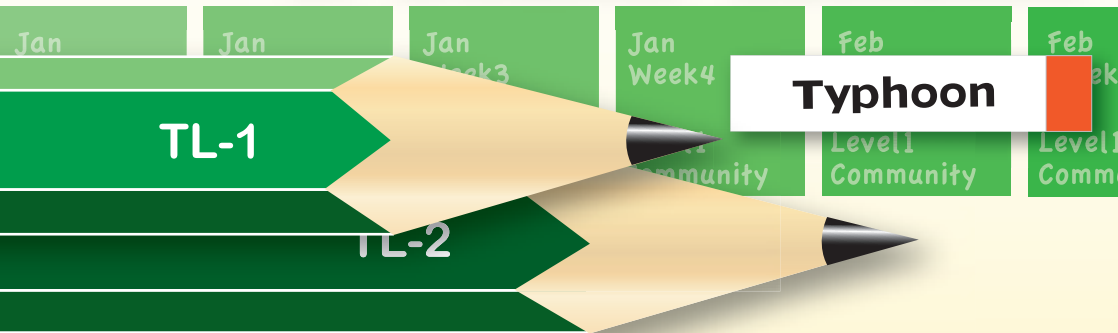


1-2-3

of Disaster Education



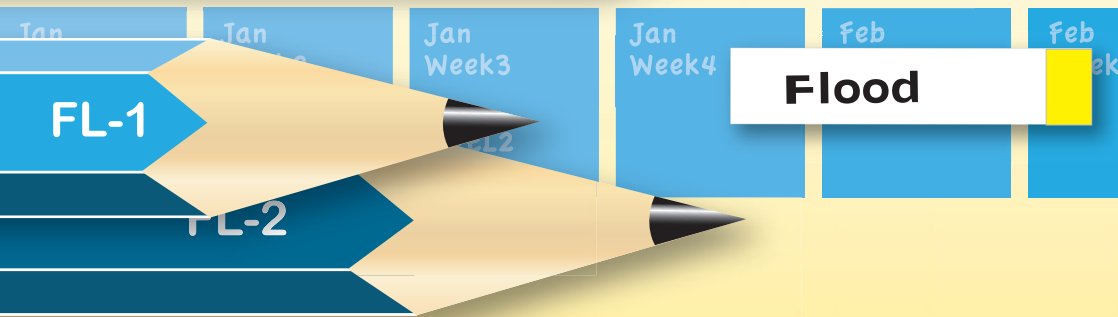
Jan Jan Jan Week3 Jan Week4 Feb Feb

TL-1 **TL-2**

Typhoon

Level1 Community Level1 Comm

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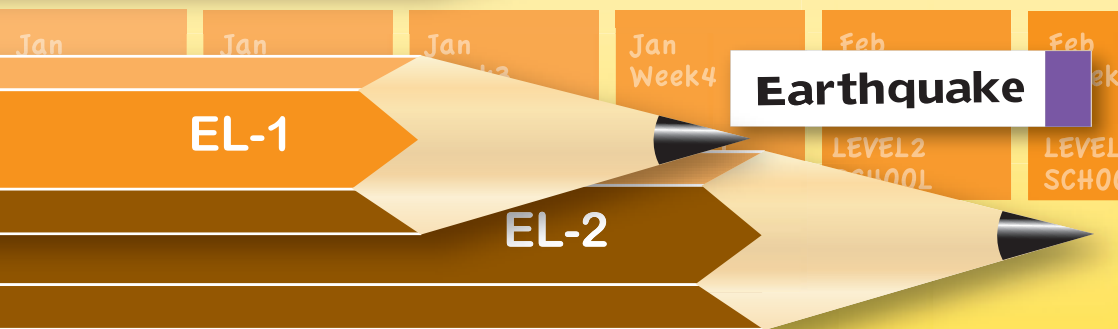


Jan Jan Jan Week3 Jan Week4 Feb Feb

FL-1 **FL-2**

Flood

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Jan Jan Jan Week3 Jan Week4 Feb Feb

EL-1 **EL-2**

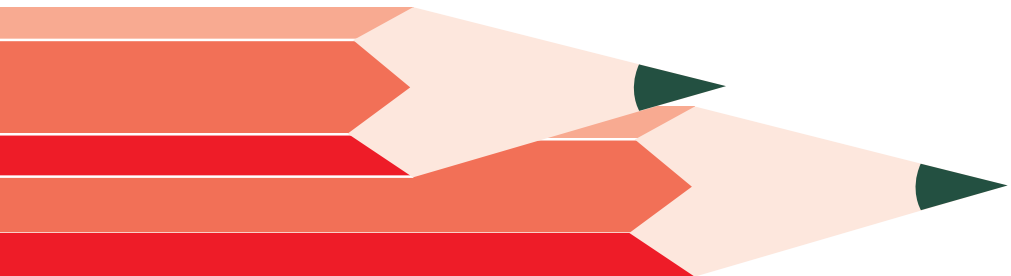
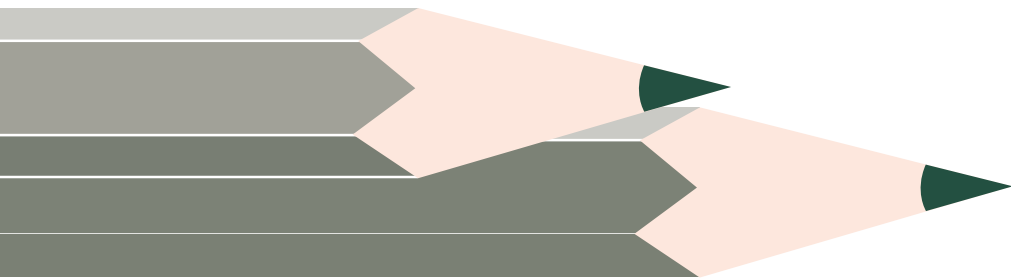
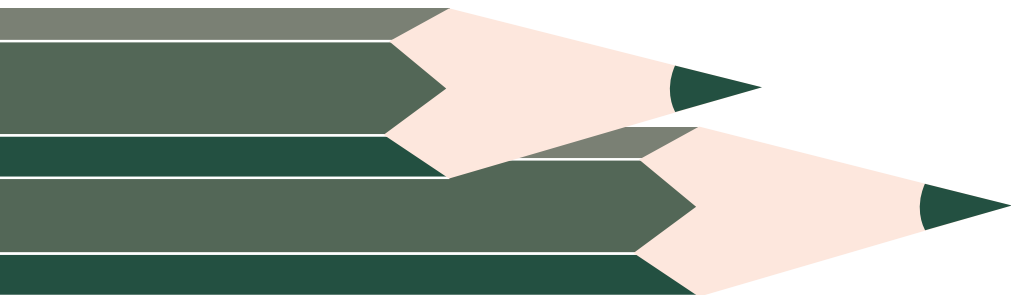
Earthquake

LEVEL2 SCHOOL LEVEL SCHOOL

This graphic features a grid of orange boxes with labels like 'Jan', 'Jan Week3', 'Jan Week4', 'Feb', and 'Feb'. Two large yellow pencils are positioned diagonally across the grid. The top pencil is labeled 'EL-1' and the bottom pencil is labeled 'EL-2'. A white box with the word 'Earthquake' and a purple square is on the right. Below the grid, the text 'LEVEL2 SCHOOL' and 'LEVEL SCHOOL' is visible.

1-2-3

of Disaster Education



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“The European Union is made up of 27 Member States who have decided to gradually link together their know-how, resources, and destinies. Together, during a period of enlargement of 50 years, they have built a zone of stability, democracy, and sustainable development whilst maintaining cultural diversity, tolerance, and individual freedoms. The European Union is committed to sharing its achievements and its values with countries and peoples beyond its borders.”

Disclaimer

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Takayuki Moriyama

Preface

Education is the key to development. When we talk about mainstreaming disaster risk reduction into development practices, much has been discussed on how to bring this to national and local development plans and policies. While development plans are important to disaster risk reduction, real mainstreaming begins with education. Disaster reduction is ultimately linked to human behavior. The national planning, local government planning, civil society participation, interventions of donors and international agencies are all important to create the enabling atmosphere. However, within that enabling atmosphere, it is of utmost importance to generate activities in the individual level, family level, and community level. To do this, education is the first and foremost vehicle.

Two key issues in Disaster Risk Reduction Education (in this publication, it is mentioned as Disaster Education) are important: Disaster education should not be an event (like an evacuation drill), it should be a process. Disaster education should break the school boundary, and be linked to the community and family.

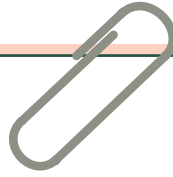
The importance of linking school education with family and community education is gradually recognized and currently practiced in some countries, engaging students in more pro-active partnership with the neighborhood. However, there are few tools and workbooks available for this type of disaster education. This workbook makes a modest attempt to provide a rather comprehensive disaster education program linking the school, family, and community. The 1-2-3 Concept is innovative and original, which has been put forward by a team of researchers in Kyoto University in cooperation with NIED/EDM (Earthquake Disaster Mitigation Research Center, National Research Institute for Earth Science and Disaster Prevention).

Needless to say that the production of this workbook is not the ultimate objective of our endeavor. The actual fruits will be through actions, when the students and teachers of different countries will use this workbook and take specific risk reduction measures. They are the best judges, and we leave the evaluation of the workbook to them. We will be pleased if this workbook makes some value addition to the disaster education process, which is non-ending.

Rajib Shaw
Kyoto University

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1
***Read Me
First***



Introduction



Are you living in a disaster prone area?

Have you taken disaster education in school, in your house, or in your community?

Do you know what a disaster is?

Do you know what you should do to contribute to disaster reduction?

Disaster education is effective not only for you to save your own life, but also for you and your community to live safely and comfortably. The purpose of this book is to guide yourself in taking measures to reduce the impacts of future disasters as well as in getting knowledge of disasters and disaster reduction. The concept of this book is 1-2-3 as shown below.

This book provides **1 year education program.**

This book provides **2 levels of one-year education program.**

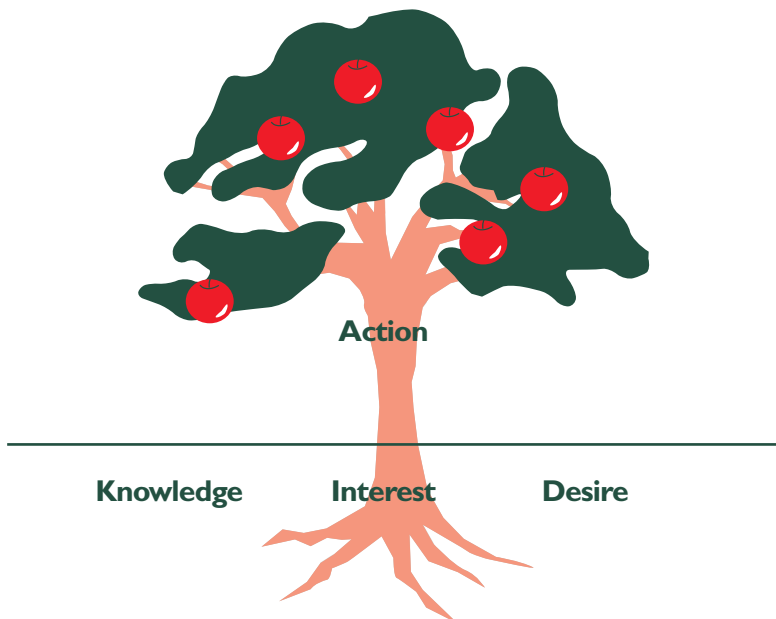
This book provides **3 kinds of disaster education programs.**

Hazards targeted in this book are Typhoon, Flood, and Earthquake. Education programs are divided into priority programs and optional programs. If you have time and interest, please do optional programs in addition to priority programs. This book provides you with opportunities of disaster education in school, house, and community. Please start education programs and learn disaster management with your friends, teachers, family, and community. This workbook is based on the following basic concepts.

Basic Concepts

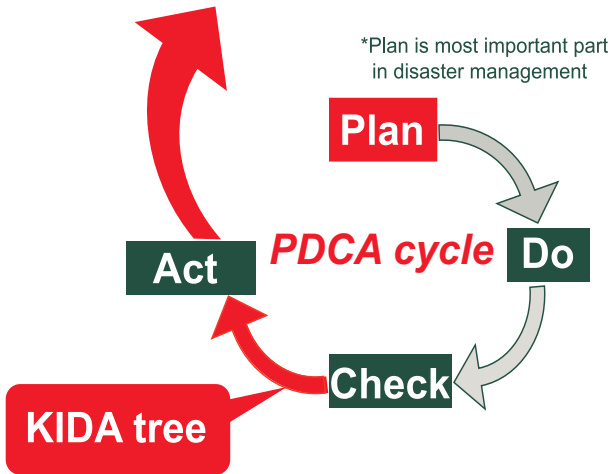
KIDA Tree Model

The ultimate goal of disaster education is that people take appropriate measures before and when a disaster occurs. To achieve it, this book propose the KIDA Tree model. KIDA was developed based on the AIDMA model. The AIDMA model has been used in the field of advertising to consider the process from consumer giving attention to products to buying them. AIDMA consists of Attention, Interest, Desire, Memory, and Action. Disaster reduction requires people to have appropriate knowledge and take action. KIDA is knowledge, interest, desire, and action. Knowledge, interest, and desire are necessary to promote to take action and actions are significant outputs of disaster education. The programs in this book are classified to K, I, D, or A, and you can learn disaster management step-by-step.



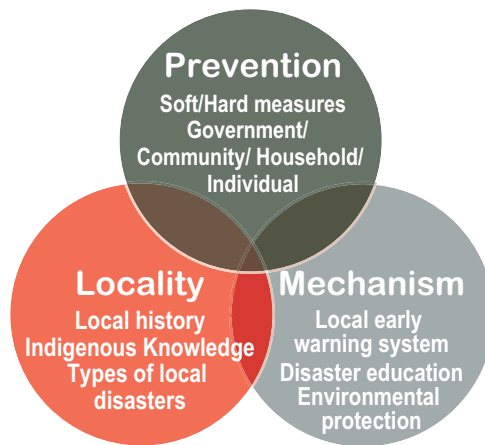
PDCA Cycle

Plan, Do, Check, and Act (PDCA) are basic items of management. For planning, we need to understand our situation and to take some information. This 1-2-3 Disaster Education Book starts with “Check”, and this book focuses on the “Check” to “Act” process. The KIDA tree is the detailed process between “Check” and “Act”. Good/Serious “Check” and sustainable “Act” are fundamental items for planning. The goal of disaster management is making sustainable actions. Therefore planning is the most important part. In the KIDA tree, the actions are the fruits. To produce fruits, the tree has to get much energy. Knowledge, interest, and desire provide the energy for growing fruits. For planning, we should have knowledge and interest on disasters, and feel a desire for action.

