and things according to situations.

[Things that can assist people]

- AED (automated external defibrillator) - notify children of the place it is installed.
- Supplies and materials for disaster risk reduction - if these are available in the school, tell children about them with the location where they are stored.
- Health Room - first-aid medicine and stretchers, etc.

- * Confirm in advance about the disaster risk reduction systems and the fire control systems of the school.
- * The above are examples in Japan. Your explanations may need to be changed to suit the situations in your country.

Program No.	Reference	Description No.6			
6	6-1	Program Name			
Walking in the Town to Find Disaster Risk Reduction Resources					
Learning Goals					
Learn about disaster preparedness in the community and dangerous places in the school district					
Relationship with Other Subjects					
"Social studies" - Learn about the role of local communities and daily preparation					
Timetable					
Introduction	Exploration of the town	Creating a safety map	Presentation	Conclusion	
15 minutes	30-40 minutes	30-40 minutes	10-15 minutes	5 minutes	
Procedures (Support and Points of Concern)					
<p>[I. Introduction and preparation (15 minutes)]</p> <p>A. This topic is related to "Community Safety Map" under the part of "Community Emergency Drill Programs." When the children actually go and explore the town, cooperate with the local community and give this program.</p> <p>B. Explain in advance why creating this map is necessary and what they can look for to create the map.</p> <p>C. If a blank map of the town is available, that can be used.</p> <p>D. If you can get support from people in the community and staff members of the fire department or the volunteer fire corps, request that they wait for the children at specific necessary places to give them explanations or operate safety control.</p> <p>E. Divide the class into small groups in advance and allocate them the areas to go to for their research. Keep in mind that the exploration areas should not be too large. Avoid deserted and busy streets to prevent children from accidents or incidents.</p> <p>[II. Exploration of the town (30-40 minutes)]</p> <p>A. Tell the children what time they should meet, then to start their exploration with a blank map. Make sure to tell the children to watch out for cars and to use crosswalks. It may be a good idea to choose a leader for each group.</p> <p>B. Make appropriate preparations, how to contact or where to contact, in case of an emergency, such as giving children cards with the school telephone number on them as well as some change to make telephone calls. If you can get support from people in the community, ask them to stand in certain places during the exploration. It may be a good idea to ask them to explain about disaster risk reduction equipment and materials in front of the storage area.</p> <p>C. Utilize Reference 6-1, write down things that you find out in a sequential manner.</p> <p>[III. Creating a safety map (30-40 minutes)]</p> <p>* Have children take a break in a timely manner</p> <p>A. After coming back from the exploration, each group writes down all their findings on a blank map. It may be a good idea to list all the findings on a big sheet of paper.</p> <p>B. If you can get support from people in the community or the fire department, ask them to take part in creating a safety map and give their opinions.</p> <p>C. If you can prepare a large blank map to put up on the blackboard, have each group of children write down their findings on it according to their exploration areas. This way, an original safety map will be created.</p> <p>[IV. Presentation (10-15 minutes)]</p> <p>A. Each group will give a presentation based on the safety map they made. It may be a good idea to ask them to share their opinions about the exploration in the community.</p> <p>B. If children miss some points, teachers can give additional explanations. If people from the community are present, ask them to share their opinions.</p> <p>[V. Conclusion (5 minutes)]</p> <p>A. Discuss the necessity of doing daily research in the community and the importance of making necessary preparations in case of a disaster, such as an earthquake.</p> <p>B. Tell children that they should also be aware of dangerous places in the community and confirm their evacuation route on a daily basis (from school to home, home to the evacuation area) in case of a disaster. (Confirm in advance the evacuation areas in the community)</p> <p>C. Tell children to talk about the emergency route and area with their family.</p> <p>D. Conclude the lesson by introducing the teacher's experience, etc.</p>			<p>Learning Activities for Children</p> <ul style="list-style-type: none"> ○ Learn the method of exploring the town <ul style="list-style-type: none"> · Where is the exploration area? (School district, up to XX Town, XX Street) · What is the exploration time? (1st and 2nd period) · What do they explore? · What are the points of concern? (Method of contacting teachers in case of an emergency, etc.) ○ Explore the town <ul style="list-style-type: none"> · Act in a group · Explore only the designated area · Come back to the meeting point on time ○ Create a safety map (each group) <ul style="list-style-type: none"> · Write what you discover on the blank map ○ Give a presentation on the findings based on the map created. ○ Share opinions about the exploration. 		
Development toward/Relationship with Other Programs					
· It may be a good idea to explore the school using Program 5 before exploring the community.					

Walking in the Town to Find Disaster Risk Reduction Resources

Grade _____ **Class** _____ **Name** _____ **Group**(_____)

Place that I explored (_____)

Write down what you found during the exploration (including the location)

[Things that you can use in case of a fire or an earthquake/Emergency evacuation areas]

[Dangerous things/places]

[Write down things that you heard from people in the town]

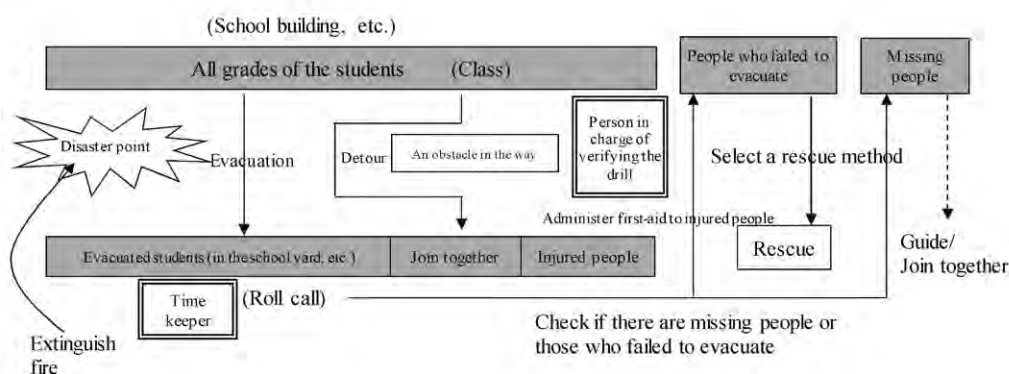
Program No.	Reference	Description No. 7
7	7-1	
Program Name		
Evacuate Safely and Surely! (Evacuation Drill)		
Learning Goals		
Learn the necessity of evacuation drills at school and the procedures of how to actually evacuate from the school building.		
Timetable		
Evacuation drill	Conclusion	
15 minutes	5 minutes	
Procedures		
<p>[I. Preliminary preparation] * Regularly conduct evacuation drills in case of a fire in the school or an earthquake. As a preliminary study, children learn how to evacuate from the school building in case of a fire or an earthquake. Gain enough knowledge about the evacuation plan in each school and confirm how to report the incident, the evacuation areas, evacuation methods, methods of extinguishing a fire, and how to transport injured people, etc. (by teachers)</p> <p>[II. A specific plan for an evacuation drill] A. Discuss and decide at the teachers' meeting what kind of evacuation drills the school should have in case of a fire or an earthquake, using Reference 7-1 "A Scenario of An Evacuation Drill." B. Based on the scenario, determine the roles of each teacher. It is possible to have some teachers experience the drill with the children (without telling them some part of the scenario). Please try. In such a case, the principal, vice-principal, and the teachers in charge should create the scenario, and conduct the drill without giving other teachers and students the information about the disaster point, obstacles in the way, and missing people, etc.</p> <p>[III. Implementation of the drill (15 minutes)] A. Conduct the drill based on the plan. Depending on the contents of the drill, designate people for keeping time, validating the drill, and those who play the role of injured people. B. Teachers and students who play the roles of injured and missing people will be given an explanation, in advance, about their roles, including the location. Tell these students not to talk about their roles with other students. C. The fire drill will start when an automatic fire alarm will go off and an announcement will be given throughout the entire school. As a more practical method, a warning flare can be used in a hallway in order to visually alert the students. This will be the beginning of the drill. In such a case, it is necessary that students inform other students in different classes and different grades of a fire (in the case of a fire drill). D. In the case of an earthquake drill, it may be a good idea to broadcast the rumbling sound of an earthquake in the school public address system to give a more realistic touch. E. After the signal of a disaster, children will evacuate the school building to the schoolyard with the guidance of the teachers. Evacuate with the 3 DON'TS: Don't push, don't run, and don't talk. When there is an obstacle in the way, take a detour. In the case of an earthquake drill, children should go under their desks first, and then start the evacuation. F. When all the children have evacuated to the schoolyard, take a roll call to check if there are any missing people (who failed to evacuate). If there are missing people, teachers in charge will search for them. Other teachers will extinguish the fire (in the case of a fire drill), and administer first-aid if there are injured people. Rescuing people may be done by the firefighting team. (The team can rescue people on the roof using a ladder truck.) * Children can learn about the firefighters' job.</p> <p>[IV. Conclusion (5 minutes)] A. The principal or the head of the fire department can give feedback. The teacher in charge will inform everyone on how many minutes it took to complete the entire evacuation and comment on some points about the drill.</p>	<p>Learning Activities for Children</p> <ul style="list-style-type: none"> ○ Children who play the role of injured people will be given an explanation in advance and play the role accordingly. ○ After the emergency alarm goes off, children will evacuate from the school building according to the teachers' instructions. <ul style="list-style-type: none"> · If the drill is for an earthquake, children should go under their desks first. · If the drill is for a fire, children should cover their mouths with handkerchiefs, etc. and evacuate from the building by keeping their posture as low to the ground as possible. · DON'TS: Don't push, don't run, don't talk, don't return and don't approach. 	
Development toward/Relationship with Other Programs		
<ul style="list-style-type: none"> · An evacuation drill will usually last approximately 20 minutes. After the drill, it may be a good idea to continue with other programs. · It may be followed by a practice of having students picked up by their parents. (Children can go home with their parents after the practice.) 		