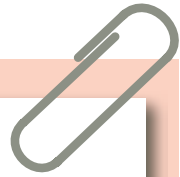


Elements of Disaster Preparedness

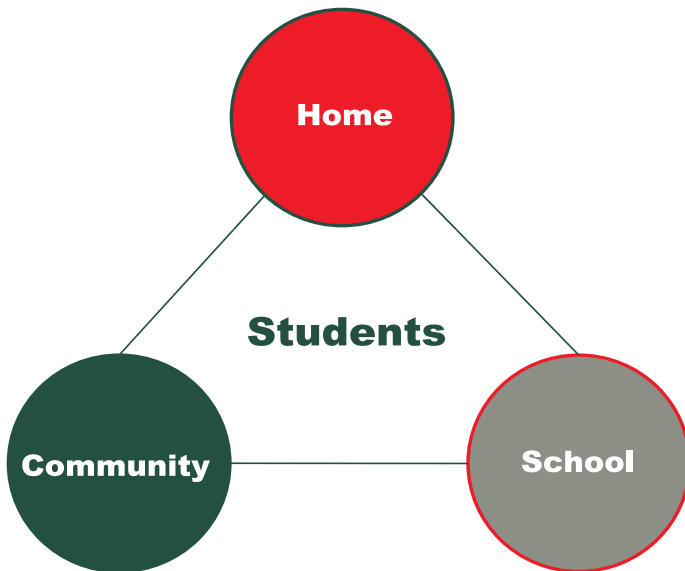
For the prevention of disasters, we should understand disaster mechanisms and locality. We can learn about locality from the community and mechanism from school lectures.



Stakeholders and Activity Sites

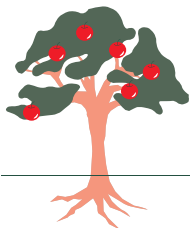
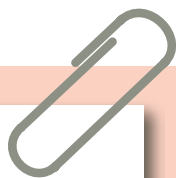


The home and the community are important units of disaster management. Individual safety and household safety are fundamental to community safety. 1-2-3 of Disaster Education's main users are the students. This book's activity sites are the school, home, and the community. The activities in the workbook are supported by the school teacher, community people, and family members. Cross checks and comments are important elements of the workbook.

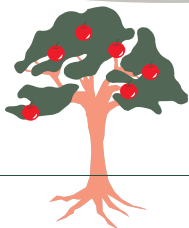


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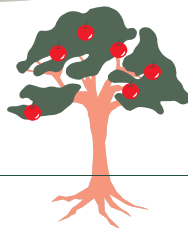
Linkages



TYPHOON TREE

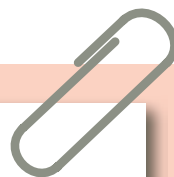


FLOOD TREE



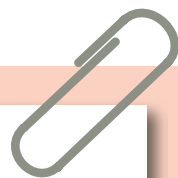
EARTHQUAKE TREE

Typhoon Preparedness Level One



Activities	Mechanism	Prevention	Locality
Short Lecture, Film Showing, and Open Forum	Disaster Education	Individual	
Puppet Show: Roles and Responsibilities of Different Persons in Typhoon Preparedness	Disaster Education	Individual	
Familiarization of Early Warning Systems	Local Early Warning System	Community	
Identifying and Listing Most Vulnerable Households		Community	
Family Meeting: Creating an Emergency Plan		Household	
Collecting Indigenous Knowledge on Typhoon Preparedness	Disaster Education	Individual + Community	Indigenous Knowledge
Preparing and Updating the Emergency Supply Kit		Household	
Identifying Flooded Areas and Marking Flood Levels		Community	Local History of Flooding

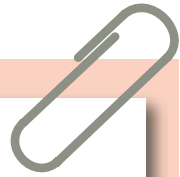
Typhoon Preparedness Level Two



Activities	Mechanism	Prevention	Locality
Play Acting: What to Do in Different Typhoon Scenarios	Disaster Education	Individual	
Photography, Drawing, and Essay Contest	Disaster Education	Individual	
Collecting Typhoon Stories: Listening to Voices of Experience		Individual + Community	Local History of Typhoons
Identifying and Fortifying the Safest Room in the House		Household	
Enhancing our Natural Buffers Against Typhoons	Environmental Protection	Community + Government	
Community Mapping: Identifying Hazard-prone Areas, Evacuation Sites, and Escape Routes		Community	Local History of Typhoons
Securing and Fastening Things That can be Blown Away		Household	
Clearing Debris and Trash from Drainage Areas		Community	

Typhoon Preparedness Tree

Level One



ACTIONS

TL1-G. Preparing and Updating the Emergency Supply Kit

TL1-H. Identifying Flooded Areas and Marking Flood Levels

KNOWLEDGE

TL1-A. Short Lecture, Film Showing, and Open Forum

TL1-B. Puppet Show: Roles and Responsibilities of Different Persons in Typhoon Preparedness

INTEREST

TL1-C. Familiarization of Early Warning Systems

TL1-D. Identifying and Listing Most Vulnerable Households

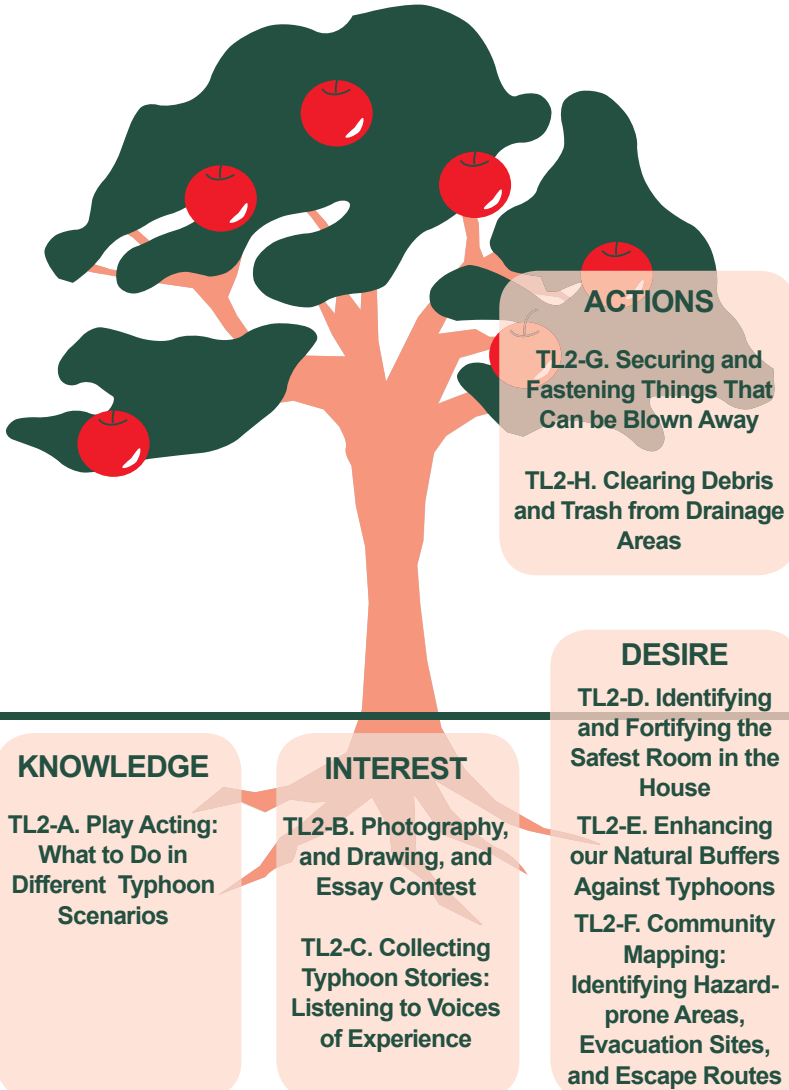
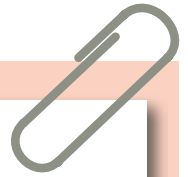
DESIRE

TL1-E. Family Meeting: Creating an Emergency Plan

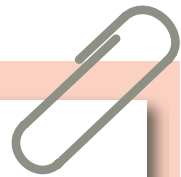
TL1-F. Collecting Indigenous Knowledge on Typhoon Preparedness

Typhoon Preparedness Tree

Level Two

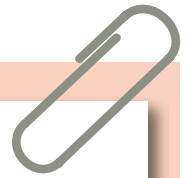


Flood Preparedness Level One



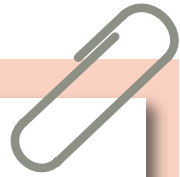
Activities	Mechanism	Prevention	Locality
Conducting First-Aid Training		Home + Community	
Conducting Experiment Sessions	Understanding the Local Community		Geography of Community
Family Chats on Past Flood Experiences		Home + Community	IK, Past Flood Incidents
Understanding the Flood Prevention Support in Your Community	Understanding the Local Warning System	Individual + Community	Familiarization with Local Warning System
Community Interaction		Individual + Community	Indigenous Knowledge, Past Flood Incidents
Creating a Checklist and Performing Monthly Checks		Home	

Flood Preparedness Level Two



Activities	Mechanism	Prevention	Locality
Short Lecture and Video Watching	Gaining Knowledge from Others Experience	Individual	
Participating in Post-Flood Activities such as Clearing of Debris		Community	Vulnerability of Local Community
Creating an Emergency Escape Plan		Home	Geography, Escape Routes Near Home
Community Mapping		Home + Community	Identifying High Risk as well as Safe Sites, Understanding Geography of Community, Discovering Escape Routes
Drawing or Photography Contest		Home + Community	Identifying Risks in the Community. Identifying Problems or Strengths in the Community
Ensuring that Family Members, Neighbors are Warned	Understand Local Warning System	Individual + Home + Community	Familiarization with Local Warning System
Ensuring that Electrical Appliances are Unplugged		Home	

Flood Preparedness Tree Level One



ACTIONS

FL1-F. Creating a Checklist and Performing Monthly Checks

KNOWLEDGE

FL1-A. Conducting First-Aid Training

FL1-B. Conducting Experiment Sessions

INTEREST

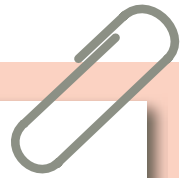
FL1-C. Family Chats on Past Flood Experiences

FL1-D. Understanding the Flood Prevention Support in Your Community

DESIRE

FL1-E. Community Interaction

Flood Preparedness Tree Level Two



ACTIONS

FL2-F. Ensuring that Family Members, Neighbors are Warned

FL2-G. Ensuring that Electrical Appliances are Unplugged

KNOWLEDGE

FL2-A. Short Lecture and Video-Watching

INTEREST

FL2-B. Participating in Post-Flood Activities such as Clearing of Debris

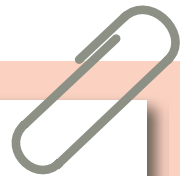
DESIRE

FL2-C. Creating an Emergency Escape Plan

FL2-D. Community Mapping

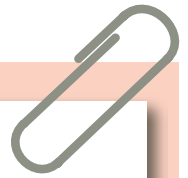
FL2-E. Drawing or Photography Contest

Earthquake Preparedness Level One



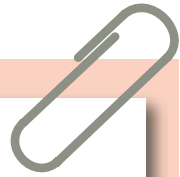
Activities	Mechanism	Prevention	Locality
Short Lecture and Movie Watching	Knowledge from Others' Experience	Individual	
Reading Newspapers and Discussion with Parents		Individual+ Home	Local History
Drawing and Essay Competition		Individual	
Town Watching		Individual + Community	Geography of Community
Group Diary		Individual	Local History
Neighborhood Meeting		Individual + Community	Indigenous Knowledge
Mapping Your House and Preparing an Emergency Supply Kit		Home	

Earthquake Preparedness Level Two



Activities	Mechanism	Prevention	Locality
Earthquake Evacuation Drill		Individual	
Family Outdoor Cooking		Individual+ Home	Indigenous knowledge
Survival / Disaster Preparedness Sports Meet		Individual + Community	Indigenous knowledge
Organizing and Acting in a Play		Individual + Community	Local history
Neighborhood Survey		Individual + Community	Local history + Indigenous knowledge
Family Conversation and Household Checklist		Individual+ Home	
Arranging and Securing Furniture for Safety		Individual+ Home	

Earthquake Preparedness Tree Level One



ACTIONS

EL1-G. Mapping Your House and Preparing an Emergency Supply Kit

KNOWLEDGE

EL1-A. Short Lecture and Movie Watching

EL1-B. Reading the Newspaper and Discussion with Parents

INTEREST

EL1-C. Drawing and Essay Competition

EL1-D. Town Watching

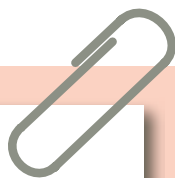
EL1-E. Group Diary

DESIRE

EL1-F. Neighborhood Meeting

Earthquake Preparedness Tree

Level Two



ACTIONS

EL2-F. Family Conversation and Household Checklist

EL2-G. Arranging and Securing Furniture for Safety

KNOWLEDGE

EL2-A. Earthquake Evacuation Drill

INTEREST

EL2-B. Family Outdoor Cooking

EL2-C. Survival / Disaster Preparedness Sports Meet

DESIRE

EL2-D. Organizing and Acting in a Play

EL2-E. Neighborhood Survey



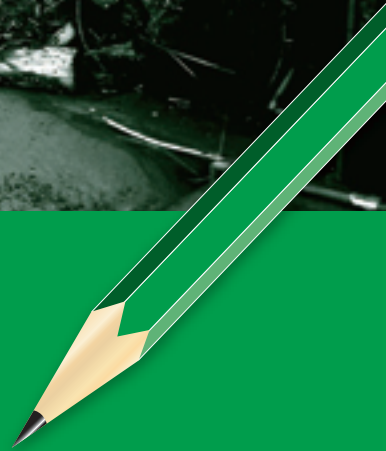


Workbook 1: Prepare Before The Typhoon





Workbook 1: Prepare Before The Typhoon



Introduction

Surviving a typhoon is everyone's responsibility. Making sure our household members, our students and teachers, and our neighbors will survive the storm is a year-round task. It is not a task that can be done in just 24 hours, so we should start making preparations in advance! Our strategy should be to maintain a state of constant preparedness for typhoons.

1. What are typhoons?

Typhoons, also called tropical cyclones and hurricanes, are powerful storms generated over tropical or sub-tropical waters. Typhoons out at sea cause large waves, heavy rain, and high winds, disrupting maritime travel and, at times, causing ships to sink, like what happened to MV Princess of the Stars in the Philippines during Typhoon Fengshen (2008). More than 800 people died in the

accident. On land, strong winds can damage or destroy vehicles, buildings, bridges, and other outside objects, turning loose debris into deadly flying projectiles. Typhoons can cause catastrophic damages, like what we have seen in the case of Hurricane Katrina (2005) in the US and Cyclone Nargis (2008) in Myanmar.

2. What is the purpose of this workbook?

This workbook describes the educational program for typhoons. It contains activities that students can perform to help themselves, their household, their school, and their community prepare for typhoons. It includes information about typhoon hazards and risks and safety tips. It can be used by students to initiate discussion on what to do before, during, and after a typhoon.