Evacuation drill scenarios

1. In the case of a fire drill

- (1) Determine the disaster point ()
- (2) Determine the size of the fire (Possible to extinguish with a fire extinguisher, Possible to extinguish using a fire hydrant, Or Impossible to conduct the primary extinguishment)
- (3) Placement of injured people (Yes: persons/No) (Place:) (Role players: Teachers/Students)
- (4) Presence of people who failed to evacuate (Yes: persons/No)(Place:) (Role players: Teachers/Students)
- (5) Setting a time for the occurrence of the disaster (During a break, During a class: period, During lunch time, Other ())
- (6) Presence of an obstacle in the way to evacuate (Yes/No) (Place: detour:)
- (7) Presence of missing people (Yes: persons/No)(Place:) (Role players: Teachers/Students)
- (8) Placement of teachers who are in charge of verifying the drill (Time keeper/Person who verifies the drill: Places)

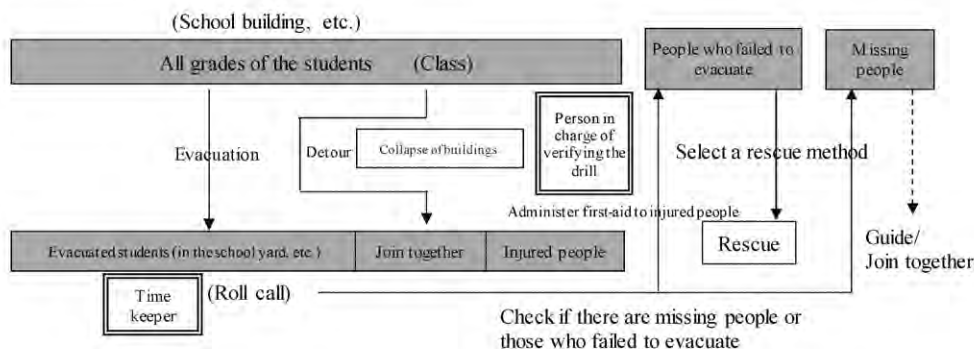
[Procedures of the drill]



2. In the case of an earthquake drill

- (1) Determine the size of the earthquake (Intensity of the earthquake: Damage of buildings:)
- (2) Setting of the damage in the building (Yes/No) (Place: Detour:)
- (3) Placement of injured people (Yes: persons/No) (Place:) (Role players: Teachers/Students)
- (4) Placement of missing people (Yes: persons/No)(Place:) (Role players: Teachers/Students)
- (5) Presence of people who failed to evacuate (Yes: persons/No) (Place:) (Role players: Teachers/Students)
- (6) Setting a time for the occurrence of the disaster (During a break, During a class: period, During lunch time, Other ())
- (7) Placement of teachers who are in charge of verifying the drill (Time keeper/Person who verifies the drill: Places)

[Procedures of the drill]



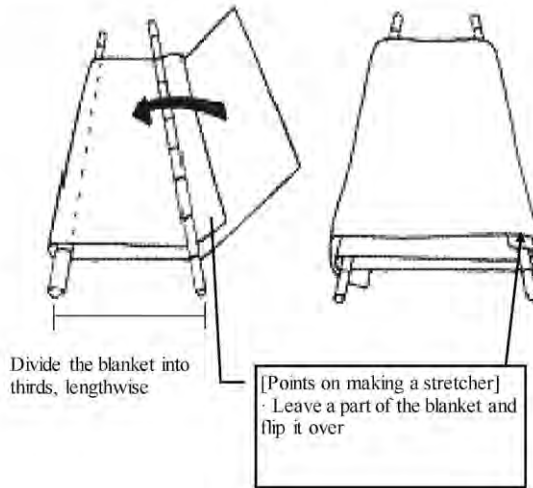
* The scenario can be modified for the case of a tsunami, finding a suspicious object or person, etc. Be creative and make your own scenario.