The goal of this workbook is to

make students contribute to and actively take part in increasing typhoon disaster awareness and reducing losses and suffering caused by typhoons, thereby making themselves and their communities safer. Hopefully this workbook can help promote understanding of the fact that disaster preparedness is not accomplished overnight, is never complete, and is a combination of individual and collective efforts.

Program Structure

**QUESTIONNAIRE
MY TYPHOON
CALENDAR**

To find out how much the students know about their community and to plan their activities.

SELECT COURSE

LEVEL ONE

LEVEL TWO

※ One has to complete L1 before L2

Home

Community

School

**OUTLINE OF THE
COURSES**

Intervals of activities:

- Quarterly
- During the Typhoon Season
- Annually

Type of activities:

- Priority
- Optional



Before we begin, do you know...?

Q1. When is the typhoon season in your community? Shade the months corresponding to Pre-Typhoon (PT) and Typhoon (T) period.

PT	J	F	M	A	M	J	J	A	S	O	N	D
T	J	F	M	A	M	J	J	A	S	O	N	D

Please use the information above in scheduling the activities in this workbook in the Activities Planner on page 31 and 57.

Q2. On the average, how many typhoons visit your community every year?

Q3. Where do you live?

- On a mountain
- At the foot of a mountain
- Near a body of water or in a coastal area (sea, lake, river)
- Below a dam
- On an elevated plain (flat land)
- On a low-lying plain (frequently-flooded area)

Knowing the local conditions of where you live can help in identifying appropriate responses to risks posed by typhoons. Customize your workbook answers to what is appropriate for your specific community.

Q4. Have you experienced the following before?

- Destruction of property due to strong winds
- Flooding
- Temporary loss of electricity or water supply due to a typhoon
- Landslide
- Storm surge
- Tornado

If you already have first-hand experiences of typhoon-related disasters, then you will find it easy to think of ways on how to prevent disasters from happening again in the future. If you have no experience yet, be thankful that you have been lucky to avoid the inconveniences and hardships that others have experienced. Listen to and read about stories of others so that you can learn from them.

Q5. Have you had any typhoon-preparedness training before?

YES NO

If you answer YES, tell your teacher and maybe you can volunteer to lead your classmates in the group activities. Share what you had learned from your training.

Date Completed	Comments	Checked by

Before we begin, do you know...?



Level One

Activities and Guidelines



Level One

		During the Typhoon Season		
		Quarterly	Annually	
Priority Activities Think of two Typhoon-preparedness activities that you can do. (Refer to TL1-I and TL1-J)	Home	TL1-E. Family Meeting: Creating an Emergency Plan		
	Community	TL1-C. Familiarization of Early Warning Systems	TL1-D. Identifying and Listing Most Vulnerable Households	
	School		TL1-A. Short Lecture, Film Showing, and Open Forum	
	Home	TL1-G. Preparing and Updating the Emergency Supply Kit		
	Community		TL1-F. Collecting Indigenous Knowledge on Typhoon Preparedness	TL1-H. Identifying Flooded Areas and Marking Flood Levels
	School			TL1-B. Puppet Show: Roles and Responsibilities of Different Persons in Typhoon Preparedness

Activities Planner for Level One

- ★ Identify and mark the pre-typhoon and typhoon season in your community on the calendar.
- ★ Plan your activities and mark them on the calendar.
- ★ Please consult your teacher and parents on the schedule. You may use the activity codes (example: TL1-A for “Short Lecture, Film Showing, and Open Forum”).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Week 1												
Week 2												
Week 3												
Week 4												
Week 5												

Level	Activity Site	Frequency	Activity Type
1	School	Annually	Priority

RATIONALE

Movies can be excellent educational materials. If students watch films, ask questions, and share their own stories, then students will know how to handle emergencies better. In a way,

students can prepare for typhoons by seeing how movie stars survived them (or perished in them).

PROCEDURE

Choose a movie that you would like to watch. The teacher should prepare a short lecture as an introduction to the movie. The lecture can be about the frequency and severity of typhoons, places likely to be affected by typhoons, length of the typhoon season, cost of typhoon disasters, recent typhoon disasters, etc.

After watching the movie or video clips, discuss how students can help their household, school, and community in preparing for typhoons. Ask for volunteers who would like to share to the class their own typhoon experience.

Suggested movies:

Project Storm Story

Plot: This is about the oral history of hurricane survivors in the US. Experience is the greatest teacher. Hear six first-hand accounts of hurricane survivors and learn just how bad hurricanes can truly be.

The Day After Tomorrow

Plot: Across the world, violent weather causes mass destruction and chaos. There are hailstorms and tornadoes.

A Perfect Storm

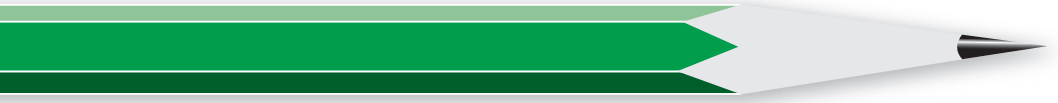
Plot: After debating whether to sail through the building storm or to wait it out, the crew of a fishing boat decides to risk the storm.

DURATION

Around 1 to 2 hours per session.

TL1

A Short Lecture, Film Showing, and Open Forum



Lessons Learned

	MOVIE1	MOVIE2	MOVIE3	MOVIE4
Date				
Movie Title				
What is the movie about?				
Where did the story take place?				
Who are the characters and how did they survive the typhoon?				
How could the characters have prevented losses of lives and destruction of properties?				
What is the most important lesson you learned from the movie?				

Can you suggest other typhoon-themed movies?

1. _____
2. _____
3. _____

Date Completed	Comments	Checked by

TL1

A

Short Lecture, Film Showing, and Open Forum

TL1-B Puppet Show: Roles and Responsibilities of

Level	Activity Site	Frequency	Activity Type
1	School	Annually	Optional

RATIONALE

Playing “Let’s pretend...” games with students helps them work out “what if” situations. The focus question for this activity is: Who are the people most responsible for your community’s preparedness and recovery?

Puppets can entertain and educate. Similar to drama and storytelling, puppets are art forms that can also teach and persuade. Lessons learned in this way are more likely to be remembered and to become part of our solid stock of knowledge.

TL1

PROCEDURE

Determine which individuals actively participate in the community’s disaster preparedness and emergency response. Add individuals who might be missing from the list on the next page.

Assign each student a character by drawing lots. The students should prepare a puppet using readily available materials like socks, dolls, etc. They should also prepare a speech or dialogue for their assigned puppet. They should work together in smaller groups to develop a plan

to respond to a scenario assigned to their group.



DURATION

Around 1 hour to prepare the puppet and speech and another 1 hour for all the students to present their assigned character

Puppet Show: Roles and Responsibilities of Different Persons



Puppets	Student Assigned	Responsibilities in Disaster Preparedness and Emergency Response
Community Head		
Household Head		
Weatherman		
Newscaster		
Teacher		
Student		
Doctor		
Nurse		
Road Engineer		
Social Worker		
Red Cross Volunteer		
Neighbor		
Rescue Worker		

TL1

B
Puppet Show: Roles and Responsibilities of Different Persons

Here are possible scenarios that students can act out:

- The weather bureau has just announced that a super typhoon is coming in three days. What preparations are necessary?
- The community is flooded. People are forced to stay on the roof of their house. They are running low on water and food. How do you deliver relief goods?
- There are three people with injuries but the ambulance cannot pass through the flooded streets. How do you alleviate the suffering of these individuals?
- As many as 10 people are missing. What do you do?
- There is a landslide near the foot of a hill causing roads to be impassable. Who should clear the road?
- Opportunistic looters are stealing from evacuated houses.

Date Completed	Comments	Checked by

Level	Activity Site	Frequency	Activity Type
1	Community	Quarterly	Priority

RATIONALE

UN defines early warning as “the provision of timely and effective information, through identified institutions, that allows individuals exposed to a hazard to take action to avoid or reduce their risk and prepare for effective response”.

It is said that if an early warning system (EWS) had been in place when the tsunami of December

2004 struck the Indian Ocean region, many thousands of lives could have been saved. That catastrophe was a wake-up call about the role early warning can play in avoiding and reducing the human and physical impacts of natural hazards.

TL1

PROCEDURE

Early warning systems differ at different locations. Let us now examine the early warning system employed by your community.

1. Who is in-charge of the early warning system for typhoons and floods in your area?

2. Does your community use any of the following?

- Siren
- Church bells
- Drums
- Loud voice coming from a speaker
- Volunteers knocking on each house
- Radio or TV announcements
- Others:

DURATION

Around 2 hours per session (conducting the survey and at the same time sharing information about the EWS).

C Familiarization of Early Warning System



**3. Are people in the community aware of the early warning system?
How can you ensure that people know how to respond to warnings?**

Please conduct a survey for four quarters. Select respondents from different areas in the community. Keep your list as you will be needing it the whole year.

	Q1	Q2	Q3	Q4
Total Number of People Surveyed (A)				
Number of People Aware of the EWS (B)				
Percentage of People Aware of the EWS (B/A)				

TL1

C

Familiarization of Early Warning System

From Q1 to Q4, is there an improvement in the percentage of people aware of the early warning system in your community?

4. How do you think your community's early warning system can be improved?

Date Completed	Comments	Checked by

Level	Activity Site	Frequency	Activity Type
1	Community	Annually	Priority

RATIONALE

Communities might have to develop an action plan for households who would surely need assistance whenever there is a typhoon. Elderly people are especially susceptible to the effects of extreme weather. People

who are frail or disabled (either mentally or physically) may need special assistance from family members, friends, or neighbors.

TL1

PROCEDURE

D Talk to your neighbors and help them conduct an ability self-assessment so they will know what they can and cannot do during a typhoon. Make a list of households that would require assistance during a typhoon. Share your list with community leaders.

Create a support network. Talk to other community members about

how you can work together during an emergency. Decide who will check on elderly or disabled neighbors. Find out if anyone has specialized equipment like a power generator, or expertise such as medical knowledge, that might help in a crisis.

DURATION

Around half a day per session.



D Identifying and Listing the Most vulnerable Households in the Community

List of Vulnerable Households

Household	Why They Are Vulnerable
Example: Family X	The household head is recently widowed; one of her children is chronically ill; she needs assistance during evacuation
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

List of Available Assistance

Household	How they can help
Example: Family Y	Their house is on the hill. They have an extra room They are willing to accommodate another family during floods.
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Date Completed	Comments	Checked by

TL1

D

Identifying and Listing the Most Vulnerable Households in the Community

TL1-E Family Meeting: Creating an Emergency Plan

Level	Activity Site	Frequency	Activity Type
1	Home	Quarterly	Priority

RATIONALE

Your family may not be together when disaster strikes, so it is important to plan in advance: how you will contact one another; how you will get back together; and what you will do in different situations.

Before a typhoon, sit down together and decide what you will do in an emergency. Keep a copy of this plan in your emergency supply kit or another safe place where you can access it in the event of a disaster.

TL1 PROCEDURE

Hold the family meeting at a time when everyone in the family can attend. Set a date and time. Here are some ideas of what to bring up in the family meeting.

Know what emergencies are most likely to affect you and your family. Educate yourself and your family on the different ways to prepare for a disaster. Tell your parents about this workbook and inform them that you will be consulting with them from time to time.

Complete the Emergency Plan on the next page (what to do, where to

go, whom to call). Update it every year.

Making an Emergency Supply Kit (please see Activity TL1-G).

Preparing pets for emergencies. Your pet is an important member of your household. Plan in advance for shelter alternatives that will work for both you and your pets.

Practicing to evacuate your home. If you do not have a car, plan alternate means of evacuating. When local authorities advise you to evacuate, you have to leave immediately.

DURATION

Around 30 minutes to 1 hour per meeting.

Family Emergency Plan

Household Size

- Number of adults in your household: _____
- Number of children in your household: _____

Meeting Places

- Meeting Place Within the Neighborhood
(A park, landmark, or community center near to the home.)
-

- Meeting Place Near the Neighborhood
(A place to meet when the neighborhood is inaccessible or being evacuated, but still within a short distance.)
-

- Out-of-Town Meeting Place:
(A place to meet when your home town or city is inaccessible or being evacuated.)
-

Contact Information:

Household member	Mobile Numbers	Office/School Number
1		
2		
3		
4		

Other Important Phone Number

Hospital/ Ambulance		
Rescue Team		
Police		
Relatives		

Date Completed	Comments	Checked by

TL1

E

Family Meeting: Creating an Emergency Plan

Level	Activity Site	Frequency	Activity Type
1	Community	Annually	Optional

RATIONALE

Indigenous knowledge (IK) refers to the methods and practices developed by a group of people from an advanced understanding of the local environment, which has formed over numerous generations of habitation.

Even before we came up with high technology based early warning

systems or response procedures, numerous local communities worldwide have prepared, operated, acted, and responded to typhoons using indigenous methods passed on from one generation to the next.

TL1

PROCEDURE

Do you know of any Indigenous Knowledge on typhoons in your community? Try to gather these indigenous knowledge. Note down how the people before detect that a typhoon is coming and how they prepare for it. Also note how IK is transferred to younger generations.

List the IK in the table on the next page. Compare notes with your classmates later.

Discuss what you found out with your teacher and try to see if you can

adapt these indigenous knowledge to the present.



DURATION

Around 2 hours

REFERENCE: Shaw, R., Uy, N., and Baumwoll, J. (eds). Indigenous Knowledge for Disaster Risk Reduction. UN-ISDR, Kyoto University, 2008

Example of indigenous knowledge: Some elderly people could know if rain is coming by observing the behavior of animals.

Indigenous Knowledge (IK) on Typhoons	How is this IK transmitted? (written form, orally, etc.)	Has this IK been tested in previous disasters? Explain.
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

What is the attitude of young people in your community toward indigenous knowledge?

What do you think are the advantages of preserving indigenous knowledge?

Date Completed	Comments	Checked by

TL1

F

Collecting Indigenous Knowledge on Typhoon Preparedness

TL1-G Preparing and Updating the Emergency

Level	Activity Site	Frequency	Activity Type
1	Household	Quarterly	Optional

RATIONALE

During a disaster, you and your family may need to survive on your own. Local officials and relief workers cannot reach everyone immediately. This means you must have your own food, water, and other supplies in sufficient

quantity to last for at least three days. You may also have to evacuate at a moment's notice and take only essential items with you. Remember the unique needs of your household members when making your emergency supply kit.

PROCEDURE

A disaster supplies kit is a collection of basic items that members of a household may need in the event of a disaster.

Just as important as putting your supplies together is maintaining them so they are safe to use when needed. Here are some tips to keep your supplies ready and in good condition:

1. Keep non-perishable food in a dry place where the temperature is cool, in tightly closed plastic or metal containers to protect from pests and to extend its shelf life. Use the food before they go bad, and replace them with fresh supplies.

2. Re-think your needs every quarter and update your kit as your family needs change.



DURATION

Around 3 hours the first time the kit is prepared and then around 30 minutes each time the kit is updated.