Program No.		<i>Description No.8</i>	
8			
Program Name			
Target Shooting Game with Water Fire Extinguishers			
Learning Goals			
Learn how to use fire extinguishers through a training that is like a shooting game			
Relationship with Other Subjects			
"Social Studies" - Learn about preparation for disasters			
Timetable			
Introduction	Using water extinguishers for a training purpose	Conclusion	
5 minutes	10-35 minutes (according to the number of participants)	5 minutes	
Procedures			
<p>[I. Preliminary preparation]</p> <p>A. If you can get support from the fire department, volunteer fire corps, or people in the local community, they will prepare the necessary materials and provide guidance on how to use water extinguishers.</p> <p>B. It may be a good idea to request the students' parents to participate in the training.</p> <p>C. The fire department and the local government may have water extinguishers for training purposes and educational models of the fire extinguisher for the training. Contact the local government with inquiries.</p> <p>Preliminary study</p> <p>Preventive measures in the community for disasters and why the community prepares such measures can be studied before the training. This way, children can improve their understanding when they see participants from the local community.</p> <p>Children will also learn where fire extinguishers are installed.</p>		<p>Learning Activities for Children</p> <ul style="list-style-type: none"> ○ Gain knowledge in advance about the fire prevention activities in the community and where fire extinguishers are located. ○ Listen to the explanation about the fire extinguishers and how to use them. <ul style="list-style-type: none"> · Carry the fire extinguishers closer to the fire. · Pull the pin and with the hose, aim at the fire. · Squeeze the lever to release the agent. ○ Play a shooting game using fire extinguishers (for training purposes). ○ Talk about how to use fire extinguishers at home with family members 	
<p>[II. Introduction (5 minutes)]</p> <p>A. Give the following information to children: Fire extinguishers are used to put out the first stage of a fire (which is before any flames reach the ceiling). Children should not try to extinguish a fire and should evacuate immediately and inform adults. Water extinguishers that are going to be used are made for training purposes and cannot be used for an actual fire. An actual dry-powder type fire extinguisher will release the powdered agent when the lever is squeezed and continue administering the agent until it becomes empty (approximately in 15 seconds).</p> <p>B. For this training, the class can be divided into groups and they can compete with one another. This way, the children can enjoy a game element in the training.</p>			
<p>[III. Using water extinguishers for training purposes (10-35 minutes)]</p> <ul style="list-style-type: none"> · A shooting game with a plastic bottle (an empty bottle with a third full of water) as a target <p>A. Put some of these plastic bottles on the desk.</p> <p>B. 1-3 people from each group will take part in this game. At the sound of Start, have each of them pick up a fire extinguisher and move toward the target. Then, have them pull the pin, aim the hose at the target, and squeeze the lever to release the water. (Adjust the number of participants and the targets according to the schedule.)</p> <p>C. To compete in this game, a group has to knock over all the bottles. The group that does it in the shortest amount of time will be the winner.</p> <p>D. If the bottles have too much water, they won't be able to be knocked over so easily. Adjust the amount of water in the bottles as needed.</p> <p>* You may create a target that will fall after being hit by the water. Be creative, so that children can enjoy the training.</p>			
<p>[IV. Conclusion (5 minutes)]</p> <p>A. When there are participants from the fire department or the community, ask them to offer their comments.</p> <p>B. Tell the children that they should teach their family members how to use fire extinguishers. They can also teach their family how to report a fire.</p> <p>C. Conclude the lesson by introducing the teacher's experience, etc. When there are participants from the community, acknowledge their participation with the children to conclude the training.</p>			
Development toward/Relationship with Other Programs			
<ul style="list-style-type: none"> · This program will take at least 20 minutes. After the training, it may be a good idea to continue with other programs. · Combine with the evacuation drill (Program 7) · Learn how to report a fire (Program 4) · Learn other methods of extinguishing a fire (Bucket Brigade) (Program 11) 			