TL1

G

Preparing and Updating the Emergency Supply Kit

Check List

Check	Item	Explanation
	Water, one gallon of water per person per day for at least three days, for drinking and sanitation	
	Food, at least a three-day supply of non-perishable food. Avoid salty food as they will make you thirsty.	
	Battery-powered or hand crank radio; Flashlight and extra batteries	
	First aid kit with bandages, antiseptic, tape, compresses, pain reliever, anti-diarrhea medication, antacid, etc.	
	Whistle to signal for help	
	Necessary and hard-to-replace documents (birth certificates, licenses, insurance policies, etc.) in a waterproof bag; List of contact names and phone numbers	
	“Special needs” items for family members (infant formula, eye glasses, medications, etc.)	
	A change of clothing per person	
	Waterproof matches and fuel for cooking	
	Extra cash	

TL1

G

Preparing and Updating the Emergency Supply Kit

Date Completed	Comments	Checked by

Level	Activity Site	Frequency	Activity Type
1	Community	During the Typhoon Season	Optional

RATIONALE

Quickly marking floodwater heights is important, especially in understanding the risks posed by future flooding. High water mark collection assists a community by providing vital knowledge needed to avoid future damage to homes and businesses. Capturing flood

elevation information is useful for flood hazard mapping and long-term community planning. More often than not, due to competing response and recovery needs, the task of collecting water height data is overlooked or delayed.

TL1

PROCEDURE

PRECAUTION: Do this activity when floodwaters have already receded.

The flood will leave stain marks on walls, poles, and tree trunks, indicating how high the water actually reached. Measure the elevation from the ground to the stain mark using a meter stick or other measuring devices available.

Once all the elevations in the flooded areas have been measured, they can be compiled into a single community map (please see TL2-F), which will demonstrate the extent and depth of the flooded areas.

Taking photos of or sketching the flood peak will assist in accurately defining the location and height of the flood. Photos of high water marks are an excellent long-term record.

DURATION

Around 2 hours or more depending on how wide the previously inundated area is.

H

Identifying Flooded Areas and Marking Flood Levels

Flood Levels

*Example:Flooded Area: Along Highway Z
Maximum flood height: 0.25 meters
Date of Flooding: July 13, 2009
Picture:/Sketch*

Picture taken from <http://photos.cleveland.com>



Flooded Area: _____
Maximum flood height: _____
Date of Flooding: _____
Picture:/Sketch

Paste Picture Here

Date Completed	Comments	Checked by

TL1

H

Identifying Flooded Areas and Marking Flood Levels

Level	Activity Site	Frequency	Activity Type
1			Priority

Now it's your turn to create an activity on typhoon-preparedness. Divide a larger group into smaller groups of 4 to 5.

Designing your own activity will require teamwork, creativity, communication, time management, etc.

The activity may involve physical or mental challenges as well as singing and dancing, inviting a resource speaker, etc.

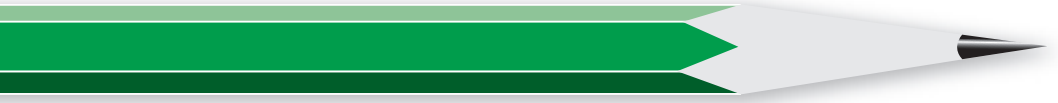
Make your activity educational and fun. Have the other groups try your activity and be sure to try theirs, too.

RATIONALE

TL1

PROCEDURE

DURATION



Outcome of the Activity

Photos or picture could be attached or drawn as well.

TL1

— Developing Your Own Innovative Activity (1)

Date Completed	Comments	Checked by

Level	Activity Site	Frequency	Activity Type
1			Priority

Now it's your turn to create an activity on typhoon-preparedness. Divide a larger group into smaller groups of 4 to 5.

Designing your own activity will require teamwork, creativity, communication, time management, etc.

The activity may involve physical or mental challenges as well as singing and dancing, inviting a resource speaker, etc.

Make your activity educational and fun. Have the other groups try your activity and be sure to try theirs, too.

RATIONALE

TL1

PROCEDURE

DURATION



Outcome of the Activity

Photos or picture could be attached or drawn as well.

Ruled lines for writing the outcome of the activity.

TL1

J

Date Completed	Comments	Checked by

Level One Evaluation: A Poster of What Has

Level	Activity Site	Frequency	Activity Type
1	School	Annually	Priority

RATIONALE

Half-way through this workbook, let us pause for a moment and examine what has been learned so far. This is one way of assessing if the student understood all the

activities he or she had performed and if those activities have a positive impact on the attitude of the student toward typhoons.

PROCEDURE

T1 Using poster paper, make a collage containing the following:

- A comparison of how you see typhoons before and after performing the activities in Level 1
- New knowledge you had learned from your household, school, and community on typhoon preparedness
- Things you plan to do, to enhance the typhoon preparedness of your family, school, and community

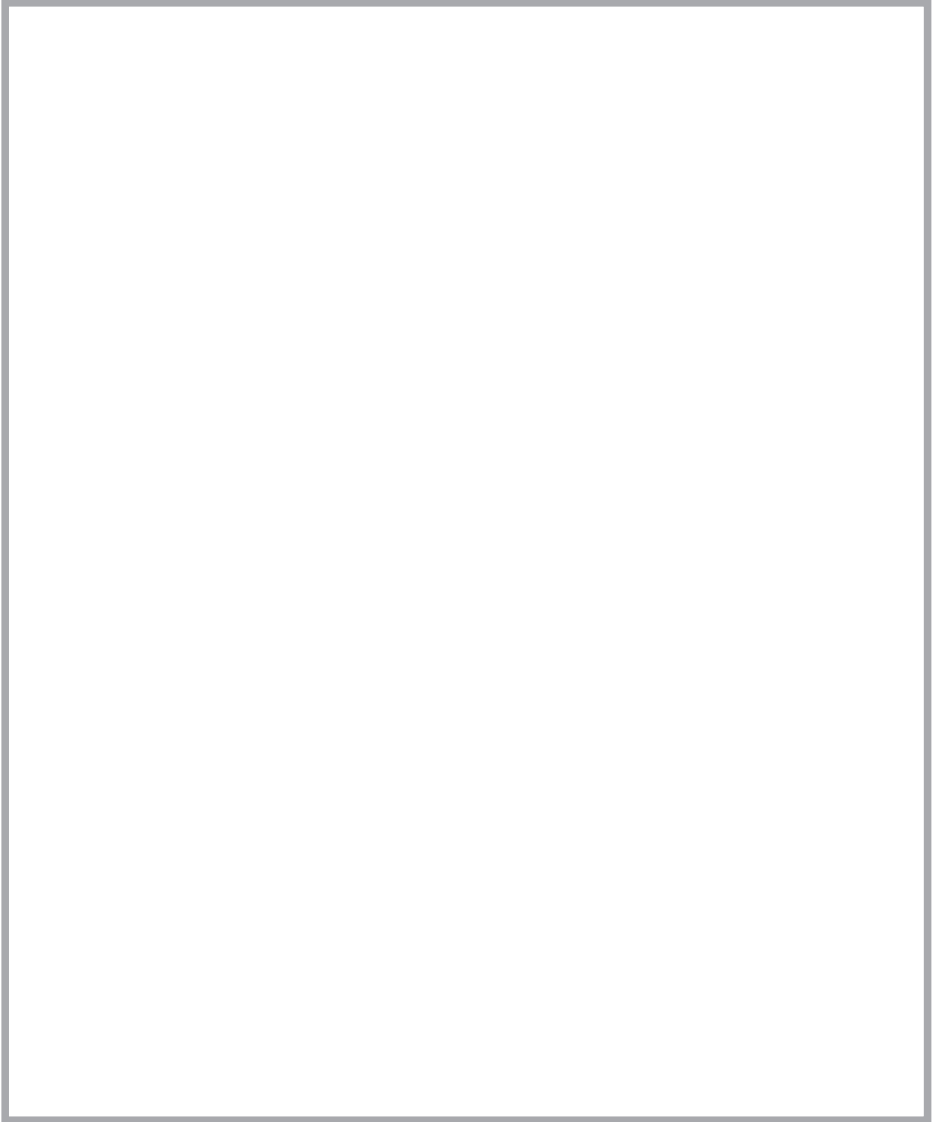
- Drawings and pictures to make your collage more attractive and interesting (like picture of the puppet you made, snapshots of the movie you watched, picture of your emergency kit, picture of you and your friends working on the activities, etc.)
- Present your collage to the class. See if you have space in the classroom where you can display your and your classmates' collage for a few days. Comment on each other's work.

DURATION

Around 2 hours



Poster Draft



TL1

Level One Evaluation:
A Poster of What Has Been Learned So Far

Date Completed	Comments	Checked by

I`ve done it: Level One

Activities		Date Completed Comments, if any	Reviewer's Comments
Priority Activities			
TL1-A. Short Lecture, Film Showing, and Open Forum	<input type="checkbox"/>		
TL1-C. Familiarization of Early Warning Systems	<input type="checkbox"/>		
TL1-D. Identifying and Listing Most Vulnerable Households	<input type="checkbox"/>		
TL1-E. Family Meeting: Creating an Emergency Plan	<input type="checkbox"/>		
TL1-I. Developing Your Own Innovative Activity (1)	<input type="checkbox"/>		
TL1-J. Developing Your Own Innovative Activity (2)	<input type="checkbox"/>		
Optional Activities			
TL1-B. Puppet Show: Roles and Responsibilities of Different Persons in Typhoon Preparedness	<input type="checkbox"/>		
TL1-F. Collecting Indigenous Knowledge on Typhoon Preparedness	<input type="checkbox"/>		
TL1-G. Preparing and Updating the Emergency Supply Kit	<input type="checkbox"/>		
TL1-H. Identifying Flooded Areas and Marking Flood Levels	<input type="checkbox"/>		
Level One Evaluation Poster			

TL1

I`ve done it: Level One



Level Two

Activities and Guidelines



Level Two

		Quarterly	Annually	During the Typhoon Season
		Home		
Priority Activities Think of two Typhoon-preparedness activities that you can do.(Refer to TL2-I and TL2-J)	Community	TL2-H. Clearing Debris and Trash from Drainage Areas	TL2-F. Community Mapping: Identifying Hazard-prone Areas, Evacuation Sites, and Escape Routes	
	School		TL2-A. Play Acting: What to Do in Different Typhoon Scenarios	
	Home		TL2-D. Identifying and Fortifying the Safest Room in the House	
Optional Activities	Community	TL2-E. Enhancing our Natural Buffers Against Typhoons	TL2-C. Collecting Typhoon Stories: Listening to Voices of Experience	
	School	TL2-B. Photography, Drawing, and Essay Contest		

Activities Planner for Level Two

- ★ Identify and mark the pre-typhoon and typhoon season in your community on the calendar.
 - ★ Plan your activities and mark them on the calendar.
- Please consult your teacher and parents on the schedule. You may use the activity codes (example: TL2-A for “Play Acting: What to Do in Different Typhoon Scenarios”).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Week 1												
Week 2												
Week 3												
Week 4												
Week 5												

Level	Activity Site	Frequency	Activity Type
2	School	Annually	Priority

RATIONALE

As mentioned in Level 1, playing “Let’s pretend...” games with students helps them work out “what if” situations. Simulating

different situations will teach students to learn when to act and what to do when a typhoon is on the way.

PROCEDURE

Divide the students to groups of five. They should work together to develop a plan on how to respond to the following scenarios:

What do you do if your windows are broken by the strong winds of the typhoon?

You and your family must evacuate your home for safety. Act out evacuation using an escape route. Don’t forget to include the early warning signal in your dramatization.

What should children do after the typhoon is over? Should children and pets be allowed to go outside? What things can possibly cause injury?

What should you do if you see a fallen power line? What should you do if a tree or branches have fallen on a power line?

Create your own scenario:

DURATION

Around 1.5 hours, 30 minutes to prepare and 1 hour for all the groups to present

Play Acting: What to Do in Different Scenarios Typhoon



Assigned Scenario:

Groupmates	Character

Write your lines in the play here

Do you think simulating different typhoon scenarios are helpful? Why?

Date Completed	Comments	Checked by



TL2

A

Level	Activity Site	Frequency	Activity Type
2	School	Quarterly	Optional

RATIONALE

Competitions, awards, and commendations generate interest and enthusiasm among students, parents and the community. Contests are an effective way of increasing disaster awareness. Some of the most common contests are photography, drawing, and essay-writing contests.

Through these activities, we can engage the attention of students, parents, and the community and make them more aware of the risks they face, how to reduce their vulnerability, and how to cope when disaster strikes.



TL2

PROCEDURE

For the Teacher:

- 1. Establish guidelines for the contest.** Include criteria for judging and ranking the entries.
- 2. Determine a theme.**
- 3. Assemble a judge's panel.** If you know any established writers, artists, and critics, approach them about being a judge. The contest will draw more entries if students are told several well-known personalities are going to be reviewing their work.
- 4. Determine prizes.** If you're looking for a large turn-out, you'll have to offer worthy incentives.

5. Advertise the winning entries.

For the Students:

Taking part in contests is a way of improving yourself. Be confident and do your best!



DURATION

The contest can run for a week.

B

Drawing, Photography, and Essay Contests



Put your entry (picture, drawing, essay) here:



TL2

B

Drawing, Photography, and Essay Contests

How do you think you should improve your entry so that you will have a higher chance of getting the prize?

Date Completed	Comments	Checked by

TL2-C Collecting Typhoon Stories: Listening to

Level	Activity Site	Frequency	Activity Type
2	Community	Annually	Optional

RATIONALE

Most people can't understand the force of the wind if you tell them it's at 200 kilometers an hour (super typhoon wind). But hearing survivors tell their own stories will hopefully bring home the harsh realities of typhoons to those who haven't experienced them.

After years with no catastrophic typhoons, the horrors of previous disasters begin fading in memory.

Disaster preparedness officials face the challenge of impressing upon residents the importance of taking typhoons seriously and being prepared. Stories help get the point across. Typhoons kill people. Want to be dead? Stories are attention-getting. Their fear factor usually has the desired effect.

PROCEDURE

Solicit and catalog the memories of typhoon survivors in your community. Knowing that experience is the best teacher, collecting personal accounts is very important as the stories can be used in future typhoon educational materials.



Picture taken from
<http://www.oneinchpunch.net/>

DURATION

1 hour (30 minutes per interviewee)

TL2

C

Collecting Typhoon Stories: Listening to Voices of Experience



Story # 1

Name of Interviewee: _____

Year and name of the typhoon: _____

Where were they during the storm: _____

A brief account of what happened (include photos, if they have any)

Story # 2

Name of Interviewee: _____

Year and name of the typhoon: _____

Where were they during the storm: _____

A brief account of what happened (include photos, if they have any)



TL2



Date Completed	Comments	Checked by

Level	Activity Site	Frequency	Activity Type
2	Household	Annually	Optional

RATIONALE

Staying in the safest room in the house while a typhoon is raging can help you protect yourself and your family from injury or death caused by extremely dangerous winds.