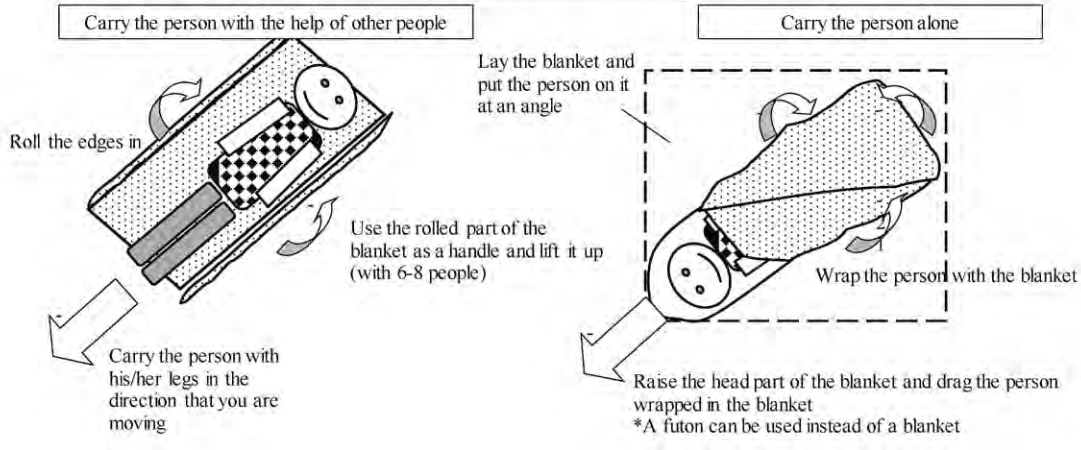
Program No.	Reference	Description No.9	
9	9-1		
Program Name			
Experiencing the Transportation of a Person Using a Blanket			
Learning Goals			
Learn that you can make a stretcher using things around you and learn how to do it			
Relationship with Other Subjects			
"Ethics" - Learn the importance of helping one another			
Timetable			
Introduction	Making a stretcher for carrying injured people	Conclusion	
5 minutes	10 minutes	5 minutes	
Procedures			
<p>[I. Introduction (5 minutes)] A. After the Great Hanshin-Awaji Earthquake, there were not a sufficient number of stretchers available. Therefore, people used things available around them, such as tatami mats, futons, blankets, and door panels, to carry injured people. B. Tell the children that, in this program, they will learn how to make stretchers using things around them and they will actually carry their classmates. C. Prepare things available in the school, such as blankets, bamboo poles or other poles, and learn that you can make stretchers out of them.</p> <p>[II. Making a stretcher/carrying people (10 minutes)] A. It may be a good idea to divide the class into groups. Prepare the necessary materials for the number of groups. A group consists of around 5 members and they will cooperate with one another to carry the injured person. (One of the members will play the role of an injured person) B. Based on Reference 9-1 (How to Make Blanket Stretchers), children will actually make stretchers by themselves. Follow the instructions to make stretchers. C. One member from each group will play the role of an injured person, and the rest of the members will carry this person using the stretcher. Give instruction on points of concern when carrying the person with a stretcher, described at the bottom of the Reference 9-1. It is important that children put the stretcher down on the ground slowly to prevent the person on the stretcher from hitting his/her head. D. To avoid any accidents during this program, the distance of carrying students with the stretchers should not be for a great distance. A dummy may also be used as the injured person. E. Have children take turns playing the role of an injured person so that all the children can experience being carried by the stretcher. F. In the end, the teacher can play the role of an injured person and be carried by the children. In this way, the children can understand that the stretcher is strong enough to carry an adult. G. If time allows, try other methods of carrying people described in Reference 9-1.</p> <p>[III. Conclusion (5 minutes)] A. Listen to other children's impressions of being the one carrying the stretcher and of being carried on it. B. Other than blankets and bamboo poles used in this lesson, many other things around us can be used in case of a disaster, such as a trash can or garbage bags to carry water for putting out a fire, and plastic wrap to wrap around a wounded part for the purpose of hemostasis. These things may be prepared and stored in an emergency evacuation bag. C. Conclude the lesson by introducing the teacher's experience, etc.</p>		<p>Learning Activities for Children</p> <ul style="list-style-type: none"> ○Learn that people used, at actual earthquakes, things available around them to carry injured people. ○Listen to a lecture on how to make a stretcher. ○Make a stretcher and carry a person with it. ○Learn other methods of carry people (Reference 9-1) ○Share impressions about making a stretcher and being carried by the stretcher with other students in the class <ul style="list-style-type: none"> "It was so shaky that I was scared. I thought that we should carry people slowly." "Making a stretcher was much easier than I thought." "I was surprised to know that a stretcher can be made using such ordinary things around us." 	
Development toward/Relationship with Other Programs			
<ul style="list-style-type: none"> · This program will take approximately 20 minutes. After the program, it may be a good idea to continue with other programs. · Combine with the evacuation drill (Program 7) · Learn how to report a fire (Program 4) · Learn methods of extinguishing a fire (Program 8,11) 			