Knowing that the chances of you being harmed have been minimized can relieve some of the anxiety created by the threat of an ongoing typhoon.

PROCEDURE

Identify the safest room of the house. It is usually the room that has the following features:

- It has walls, roof, and door that are strong enough not to be penetrated by flying objects.
- It has no glass windows.
- It is one of the interior rooms.
- It has no large and heavy hanging light fixtures and other objects that can slide and fall.

In low-lying areas, it is elevated (on upper floors) so that floodwater cannot reach it.

In areas not affected by floods, it is on the basement.

Make the safe room comfortable and equip it with emergency supplies. Make sure that radio or TV signal can reach the room so you can listen to updates on the typhoon.

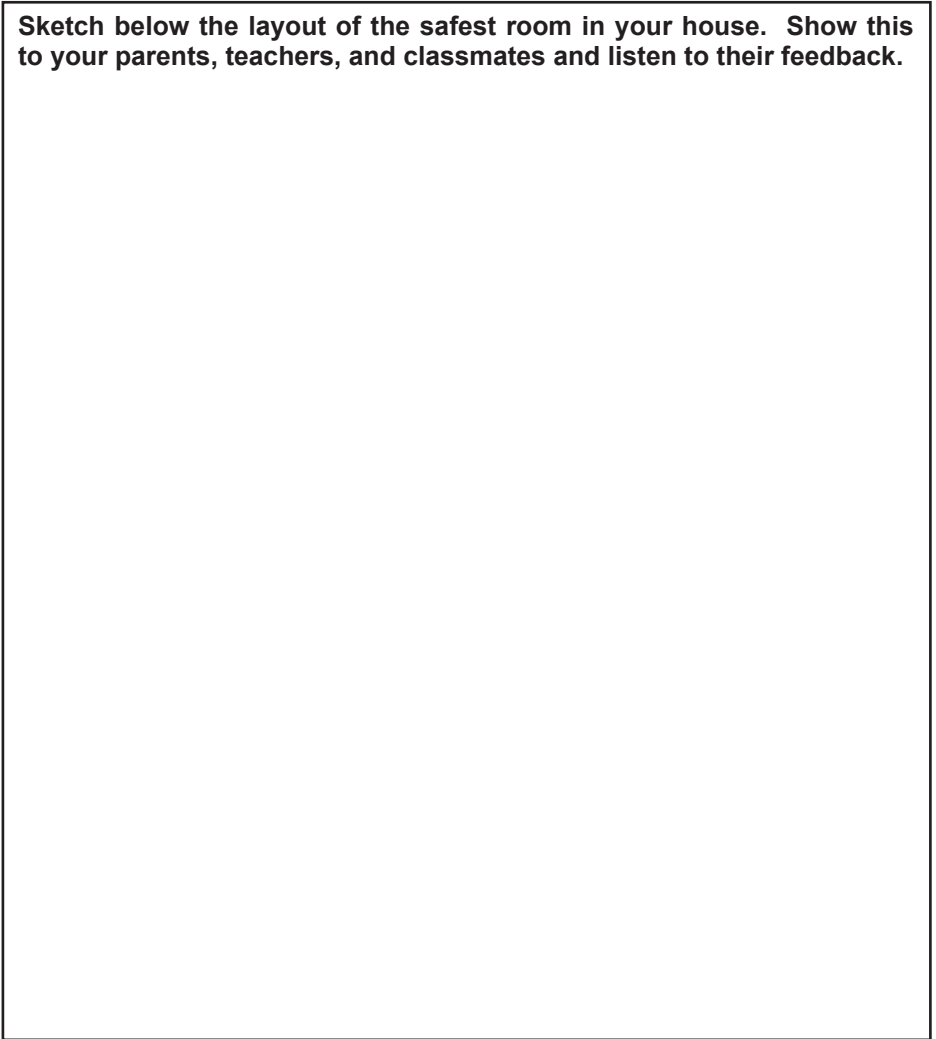
DURATION

Identifying the safest room will take a very short time however doing the fortification of the room might take several days (a few hours at a time, throughout the year)

D Identifying and Fortifying the Safest Room in the House

Room in the House

Sketch below the layout of the safest room in your house. Show this to your parents, teachers, and classmates and listen to their feedback.



How can you make your safe room safer?

Date Completed	Comments	Checked by



TL2

D

Identifying and Fortifying the Safest Room in the House

Level	Activity Site	Frequency	Activity Type
2	Community	Quarterly	Optional

RATIONALE

Maintaining forests, mangroves and other coastal vegetation, and coral reefs as natural buffers can help to minimize the effects of typhoons, landslides, floods, and other disasters. Forests, mangroves, and coral reefs are Nature’s “shock absorbers”.

However, continued land and water degradation due to industrial development and unsustainable agricultural practices have been destroying these natural resources. We must do our best to protect them and help them to recover. Ultimately, this will be for our own good.

TL2

PROCEDURE

Let us start by examining the current condition of natural buffers in your community. What natural buffers are present depend on where your community is located. Go back to Q3 on page 28. Do you live near a coastal area or near the mountain? Please fill in the table on the next page.

Discuss with your neighbors ways of protecting existing vegetation and ways of reforesting deforested areas. This is going to be a long-term project as trees take

time to grow. Use your quarterly community meeting to plan how to bring back the natural buffers.



DURATION

Around 2 hours or more per meeting. Ocular survey might be required to assess the condition of the natural buffers. This might take half a day to several days depending on the area covered by the community.



What is the condition of the natural buffers in your community?

Natural Buffer	Uses	Location in the community	Present Condition
Forests	important for controlling erosion; absorbs water runoff; prevents landslides		
Mangroves	protective barrier against storm surge		
Coral Reefs	protective barrier against storm surge		



E

What activities can residents perform to bring back the health of the natural buffers in your community?

Date Completed	Comments	Checked by

Level	Activity Site	Frequency	Activity Type
2	Community	Annually	Priority

RATIONALE

The community map is a graphic representation of the layout of the community. This activity allows the students to look at local risks

and vulnerability and how their community is preparing for possible disasters.

PROCEDURE

Inquire if your community already has a Hazard Map. If one is available, start with the information on the Hazard Map. Conduct an ocular inspection of your community in order to prepare the Community Map. You must personally walk around the community to determine what risks exist. Make sure you perform a systematic survey, making an inventory of all important items. The following should be included in the community map:

- Community boundary
- Roads
- Main water supply pipes, reservoir, and dams
- Houses
- Community buildings such as

schools, hospitals, markets, churches, workplaces, evacuation shelters, sports complex, ports, military and police outposts

- Natural ecosystems like mangroves, rivers, forests, hills, coasts
- Farms and plantations
- Slum areas
- Large vacant lots and garbage dumps
- Flood plains and low-lying areas; unstable steep slopes and landslide-prone areas
- Sea walls, raised walkways, canals
- Escape routes

DURATION

Around 1 day (walking around the community in the morning and then preparing the Community Map in the afternoon)



TL2

F

Community Mapping: Identifying Hazard-prone Areas, Evacuation Sites, and Escape Routes



Sketch a simpler version of your Community Map here. A detailed version should be prepared using a poster paper.

Share your map with the community. Update it every year

Date Completed	Comments	Checked by



TL2

F

Community Mapping: Identifying Hazard-prone Areas, Evacuation Sites, and Escape Routes

TL2-G Securing and Fastening Things That Can

Level	Activity Site	Frequency	Activity Type
2	Household	During the Typhoon Season	Priority

RATIONALE

Getting your roof and yard ready for the next typhoon can keep you and your home safe. High winds can turn even the heaviest items into deadly projectiles that can break through your windows,

doors, and even walls. Your home's roof is the first line of defence against rain. It is very vulnerable to a typhoon's fury. High wind can tear roofs off.

PROCEDURE

PRECAUTION:

To avoid injury, please seek adult assistance in performing this activity,

Way ahead of the typhoon season, assess your structures. Take a good look at your roof. Is there any damage that you might need to have repaired? Remember, any leaks you may already have can be made worse by wind-driven rain and the impact of storm debris.

Before a typhoon threatens, keep all trees and shrubs well trimmed so they are more wind resistant.

Don't trim your trees at the last minute. A pile of branches can become dangerous windborne debris. Remove dead or rotting trees and branches that could fall and cause injury or damage during a severe typhoon.

Decide who will go to make a final check to ensure that all loose items are stowed away. All outdoor objects that can be blown away or cause damage must be secured.

DURATION

Around 2 hours or more depending on how many loose items are in the yard



TL2



Securing and Fastening Things That Can Be Blown Away



When a typhoon warning is issued, bring in the following items:

Check	Item
	Outdoor furniture
	Toys
	Decorations
	Garbage cans
	Clothes and hangers in the clothesline
	Garden tools
	Flags

Has your roof been fixed? Are there no more leaks?

- Yes (Congratulate yourself and your family. You are prepared!)
- No (When will your household do this? Set a target date.)

Are there loose objects in the yard of your nearest neighbor?

- Yes (You might want to remind them to do some housekeeping. These objects might injure them or other neighbors when carried by strong winds. Offer to help if you have time.)
- No (Good to know that they are ready as well.)

Date Completed	Comments	Checked by



TL2



Level	Activity Site	Frequency	Activity Type
2	Community	Quarterly	Priority

RATIONALE

Every year clogged drains and canals lead to flooding during a typhoon, causing serious damage to property, structures, agriculture, roads, and utilities. The resulting floods also increase commute times, create health and safety hazards, and, in worst-case scenario, can

even lead to death. Therefore, community clean-ups are necessary. Before a typhoon, we need to clear the drains. After a typhoon, piles of debris and tree branches are everywhere. Another volunteer clean-up activity is again necessary.

TL2

PROCEDURE

PRECAUTION:
For sanitary reasons, wearing protective gloves when cleaning out drains is advised.

- Make sure drains and canals are free of leaves, litter, and other debris. Dispose of collected debris and trash properly.
- Do not rake leaves or other organic refuse into the street or into a nearby ditch when doing yard work. The refuse will only end up blocking the drainage system. Furthermore, yard waste

reduces oxygen in the water and adds nutrients that would not otherwise get into the water system. These nutrients can lead to algal blooms in downstream water bodies and cause further damage.

- Remove dead or rotting trees and branches that could fall and cause injury or damage during the next severe typhoon.

DURATION

Around 2 hours depending on the amount of debris and trash to be collected

H Clearing Debris and Trash from Drainage Areas



What tools are needed for this activity?

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

Try joining clean-up activities in different areas in your community. This will help you become familiar with your community.

Quarter	Area
1	
2	
3	
4	



TL2



What for you is the most challenging aspect of this activity?

How do you think attendance in clean-up activities can be increased?

List down some observations you have:

Date Completed	Comments	Checked by

Level	Activity Site	Frequency	Activity Type
2			Priority

Now it's your turn to create an activity on typhoon-preparedness. Divide a larger group into smaller groups of 4 to 5.

Designing your own activity will require teamwork, creativity, communication, time management, etc.

The activity may involve physical or mental challenges as well as singing and dancing, inviting a resource speaker, etc.

Make your activity educational and fun. Have the other groups try your activity and be sure to try theirs, too.

RATIONALE

PROCEDURE

DURATION



TL2





Outcome of the Activity

Photos or picture could be attached or drawn as well.



TL2



Developing Your Own Innovative Activity (1)

Date Completed	Comments	Checked by

Level	Activity Site	Frequency	Activity Type
2			Priority

Now it's your turn to create an activity on typhoon-preparedness. Divide a larger group into smaller groups of 4 to 5.

Designing your own activity will require teamwork, creativity, communication, time management, etc.

The activity may involve physical or mental challenges as well as singing and dancing, inviting a resource speaker, etc.

Make your activity educational and fun. Have the other groups try your activity and be sure to try theirs, too.

RATIONALE

TL2

PROCEDURE

DURATION



Outcome of the Activity

Photos or picture could be attached or drawn as well.



TL2



Developing Your Own Innovative Activity (2)

Date Completed	Comments	Checked by

Level Two Evaluation: Helping Increase

Level	Activity Site	Frequency	Activity Type
2	School	Annually	Priority

RATIONALE

Now that we have finished the entire workbook, let us reflect on what you have learned and synthesize these new knowledge

and ideas into a final output that can be long-lasting and meaningful to you and which you can also share with other people.

PROCEDURE

TL2

As a last activity, make a scrapbook using clippings, notes, pictures, comments, sketches, maps, etc. can be pasted to a sturdy album that you can pass around and show to classmates, teachers, friends, family, and neighbors.

If you have access to the internet, you may consider blogging about your experiences doing the activities in the workshop. This way you can have a bigger audience. You can post your outputs and ask visitors to your blog to comment or to make their own. But so that you will always have fresh contents in your blog, be sure to study further on typhoon preparedness!

We will be delighted to see your scrapbook or blog! Do drop us a line at: glenn.fernandez@ax8.ecs.kyoto-u.ac.jp

Thank you for persevering in completing the workbook! We hope you, your classmates and teachers, your family, and your community had fun doing the activities!

DURATION

The student can spend a few minutes every week to update his scrapbook and/or blog and to show it to other people

Public Awareness

Write in the box below your plans on how you will make your scrapbook and/or blog.



TL2

Level Two Evaluation:
Helping Increase Public Awareness

Date Completed	Comments	Checked by

I've done it: Level Two

Activities	Date Completed	Comments, if any	Reviewer's Comments
Priority Activities			
TL2-A. Play Acting: What to Do in Different Typhoon Scenarios	<input type="checkbox"/>		
TL2-F. Community Mapping: Identifying Hazard-prone Areas, Evacuation Sites, and Escape Routes	<input type="checkbox"/>		
TL2-G. Securing and Fastening Things that can be Blown Away	<input type="checkbox"/>		
TL2-H. Clearing Debris and Trash from Drainage Areas	<input type="checkbox"/>		
TL2-I. Developing Your Own Innovative Activity (1)	<input type="checkbox"/>		
TL2-J. Developing Your Own Innovative Activity (2)	<input type="checkbox"/>		
Optional Activities			
TL2-B. Photography, Drawing, and Essay Contest	<input type="checkbox"/>		
TL2-C. Collecting Typhoon Stories: Listening to Voices of Experience	<input type="checkbox"/>		
TL2-D. Identifying and Fortifying the Safest Room in the House	<input type="checkbox"/>		
TL2-E. Enhancing our Natural Buffers Against Typhoons	<input type="checkbox"/>		
Level Two Evaluation Scrapbook /Blog			



TL2

I've done it: Level Two



Workbook 2: Prepare Before The Flood





Workbook 2: Prepare Before The Flood



Introduction

Disasters can strike quickly and without warning.

In the case of an emergency, being prepared and knowing what to do can save time, property and lives. Simple actions can make a difference in the survival of our family, our students and our neighbors. So let's start by getting ourselves prepared today.

1. What are floods?

Flood is an overflow of a large amount of water beyond its normal limits especially over normally dry areas.

It could be due to prolonged rain event, stream/river overflow, dam failure, or climatic conditions such as severe thunderstorms or tropical cyclones.

Flooding is one of the deadliest of natural disasters, claiming thousands of lives every year and rendering millions homeless.

2. What is the purpose of this workbook?

This workbook describes the educational program for floods. It contains activities that students can perform to help themselves, their household, their school and their community prepare for floods. It also includes information of the disaster as well as safety tips.

The goal is to increase flood awareness and help the students to be prepared and be able to protect themselves during a flood.

Hopefully, this workbook can help promote understanding that disaster preparedness is not accomplished overnight and it is never complete.

Program Structure

QUESTIONNAIRE
MY FLOOD
CALENDAR

To find out how much the students know about their community and to plan their activities.

SELECT COURSE

LEVEL ONE

LEVEL TWO

※ One has to complete L1 before L2

Home

Community

School

OUTLINE OF THE
COURSES

Intervals of activities:

- Monthly
- Quarterly
- Annually
- During Flood

Type of activities:

- Priority
- Optional



Before we begin, do you know...?

Q1. Are there floods in your community?

YES NO

Q2. Have you experienced a flood?

YES NO

Q3. Do you know the difference between flood and flashflood?

※ Refer to pages 131-132 for more information.

YES NO

Q4. Do you know the hazard mapping of your community?

YES NO

Q5. Is there a local early warning system in your community?

YES NO

Q6. Do you know the local warning system?

YES NO

Before we begin, do you know...?

Date Completed	Comments	Checked by



Level One

Activities and Guidelines



Level One		Monthly	Quarterly	Annually
Priority Activities Think of two Flood-preparedness activities that you can do. (Refer to FL1-G and FL1-H)	Home	FL1-F. Creating a Checklist and Performing Monthly Checks		
	Community		FL1-E. Community Interaction	
	School		FL1-D. Understanding the Flood Prevention Support in Your Community	FL1-B. Conducting Experiment Sessions
Optional Activities	Home		FL1-C. Family Chats on Past Flood Experiences.	
	Community			FL1-A. Conducting First-Aid Training
	School			

Activities Planner for Level One

- ★ Identify and mark the pre-flood and flooding period in your community on the calendar.
- ★ Plan your activities and mark them on the calendar. Please consult your teacher and parents on the schedule. You may use the activity codes (example: FL1-A for “Conducting First-Aid Training”).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Week 1												
Week 2												
Week 3												
Week 4												
Week 5												

Level	Activity Site	Frequency	Activity Type
1	Community	Annually	Optional

RATIONALE

In an emergency, a family member, a neighbor, a friend or yourself may be cut, burned, or suffer other injuries.

Many injuries are not life threatening and do not require

immediate medical attention.

Having basic first-aid training can help treat yourself and others when they are hurt in case of an emergency.

PROCEDURE

School may invite a qualified instructor to conduct basic first-aid training. Alternatively, students may find out if there are such training sessions at your local community

center. You may also approach local hospital or the local chapter of Red Cross.

DURATION

Depending on the training content, it could take a few hours to a day.

BASIC FIRST-AID may include learning the following conditions:

- Bleeding, treated by applying pressure (manually and later with a pressure bandage) to the wound site and elevating the limb if possible
- Hypothermia which occurs when a person's core body temperature falls below 33.7°C.
- Insect and animal bites and stings.
- Poisoning, which can occur by injection, inhalation, absorption, or ingestion
- Muscle strains and sprains
- Cramps, bone fracture, and burns

FL1

A

Conducting First-Aid Training



What was learned (_____, _____)

FL1

A
Conducting First-Aid Training

Date Completed	Comments	Checked by

Level	Activity Site	Frequency	Activity Type
1	School	Annually	Priority

SUGGESTED EXPERIMENT

www.redcross.org/disaster/masters

UNDERSTANDING THE SOIL

PURPOSE

To help students understand water infiltration into soil and how infiltration speed differs with different types of soil.

PROCEDURE

- Mold the soil into the landscape in your community. (hills, rivers, dry streambed etc..)
- Spray water to stimulate rain.

MATERIALS

Very large pan/plastic box, soil, water, spray bottle

THINGS TO OBSERVE

- Which type of soil is saturated first.
- Flood progress (e.g. smaller streams flood first and progress to low-lying areas)

DURATION

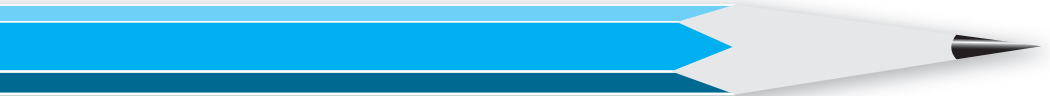
2-3 hours

THINGS TO CONSIDER

- What is the soil makeup at your home or your neighborhood?
- What is the risks in your community based on the soil status?



Photo taken from Shelby County Soil and Water Conservation District <http://www.shelbycountyswcd.org/soil%20survey%20online.htm>



Experiment:

Date:

※ Photos or picture can be attached or drawn as well.

FL1

B

Conducting Experiment Sessions

Date Completed	Comments	Checked by

Level	Activity Site	Frequency	Activity Type
1	Home	Quarterly	Optional

RATIONALE

It is difficult to imagine the impact of a disaster without having actual experience.

If you have not experienced a flood, perhaps someone in your family had and listening to their

experiences can help you better understand the danger, the impact, and the aftermath, which can help you to be prepared when you are faced with a flood.

PROCEDURE

Chats can be held over dinner or anytime at one's convenience.

Parents can also explain more about flood or share their experiences with their children.

Students may make short memos of what has been discussed.

DURATION

Chats can take 30 minutes to 1 hour.

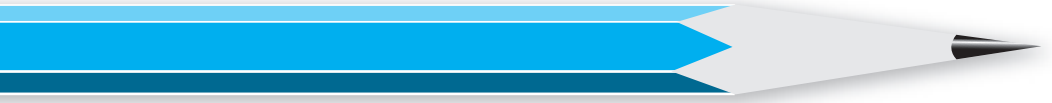
(Example)

MEMO (Date: 1 Oct, What I heard: Never to swim)

e.g. 1 Oct. Yesterday, we were watching TV when we saw news of flood happening in country X. Mom reminded me never to swim in a flood as it is very dangerous.

FL1

C Family Chats on Past Flood Experiences



Date	Family Member	Details of Discussion	Personal Thoughts

FL1

C

Family Chats on Past Flood Experiences

Date Completed	Comments	Checked by

Level	Activity Site	Frequency	Activity Type
1	School	Quarterly	Priority

RATIONALE

It is important to find out if an early warning system is available in your community. If there is a warning system, are you able to recognize it?

There had been cases when warning systems were set off,

however, the citizens did not understand and fail to respond.

Therefore, it is important and its our responsibility to find out and understand the early warning system in our community.

FL1

DURATION

Depending on the activity, it may take 30 minutes to a day.

D

SUGGESTED ACTIVITES:

- Learn about the information provided in pamphlets.
- Learn about the information disseminated through the local radio stations
- Find out what kind of information are available at the local community.
- If possible, visit the local authorities to find out more about the early warning systems.

(Example)

MEMO (Date: 1 Oct, What was learned: Visit to local authorities)

I attended a talk given by the local authorities and learned about the different warning sirens as well as where to go for shelter in case of emergency.



Date	Venues	Details of Activities

Date Completed	Comments	Checked by

FL1

D

Understanding the Flood Prevention Support
in Your Community

Level	Activity Site	Frequency	Activity Type
1	Community	Quarterly	Priority

RATIONALE

Understanding your community and being familiar with the people living around you can help yourself as well as others in case of emergency.

Being familiar with the area, knowing your way around the neighborhood will help you in your evacuation.

Neighbors are the ones who are closest and often the ones who provide immediate assistance during an emergency. Therefore,

having a good relationship is important. At the same time, you can also help the 'vulnerable' individuals in your neighborhood and ensure that they are not left alone but given adequate assistance during an emergency.

Last but not least, it can serve as means of information exchange where students can listen and learn from the past experiences of the local citizens.

FL1

E

Community Interaction

DURATION

Depending on the activity, it may take 15 minutes to a day.

SUGGESTED ACTIVITES:

- Greet your neighbors
- Community volunteering
- Participate in the neighborhood gatherings
- Participate in the festive events
- Elderly home visits

(Example)

MEMO (Date: 1 Oct, What was done: Met a neighbor)

I meet this old lady who stays 2 blocks away from my home. She stays alone and her children visits her once a month.



Date	Venues	Details of Activities

FL1

F

Community Interaction

Date Completed	Comments	Checked by

Level	Activity Site	Frequency	Activity Type
1	Home	Monthly	Priority

RATIONALE

During a disaster, you may need to pack and evacuate as soon as possible upon short notice. As you probably will not be able to think about what should be brought along or have time to shop or search for the supplies you need, it will be useful to prepare a checklist

which lists the things that you find important in case of an emergency.

An example is provided below. Items differ between families, hence, think of a checklist that best suits your family's needs.

FL1

DURATION

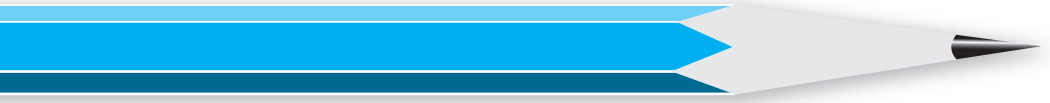
F Depending on the items, checking may take 15-20 minutes.

Example of Checklist:

Are important documents and valuable items placed in a safe and easily accessible place.	<input type="checkbox"/>
Is there an emergency kit for your family?	<input type="checkbox"/>
If yes, are the items in good condition?	<input type="checkbox"/>
For food items, are they within expiry dates?	<input type="checkbox"/>

Suggestions for home emergency kit

- Water
- Food
- Radio
- Flash light with extra batteries
- First-aid kit
- Whistles
- Local map
- Money



My Flood Checklist

	<input type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>

FL1

F

Creating a Checklist and Perform Monthly Checks

Put a tick (✓) after checking

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Date Completed	Comments	Checked by

Level	Activity Site	Frequency	Activity Type
1			Priority

Now it's your turn to create an activity on flood-preparedness. Divide a larger group into smaller groups of 4 to 5.

Designing your own activity will require teamwork, creativity, communication, time management, etc.

The activity may involve physical or mental challenges as well as singing and dancing, inviting a resource speaker, etc.

Make your activity educational and fun. Have the other groups try your activity and be sure to try theirs, too.

RATIONALE

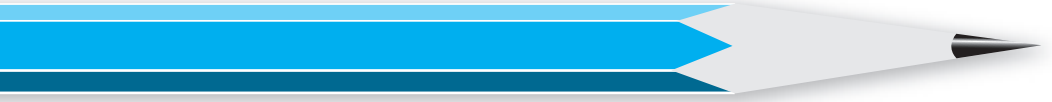
FL1

G

Developing Your Own Innovative Activity (1)

PROCEDURE

DURATION



Outcome of the Activity

Photos or picture could be attached or drawn as well.

FL1

C

Developing Your Own Innovative Activity (1)

Date Completed	Comments	Checked by

Level	Activity Site	Frequency	Activity Type
1			Priority

Now it's your turn to create an activity on flood-preparedness. Divide a larger group into smaller groups of 4 to 5.

Designing your own activity will require teamwork, creativity, communication, time management, etc.

The activity may involve physical or mental challenges as well as singing and dancing, inviting a resource speaker, etc.

Make your activity educational and fun. Have the other groups try your activity and be sure to try theirs, too.

RATIONALE

FL1

H

PROCEDURE

DURATION



Outcome of the Activity

Photos or picture could be attached or drawn as well.

FL1

H

Developing Your Own Innovative Activity (2)

Date Completed	Comments	Checked by

Level One Evaluation: Poster Presentation

Level	Activity Site	Frequency	Activity Type
1	School	Annually	Priority

RATIONALE

After participating in the various activities, by asking students to present and show what they have learned can trigger critical thinking within the students as well as sharing information about what they have learned with other students.

It also allows the students to review on their year's work and how it has affected themselves in the process.

PROCEDURE

FL1

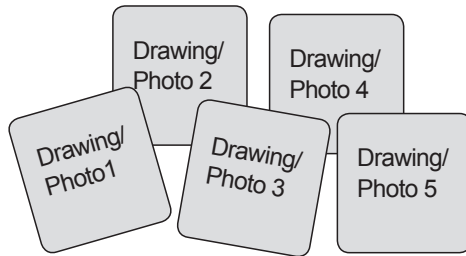
Presentation could be done in a scrap book or poster containing the following:

- Thoughts from community activities
- Lessons learned from local citizens / family members
- Personal experiences such as learning about the local warning system.
- What has been learned in schools such as the experiment sessions.

Example of the poster

I've learned:

- How to recognize the warning sirens
- About past flood events from Mr A and Mrs B who have stayed in the community for the past 20 years
- The importance of being prepared. My emergency kit is ready in case of an emergency



My thoughts

I've enjoyed the activities and have learned a lot about flood through them. I am more prepared for the next flood.



Poster Draft

FL1

Level One Evaluation: Poster Presentation

Date Completed	Comments	Checked by

I've done it: Level One

Activities		Date Completed Comments, if any	Reviewer's Comments
Priority Activities			
FL1-B. Conducting Experiment Sessions	<input type="checkbox"/>		
FL1-D. Understanding the Flood Prevention Support in Your Community	<input type="checkbox"/>		
FL1-E. Community Interaction	<input type="checkbox"/>		
FL1 FL1-F. Creating a Checklist and Performing Monthly Checks	<input type="checkbox"/>		
FL1-G. Developing Your Own Innovative Activity (1)	<input type="checkbox"/>		
FL1-H. Developing Your Own Innovative Activity (2)	<input type="checkbox"/>		
Optional Activities			
FL1-A. Conducting First-Aid Training	<input type="checkbox"/>		
FL1-C. Family Chats on Past Flood Experiences	<input type="checkbox"/>		
Level One Evaluation Poster Presentation	<input type="checkbox"/>		

FL1

I've done it: Level One



Level Two

Activities and Guidelines



Level Two

Level Two		Quarterly	Annually	During the Flood
Priority Activities Think of 2 Flood-preparedness activities that you can do. (Refer to FL2-H and FL2-I)	Home		FL2-C. Creating an Emergency Escape Plan	
	Community	FL2-B. Participating in Post-Flood Activities Such as Clearing of Debris		FL2-F. Ensuring that Family Members, Neighbors are Warned
	School		FL2-D. Community Mapping	
Optional Activities	Home			FL2-G. Ensuring that Electrical Appliances are Unplugged
	Community		FL2-E. Drawing or Photography Contest	
	School	FL2-A. Short Lecture and Video Watching		

Activities Planner for Level Two

- ★ Identify and mark the pre-flood and flooding period in your community on the calendar.
- ★ Plan your activities and mark them on the calendar. Please consult your teacher and parents on the schedule. You may use the activity codes (example: FL2-A for “Short Lecture and Video Watching”).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Week 1												
Week 2												
Week 3												
Week 4												
Week 5												

Level	Activity Site	Frequency	Activity Type
2	School	Quarterly	Optional

RATIONALE

Visual tools are often more effective in creating an impact or leaving an impression to the one receiving it. Through video

watching, students have a clearer image of what they can expect during the actual situation.