How to make a blanket stretcher

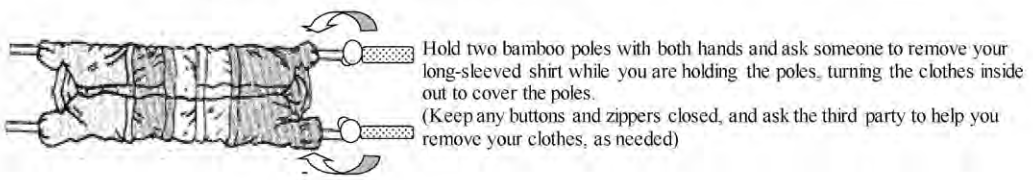
- Preparation
 - 1 blanket
 - 2 bamboo poles (stilts can be used instead)
- How to make a stretcher out of a blanket (See the picture below)



Various ways of carrying people



A stretcher made out of clothes



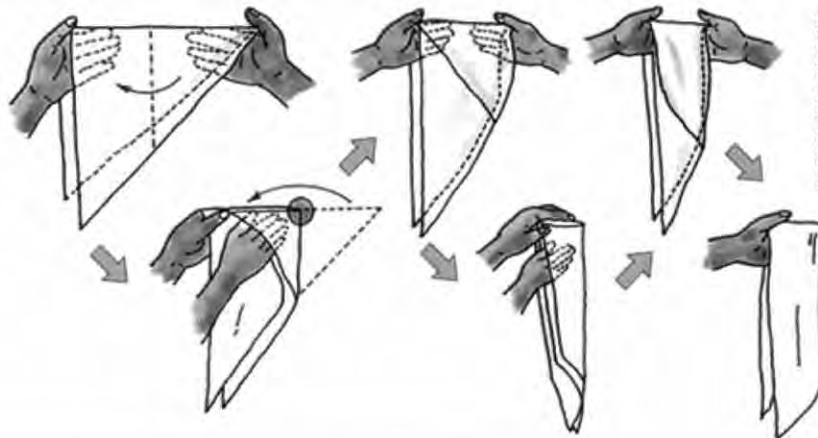
[Points to be concerned with while carrying a person]

- When carrying a person with the help of others, the person's leg should be at the front - This way, people who are carrying the person and who are closest to the person's head can see his/her face.
- Lift up slowly and put it down slowly. - Before putting it down, make sure the ground is flat underneath the blanket and lower it slowly to avoid the impact.
- When lifting it up and putting it down, lift up or put down on 3, as in "1, 2, 3!" so that you can do it at the same time. - Designate a leader to say, "1, 2, 3," and other people lift up or put down on 3. Poor coordination may tilt the blanket, which is dangerous.
- Watch your posture when lifting up! - When you lift something heavy, it can be a strain on your back. Bad posture may hurt your back.

Program No.	Reference	Description No.10	
10	10-1		
Program Name			
Let's Practice Treating Injuries			
Learning Goals			
Understand the necessity of administering first aid and learn the skills			
Relationship with Other Subjects			
"Health and Physical Education" - learn how to administer first aid			
Timetable			
Introduction	First-aid using a triangular bandage	Conclusion	
5 minutes	35 minutes	5 minutes	
Procedures			
<p>* Performing first-aid using a triangular bandage can be provided with the guidance of the rescue team. You may ask for guidance from those who know the method, such as teaching staff members or people in the community.</p> <p>[I. Introduction (5 minutes)] A. The basic rule of responding to an emergency is to report it as quickly as possible and administer first aid immediately. Tell the children that it is important that they inform an adult immediately when they encounter an emergency situation. B. Tell the children that the first-aid method that they will learn today will be useful in case of an emergency. When they actually administer first aid, it is important that they avoid touching other people's blood.</p> <p>[II. Training on how to administer first-aid using a triangular bandage (35 minutes)] A. Based on Reference 10-1 (First-aid using a triangular bandage), children will practice how to do it by actually using the bandages. First, practice "How to Fold a Triangular Bandage." B. Then try some of the methods of using a triangular bandage described in the Reference. Choose some methods, according to your schedule. There are 5 methods of using a triangular bandage to wrap the different body parts. C. Divide into pairs in the class and practice it on each other. Use a "reef knot" as a basic way of tying a bandage (see "Rope Knot Tying Training" in the part of "Community Emergency Drill Programs"). In this program, focus on how to use a bandage and it isn't necessary to mention too much about the tying. <Hint for the program> · Play a game to practice some methods - once children learn some methods of using a bandage to wrap the different body parts, have them play a game to see which pair can wrap the body part the fastest and in the most accurate manner. Choose two methods from those that the children learned. When the teacher says, "Start," each pair will start wrapping their partner's body part using a triangular bandage. When a pair completes wrapping, they come in front of the teacher and have him/her check their tying. If it is too loose and comes off easily, they have to do it again. The first 10 pairs who successfully tie their slings are the winners. This way, children will enjoy the training more.</p> <p>[III. Conclusion (5 minutes)] Think what you would do if you didn't have a triangular bandage. (Use a bandage, towel, or a handkerchief) A. Tell the children that we can use things around us in case of an emergency, when available supplies are limited. We can use plastic wrap for hemostasis, and a magazine or an umbrella for a broken arm or leg, in place of a splint. B. Tell children that it would be useful in case of an emergency if they keep a triangular bandage, towel or plastic wrap in their evacuation bag. C. Conclude the lesson by introducing the teacher's experience, etc.</p>		<p>Learning Activities for Children</p> <p>○Learn the necessity of administering first aid</p> <p>○Learn how to use a triangular bandage to wrap the different body parts</p> <ul style="list-style-type: none"> · How to fold a triangular bandage · Bandage the head · Bandage the forehead · Bandage the arm or leg · Cover the head (without folding the bandage) · Cover the hand or foot <p>○Learn about useful things other than a triangular bandage</p> <ul style="list-style-type: none"> · Use a handkerchief, towel, or plastic wrap, etc. instead of a bandage · Use a magazine or an umbrella, etc. instead of a splint 	
Development toward/Relationship with Other Programs			
· Learn how to call an ambulance for an injury using the Emergency Reporting Drill (Program 4).			