PROCEDURE

To allow students to better understand the contents, it would be helpful if teachers prepare a

short lecture as an introduction to the films and documentaries.

DURATION

Lectures may take 30 minutes to an hour. Film would take 1-2 hours.

SUGGESTED TOPICS

- What are floods?
- Why do floods occur?
- Recent flood disasters.
- Places likely to be affected

Students may write a short memo of their thoughts after the session.

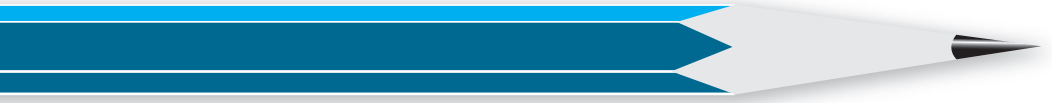
(Example)

MEMO (Date: 1 Oct, What I saw: Documentary on flood)

e.g. 1 Oct. Today, I saw a documentary about formation of flood. It was very interesting. It showed the water cycle and what leads to flood. Before watching the documentary, teacher gave us a simple explanation to help us understand the content.

A

Short Lecture and Video Watching



Date	What was shown	How I felt



FL2

A

Short Lecture and Video Watching

Date Completed	Comments	Checked by

Level	Activity Site	Frequency	Activity Type
2	Community	Quarterly	Priority

RATIONALE

A disaster causes serious damage to property, structures, agriculture, roads, and utilities. Following a disaster such as floods, clean-ups are often necessary. A

volunteer clean-up activity can help your community recover from the disaster. At the same time, it also helps create a stronger, closer-knit community.

DURATION

Activities would take few hours to a day

FL2

SUGGESTED TOPICS

- Make sure drains, canals, and ditches are free of leaves, litter, and other debris that may inhibit proper flow of water
- Dispose of collected debris and trash properly.

Students may take pictures of the conditions following the flood and of what they did to help the community recover from the flood.

(Example)

MEMO (Date: 1 Oct, What I saw: A week after flood)

A week after we returned home after the flood, there were broken tree branches, stones everywhere. The community formed cleaning teams to help clear the debris. I participated as well...

B

Participating in Post-Flood Activities such as Clearing of Debris

Clearing of Debris



Date	Details of Activities (WHEN and WHERE was the activity done? WHAT was done?)



FL2

B

Participating in Post-Flood Activities such as Clearing of Debris

Date Completed	Comments	Checked by

Level	Activity Site	Frequency	Activity Type
2	Home	Annually	Priority

RATIONALE

Disaster often strikes when you least expect so it is important to plan in advance.

Make sure your family has a plan in case of an emergency.

PROCEDURE

Hold a family meeting at a time when everyone in the family can attend. Adults will be the

main facilitator, suggesting what should be noted or done during an emergency.

FL2 DURATION

1-2 hours

THINGS TO CONSIDER

- Ensure all family members recognize the local emergency warning systems
- Practice to evacuate your home
- Being informed. Monitor local radio and television news for latest updates
- Educate yourself and your family on the different ways to prepare for a disaster and to evacuate promptly upon being warned by the local authorities.
- Ensure your emergency kit has the essential supplies for survival.

Do you know the following emergency contact numbers?
Police
Fire
Ambulance



Family Escape Plan

When was it held:

Who were present:

What were discussed?

Actions? What were done?



FL2



Date Completed	Comments	Checked by

Level	Activity Site	Frequency	Activity Type
2	School	Annually	Priority

RATIONALE

To understand and develop concrete images of your community through field survey.

PROCEDURE

- An orientation or explanation session should be given to the students prior to the field trip, providing students an idea of the impact of floods and what to look for during their field survey.
- At the end of the survey, students would give a presentation based on their observations (e.g., a map)
- Students to be divided into groups (6-8/group).

DURATION

Orientation will take 1-2 hours. Activity will take up to a day.

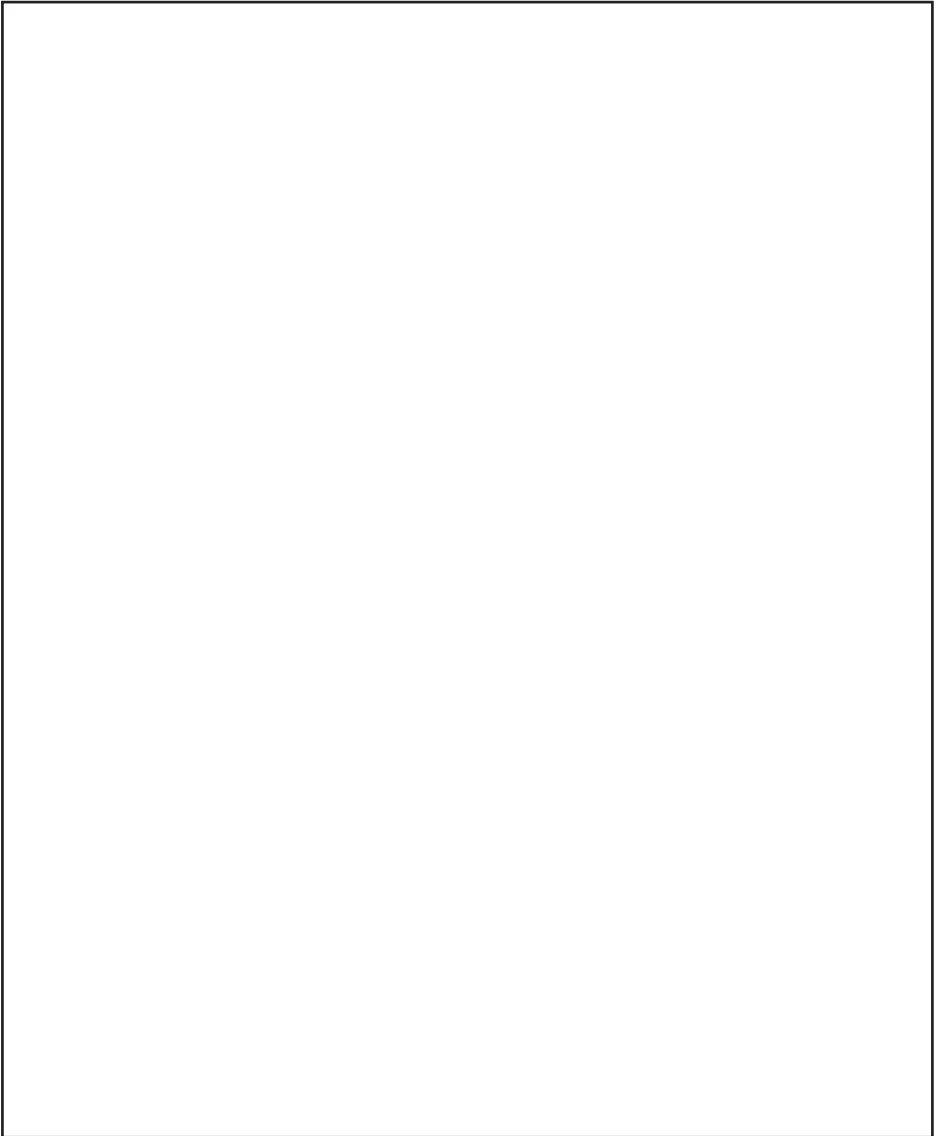
IDENTIFY THE FOLLOWING:

- Potentially 'dangerous' place (soil type, low-lying areas)
- Damaged areas by flood
- 'Safe' places (higher grounds)
- What may hinder escape during a flood (e.g. waste dumped by the roadside)



My Community (Date of activity:

)



FL2

D

Community Mapping; Identifying the risk areas, evacuation sites and escape routes

Date Completed	Comments	Checked by

Level	Activity Site	Frequency	Activity Type
2	Community	Annually	Optional

RATIONALE

This activity is to promote children’s participation in understanding and changing risk factors in their immediate surroundings.

The activity allows students to express their feelings, at the same time, it gives teachers or the local officials the opportunity to see

from the students’ perspective and understand the impact that the disaster have on the students.

A theme will be set and based on the theme, students could either draw or take photos to express their thoughts.

SUGGESTED THEMES

- Impact of the recent flood experience
- How has the local warning systems helped in case of emergency
- How have I contributed to the community during a flood
- The high risks areas in my community

DURATION

Orientation would take 1-2hours. Activity will take up to a day.

EXAMPLE

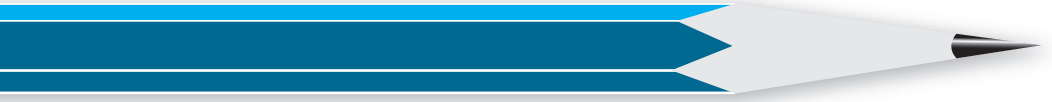


Students drawings shown at the World Conference on Natural Disaster Reduction, a 1994 United Nations conference in Yokohama, Japan.

REFERENCES

<http://www.eird.org/contest/>

<http://www.redcrosslv.org/drawing.html>



Concept of Contest Entry



FL2

F

Drawing or Photography Contest

Date Completed	Comments	Checked by

FL2-F Ensuring that Family Members, Neighbors

Level	Activity Site	Frequency	Activity Type
2	Community	During a Flood	Priority

RATIONALE

Prior to the arrival of a flood, local government will have warned the local citizens through news/radio broadcast or siren alarms.

However, there can be family members who may have missed the news or radio broadcast,

or do not recognize the sirens (particularly the elderly). Therefore, if you know of a flood warning, it is your responsibility to inform your loved ones and neighbors and ensure that they are alerted as well.

PROCEDURE

Upon being alerted of a potential flood and warned to evacuate:

Inform your family members to make sure they are aware as well. Start packing the important and valuable items and be ready for evacuation.

If you know of anyone in your neighborhood who may not be aware of the warning (for example, the old lady who lives alone a few blocks from your home), remember to inform them as well.





What I did during the recent flood

Photos or picture can be attached or drawn as well.

FL2
F
Ensuring that Family Members, Neighbors are Warned

Date Completed	Comments	Checked by

Level	Activity Site	Frequency	Activity Type
2	Home	During the Flood	Optional

RATIONALE

When a flood occurs in your community and you are informed by the local authorities to evacuate, secure your home, pack, and leave as soon as possible.

If time permits, it may be good to turn off all utilities at the main switches or valves and disconnect

household electrical appliances to avoid occurrence of a short-circuit. Keep in mind to avoid direct contact with electrical equipment if you are wet or standing in water to avoid electrocution.

THINGS TO CHECK

- Are the main switches turned off?
- Are the plugs pulled out from the sockets?
- Are there electrical appliances submerged in water.

If you do not have time, just evacuate as fast as you can.

However, remember to check that the sockets and plugs are dry before switching on any electrical appliance after returning home.



Electric appliances checked

MEMO

Date Completed	Comments	Checked by



FL2

G

Ensuring that Electrical Appliances are Unplugged

Level	Activity Site	Frequency	Activity Type
2			Priority

Now it's your turn to create an activity on flood-preparedness. Divide a larger group into smaller groups of 4 to 5.

Designing your own activity will require teamwork, creativity, communication, time management, etc.

The activity may involve physical or mental challenges as well as singing and dancing, inviting a resource speaker, etc.

Make your activity educational and fun. Have the other groups try your activity and be sure to try theirs, too.

RATIONALE



FL2

H

Developing Your Own Innovative Activity (1)

PROCEDURE

DURATION



Outcome of the Activity

Photos or picture could be attached or drawn as well.



FL2



Developing Your Own Innovative Activity (1)

Date Completed	Comments	Checked by

Level	Activity Site	Frequency	Activity Type
2			Priority

Now it's your turn to create an activity on flood-preparedness. Divide a larger group into smaller groups of 4 to 5.

Designing your own activity will require teamwork, creativity, communication, time management, etc.

The activity may involve physical or mental challenges as well as singing and dancing, inviting a resource speaker, etc.

Make your activity educational and fun. Have the other groups try your activity and be sure to try theirs, too.

RATIONALE

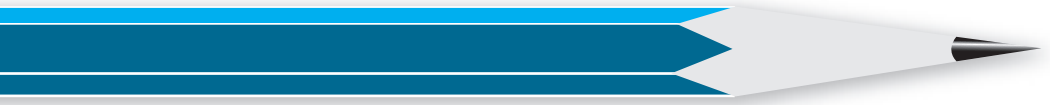
PROCEDURE

DURATION



FL2





Outcome of the Activity

Photos or picture could be attached or drawn as well.



FL2



Developing Your Own Innovative Activity (2)

Date Completed	Comments	Checked by

Level Two Evaluation: Poster Presentation

Level	Activity Site	Frequency	Activity Type
2	School	Annually	Priority

RATIONALE

Having completed both levels in the workbook, we hope that it has helped increase the flood preparedness in students.

Similar to Level One evaluation, this poster presentation provides the opportunity for students to

share with others what have been learned, what they found useful and whether they were able to put what have been learned into practice during an actual flood situation.

PROCEDURE

FL2

Presentation can be done in a scrap book or poster containing the following:

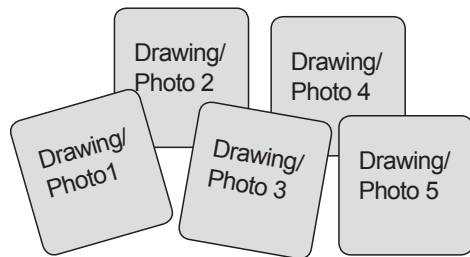
- Thoughts from community activities
- What has been observed through community mapping.

- Have the activities helped you to respond during a flood?
- Events participated (such as drawing or photography contests), if any.

Example of the poster

What I have done:

- Participated in post flood activity and helped cleared debris in the community
- Through community mapping, I've found out more about my community, the risk areas as well as the shelter places
- Participated in drawing contest
- I helped an old lady during the flood this year.