First-aid using a triangular bandage

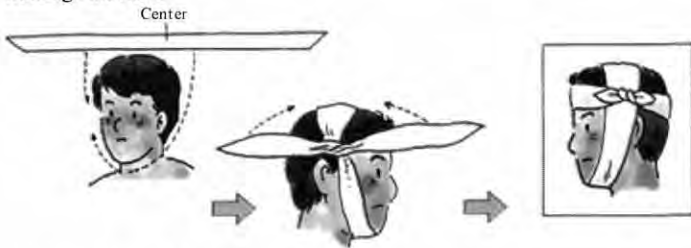
1. How to fold a triangular bandage



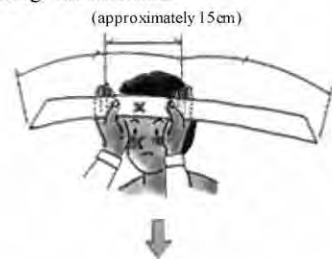
Keep a triangular bandage clean.
Do not fold it on the ground.
Fold it while holding it. Try!

2. Various ways of using a triangular bandage (by folding it)

Bandage the head



Bandage the forehead



Bandage the arm or leg

Hold the bandage on this position



Make a knot near the elbow.



When making a knot, avoid the wound.

3. Various ways of using a triangular bandage (without folding it)

Cover the head



Cover the hand or foot



A triangular bandage is a useful material that can be used by folding or without folding. Keep one handy at home!

Program No.	Reference	Description No.11	
11	11-1	Program Name	
Showdown! Bucket Brigades			
Learning Goals			
Learn the skills of extinguishing a fire and the importance of working together			
Relationship with Other Subjects			
"Ethics" - Learn the importance of helping one another			
Timetable			
Introduction	Bucket Relay	Conclusion	
5 minutes	20 minutes	5 minutes	
Procedures			
<p>* In this lesson, children will learn how to extinguish a fire by having a Bucket Relay Race using an ordinary bucket. Ask people in the community for their cooperation.</p> <p>[Preliminary preparation]</p> <ul style="list-style-type: none"> Prepare a water tank to be the water source, and another that will be used as a receptacle. The fire department or the local government may have water tanks available for educational purposes. Inquire about them. <p>[I. Introduction (5 minutes)]</p> <p>A. The Great Hanshin-Awaji Earthquake caused many fires in Kobe City (54 fires occurred within the first 14 minutes after the earthquake). It was impossible to fight all of them by the fire department. Tell the children that the citizens of the disaster areas extinguished fires utilizing the method of the Bucket Relay, using buckets and trash bins.</p> <p>B. As a preliminary study, children can learn about the damage from past earthquakes. This will improve their understanding of the importance of the Bucket Relay.</p> <p>[II. Bucket Relay (20 minutes)]</p> <p>In order to have children understand the meaning of the Bucket Relay, tell them to carry water using a bucket to a certain point without giving any instructions. (They will learn it is not efficient.)</p> <p>A. Make a line with a group of people, e.g. all the students in the school or in the class. Based on Reference 11-1 (Method of the Bucket Relay), make a line with a group of people.</p> <p>B. Divide the entire group into two and have them compete with each other to see which team can carry water quicker. (Prepare big water tanks or use garbage bins as receptacles. The team that can fill their receptacle first, will be the winner.) This way, the children can enjoy the program.</p> <p>C. Before the race, tell the children to exercise the following precautions: don't swing the bucket, don't pour too much water into the bucket, and don't remove your hand from the bucket before handing it to the next person. A few races can be held according to the schedule.</p> <p>[III. Conclusion (5 minutes)]</p> <p>A. After two teams have a competition, congratulate the winners. When people in the community or staff members of the fire department take part in the program, ask them to share their comments. Ask the principal to give his comments as well.</p> <p>B. When there are participants from the community, acknowledge their participation to conclude the training.</p>		<p>Learning Activities for Children</p> <ul style="list-style-type: none"> Learn about past cases (earthquakes in Japan) Learn the meaning of the Bucket Relay and the method used Having a Bucket Relay Race (Utilizing Reference 11-1) Share their impressions 	
Development toward/Relationship with Other Programs			
<ul style="list-style-type: none"> This program (if it is only the Bucket Relay) will take approximately 20 minutes. After the program, it may be a good idea to continue with other programs. Combine with the evacuation drill (Program 7) Learn how to report a fire (Program 4) Learn other methods of extinguishing a fire (fire extinguisher) (Program 8) 			

Method of the Bucket Relay

How to line up for the Bucket Relay

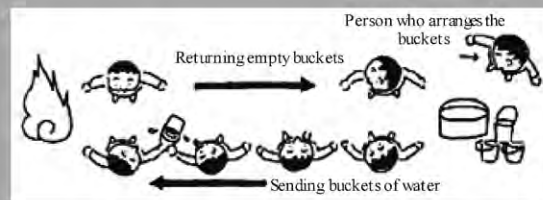
Note: Each line arrangement has advantages and disadvantages. Select a suitable arrangement in accordance with the number of participants and the type of participants (such as experienced participants or not).

(i) One Line Relay

This is suitable when there are a small number of people.

The participants stand in one line about 1.5 meters apart, and pass buckets of water from the water source to the fire source. About one fifth of the numbers of people in the line are allocated to take the empty buckets back to the water source.

The downside of this method is that people cannot see what is happening behind them. If necessary, allocate personnel who will watch out for the safety of the participants (for example when a line is made across a road).

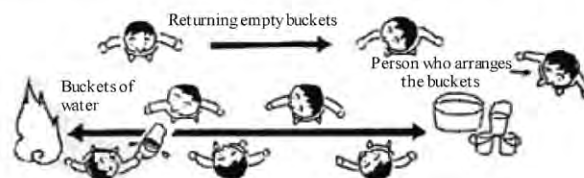


(ii) Relay in a Line Where People Face Each Other

This is a modified version of the one line relay.

People stand in one line. Every odd numbered person turns 180 degrees so that they are facing in the opposite direction to the even numbered people. The odd numbered people take two steps backwards. This makes a set of people who can see between the gaps in the people facing them. They can then check to see if there are any dangers behind the people facing them.

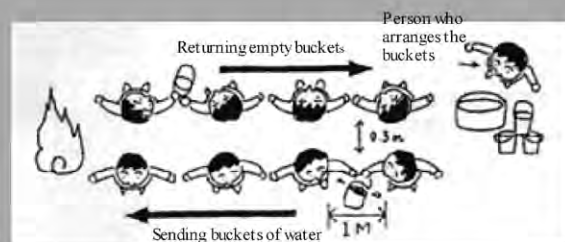
The downside of this system is that it takes longer to arrange people into position.



(iii) Relay in Two Lines

This is a suitable method when there are many participants.

The people in one line pass along the buckets of water and the people in the other line pass the empty buckets back to the water source. The two lines stand with their backs to each other, so that they can conduct a bucket brigade while watching out for each other's backs (if they face each other, it will be difficult to check safety because they block each other's view). Suitable spacing is about 1 meter. If there are not enough people, allocate members with about 1 meter spacing on the sending line and allocate the rest to the returning the empty bucket line.



(Note) The spacing is just a rough guide. Adjust the spaces between people according to their body size.

(Note) Instruct not put too much water in the bucket (50-60%).

**Community Emergency Drill Programs
and
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