My thoughts

The program helped increase my awareness about flood and I was able to better protect myself during a flood



Poster Draft



Level Two Evaluation: Poster Presentation

Date Completed	Comments	Checked by

I've done it: Level Two

Activities		Date Completed	Reviewer's Comments
Priority Activities			
FL2-B. Participating in Post- Flood Activities such as Clearing of Debris	<input type="checkbox"/>		
FL2-C. Creating an Emergency Escape Plan	<input type="checkbox"/>		
FL2-D. Community Mapping	<input type="checkbox"/>		
FL2-F. Ensuring that Family Members, Neighbors are Warned	<input type="checkbox"/>		
FL2-H. Developing Your Own Innovative Activity (1)	<input type="checkbox"/>		
FL2-I. Developing Your Own Innovative Activity (2)	<input type="checkbox"/>		
Optional Activities			
FL2-A Short Lecture and Video Watching	<input type="checkbox"/>		
FL2-E. Drawing or Photography Contest	<input type="checkbox"/>		
FL2-G. Ensuring that Electrical Appliances are Unplugged	<input type="checkbox"/>		
Level Two Evaluation Poster Presentation	<input type="checkbox"/>		



FL2

I've Done it: Level Two

Information on Flood and Flash Flood

REFERENCES: <http://www.disastercenter.com/guide/flood.html>

	Flood (or river flood)	Flash flood
Definition	An overflow of water onto normally dry land. The inundation of a normally dry area caused by rising water in an existing waterway, such as a river, stream, or drainage ditch.	A flood caused by heavy or excessive rainfall in a short period of time, generally less than 6 hours. Flash floods are usually characterized by raging torrents after heavy rains that rip through river beds, urban streets, or mountain canyons sweeping everything before them.
Possible Causes	Occurs as the result of prolonged rain event, stream/river overflow, or dam failure. It could be caused by severe thunderstorms or tropical cyclones.	Occurs during heavy rain events (~6hrs), levee or dam failure or after severe typhoons or thunderstorm. Could also be due to breakage of underground pipes (particularly in cities)
Warning	Long warning period. (Gradual onset)	Short warning period. (Sudden onset)
Water velocity	Gradual rise in water Usually low velocity	Sudden rise in water. High velocity.
Effect	Rising waters flooding riverbeds	Rapidly moving floodwaters. Knockdown, uproot or carry away trees, buildings and vehicles
Duration	Prolonged event	Short period of time



FL2

★ General Safety Tips ★

Before Flood

- Start packing and LEAVE IMMEDIATELY when flood warning is announced.
DO NOT wait till water flows into house or reaches your knee.
- Get out of areas subject to flooding (e.g. drains, low spots, near riverbeds) and move to higher grounds.

During Flood

- Avoid already flooded and high velocity flow areas.
- DO NOT attempt to swim across a flowing stream.
- DO NOT drive through flooded roadways in case the roadbed is no longer intact.
- Stay away from power lines and electrical wires.
- If your vehicle stalls, leave immediately and seek higher ground.

After Flood

- Turn off the electricity when you return home
- Make sure that electrical equipment are dry before switching them on
- Watch out for snakes
- Be careful of broken glasses
- Be careful of gas leaks
- Throw out any food that has come in contact with flood waters (in case of contamination).
- Boil drinking water before use.
- Do not visit flooded areas unless you are there to help
- Report broken utility lines to authorities

REFERENCES

www.floodsafety.noaa.gov

www.fema.gov/hazard/flood/index.shm



Workbook 3: Prepare Before The Earthquake





Workbook 3: Prepare Before The Earthquake



Introduction

Disasters can strike quickly and without warning.

In case of an emergency, being prepared and knowing what to do can save time, property and lives. Simple actions can make a difference in the survival of our family, our students, and our neighbors. So let's start by getting ourselves prepared today.

1. What are Earthquakes?

An earthquake is a sudden, rapid shaking of the earth caused by the release of energy in the earth's crust. Earthquakes may cause loss of life and destruction of property.

During a strong earthquake the ground shakes violently. Buildings may fall or sink into the soil. Rocks and soil may move downhill at a rapid rate. Such landslides can bury houses and people.

2. What is the purpose of this workbook?

This workbook describes the educational program for earthquakes. It contains activities that students can perform to help themselves, their household, their school and their community prepare for earthquakes. It also includes information of the disaster as well as safety tips.

The goal is to increase earthquake awareness and help the students to be prepared and be able to protect themselves during an earthquake.

Hopefully, this workbook can help promote understanding that disaster preparedness is not accomplished overnight and it is never complete.

Program Structure



Before we begin, do you know...?

Q1: Have you experienced an earthquake before?

YES NO

Q2: Do you know what are the effects or impacts of earthquakes?

YES NO

Q3: Does your school have earthquake drills ?

YES NO

Q4: Does your family have a disaster plan?

YES NO

Q5: Do you know how to prepare an emergency supply kit?

YES NO

Q6: Do you know your community condition and residents well?

YES NO



Before we begin, do you know...?

Date Completed	Comments	Checked by



Level One

Activities and Guidelines



Level One		Monthly / Bi-Monthly	Semi-Annually	Annually
Priority Activities	Home	EL1-G. Mapping Your House and Preparing an Emergency Supply Kit		
	Community		EL1-D. Town Watching	
	School		EL1-A. Short Lecture and Movie Watching	EL1-C. Drawing and Essay Competition
Optional Activities	Home	EL1-B. Reading Newspapers and Discussion with Parents		
	Community		EL1-F. Neighborhood Meeting	
	School		EL1-E. Group Diary	

Activities Planner for Level One

★ Plan your activities and mark them on the calendar. Please consult your teacher and parents on the schedule. You may use the activity codes (example: EL1-A for “Short Lecture and Movie Watching”).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Week 1												
Week 2												
Week 3												
Week 4												
Week 5												

Level	Activity Site	Frequency	Activity Type
1	School	Semi-Annually	Priority

RATIONALE

Children can visualize an actual full-scale earthquake by watching movies. Visual tools are often more effective in creating an impact or leaving an impression to the one receiving it. Through movie watching,

students may have a clearer image of what they can expect during the actual situation.

PROCEDURE

EL1

Discuss with your classmates earthquake-related movies you know. Which one attracts you best? Exchange your ideas with other groups of classmates and list the titles of the films. Submit these titles to your teachers for their final selection.

DURATION

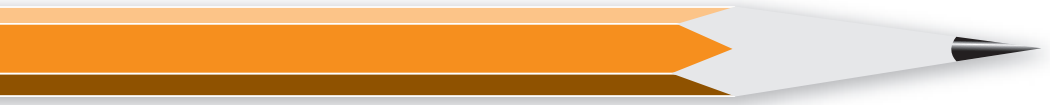
2 Hours

After selecting the movie, teachers should prepare a short lecture as an introduction to the movie .

SUGGESTED TOPICS

What is an earthquake?
 Why does an earthquake occur?
 Recent earthquake disasters.
 Places most likely to be destroyed by earthquakes.
 The severe impacts of earthquakes.

Students may write a short memo of their thoughts after the session



MEMO (Date, What I saw)

e.g. 30 Sep, 2009. Today, I saw a very impressive earthquake disaster movie. It showed how an earthquake destroyed Los Angeles. Before watching the documentary, the teacher gave us a simple explanation to help us understand the movie.

EL1

A

Short Lecture and Movie Watching

Date Completed	Comments	Checked by

Level	Activity Site	Frequency	Activity Type
1	Home	Bi-Monthly	Optional

RATIONALE

It is difficult for school children to imagine the impact of a disaster without having actual experience. Considering the tight curriculum, children may not acquire adequate

earthquake knowledge. Families can play a role in addressing this deficiency teaching children at home.

PROCEDURE

- Children will be required to read newspaper and magazines, regularly. If daily is difficult, weekly will be fine. This helps to improve reading ability as well as to cultivate the habit of being aware of public issues, especially earthquakes.
- Keep newspaper clippings.
- Choose the most interesting information and talk with family members.



Photo taken from <http://image.baidu.com>

DURATION

At least 1 hour per session

SUGGESTED TOPICS

- The latest earthquake that happened in my country, surrounding regions, etc.
- What's the most famous earthquake in history and how many people were killed? When and where did the most severe earthquake occur?

Family Members

- Generally, what kind of newspaper or magazine do you read?

- Lately, are there any striking news that caught your attention?

Paste your newspaper clippings in the box

EL1

B

Reading Newspapers and Discussion with Family Members

Date Completed

Comments

Checked by

--	--	--

Level	Activity Site	Frequency	Activity Type
1	School	Annually	Priority

RATIONALE

Competitions can be used to raise earthquake awareness and promote children's understanding of earthquakes.

At the same time, it gives teachers or the local officials the opportunity

to see from the students' perspective and understand the impact that the disaster have on the students.

PROCEDURE

EL1

Students are free to use their imagination. Students can either draw or write an essay to express their thoughts.

C

DURATION

1 Week

REFERENCES

<http://www.unisdr.org/asiapacific/ap-whatnew/ASEAN-Regional-Drawing-Competition.pdf>

<http://drh.edm.bosai.go.jp/database/item/d05d1926adfacd28dbb3d8db13275e1bf653877d>

POSSIBLE THEMES:

- Imagine and describe the situation before, during, and after an earthquake.
- Depict what may happen to you and your family after an earthquake.
- Think of how you can help to reduce the damage and mitigate the losses due to an earthquake.



Brainstorming Time:

Do you have some good ideas to share with your friends?

EL1

C

Drawing and Essay Competition

- All the students' drawings and compositions can be exhibited in school and good ones can be selected and published in the school journal. Meanwhile, excellent ones can be recommended to be published in newspapers or magazines to encourage the students and also heighten the interest of the public.

Date Completed	Comments	Checked by

Level	Activity Site	Frequency	Activity Type
1	Community	Semi-Annually	Priority

RATIONALE

To understand and develop concrete images of your community a field survey is necessary. This activity can help you prepare an evacuation route. Be sure to involve as many community members as possible.

MATERIALS

Base map, Digital camera, Sticky notes, Double-sided tape.
If you don't have digital camera, what can be use to take evidence?

EL1

- Writing materials (pens, pencils, different colored marker pens), clip board.
 - If needed, you may also bring snacks or lunch. What food and drink will you prepare?
-
-

D

Town Watching

PARTICIPANTS

In order to involve more stakeholders, who would you expect to invite? List possible participants and ask your teachers for advice.

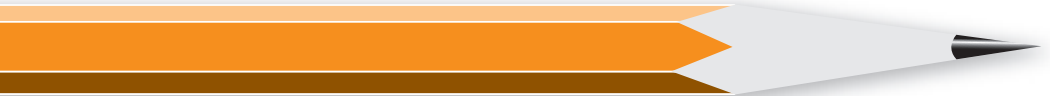
PROCEDURE

Preparation (venue, equipment) where would you suggest to gather the people and equipment for the presentation? Why?

DURATION 1 day

REFERENCE

Saijo Townwatching Handbook. Kyoto University, Saijo City. 2009



Orientation or explanation should be given to the participants before the field survey, providing students an idea of the survey site and what to look for during their field survey. Such as:

- Potentially dangerous places and safe places. What may hinder escape (e.g., waste dumped by the roadside)?
- Students to be divided into groups (approximately 6-8). A short meeting will be carried out whereby students can allocate the tasks among themselves. What else do you think should be discussed? Why?

- Field survey (observe the place, take pictures, keep notes)
- Lunch
- Mapping (mark the spots with explanation and pictures)
- Presentation (explain your group's map and answer questions)
- Wrap up

THINGS TO CONSIDER

- **Identify potential problems in the community (e.g., narrow roads, crumbling buildings, wire poles, dams, fire hydrants, etc.)**
- **Concerning this town watching, what can be improved ?**

Date Completed	Comments	Checked by

EL1

D

Town Watching

Level	Activity Site	Frequency	Activity Type
1	School	Semi-Annually	Optional

RATIONALE

This activity can be used to raise earthquake awareness. It is also a good way of enhancing cooperation and teamwork among the students.

PROCEDURE

- Group the students (5-10 students in a group)
- Each group will make its own diary
- Each group member will take turns to write one entry per day. They can be anything related to earthquake (e.g., paste pictures, newspaper clippings, proverbs, stories, even songs)
- Every 2 months students will select top 2 entries within their group and share with other groups.
- Teachers can ask all students to vote and select the best 3 among all the entries shared.

DURATION

- 1 hour

Suggested topics:

- My plan to learn about seismology, the causes and effects of earthquakes.
- What I have heard about earthquakes today.
- What I did at home about earthquake preparedness.
- What's the news related to earthquakes in the newspaper or on TV.



MEMO (Date, What I saw, what I thought)

e.g. 12th May, 2009. Today is the anniversary of Wenchuan, China Earthquake, tens of thousands of people died due to the disaster and still many people are homeless or living very poorly without proper housing. I am in deep sympathy, especially to the children.

My diary entry

EL1

E

Group Diary

Date Completed	Comments	Checked by

Level	Activity Site	Frequency	Activity Type
1	Community	Semi-Annually	Optional

RATIONALE

Students must know more about the neighborhood and community. Students must learn about historical

experiences and lessons learned from national or regional earthquakes.

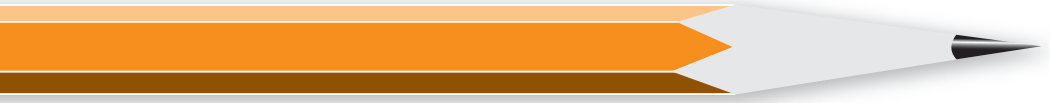
PROCEDURE

- Assemble the neighborhood to meet regularly (e.g., every 2 months). Do you know your neighbors well? Who are they? How many family members do they have? List these information and try to visit them one by one
- Acquire basic information through a questionnaire. Keep this data as a file in a portfolio. (Please prepare a questionnaire in advance. Think about what information you want to know about your neighbors.)

My own Questionnaire (What kind of information are important and helpful?)

DURATION

1 hour



Know the health condition of your neighbors. Also, know who are pregnant, who are handicapped, who are new to the area, and who would need special assistance in case there is an earthquake.

Information box	
Name:	Special Need
Name:	Special Need
Name:	Special Need
Name:	Special Need

- What would be your suggestions to help the community?
- Establish sound and friendly relationship with your neighbors.

THINGS TO CONSIDER

- Identify potential problems in the community (e.g., narrow roads, crumbling buildings, wire poles, dams, fire hydrants, etc). Discuss these with your neighbors to seek solutions.
- What else should be paid attention to and what can be improved from now on?

Date Completed	Comments	Checked by

EL1

F

Neighborhood Meeting

Level	Activity Site	Frequency	Activity Type
1	Home	Bi-Monthly	Priority

RATIONALE

Develop a concrete image of your house. Learn to work and discuss with family members to

protect you and your family in case of an earthquake.

PROCEDURE

Know your house. When was it built? If the building is old and run down, escape right away when the earthquake strikes. If it is strong enough, you can conduct the “drop, cover and hold on” at home.

Sketch our bedroom, living room, and layout of furniture.

Items include:

Hanging objects, heavy furniture, breakable glass wares, electrical appliance, gas burners, etc.

EL1

G

- When was our house built?

- Others?

- Do your parents consider your house strong enough? If not, please work together to find a solution. What can you and your parents do?

Note:

For the Emergency Kit, families should prepare the most applicable and available items according to the local situation

DURATION

2 hours



Sketch your bed room and living room here

- Find safe place in your home (e.g., bed, interior wall, sturdy table, etc.) **Mark them in Blue.**
- Identify potential dangerous places and objects near your house which may hinder your evacuation. **Mark them in Red**

Example of disaster supply kit at home

Are important documents, list of contact names and phone numbers, and valuable items placed in a safe and easily accessible place.	<input type="checkbox"/>
Is there an emergency kit for your family?	<input type="checkbox"/>
If yes, are the items in good condition?	<input type="checkbox"/>
For food items, are they within expiry dates?	<input type="checkbox"/>
List the items most useful to your whole family. Make sure you can get them locally.	<input type="checkbox"/>

EL1

G

Mapping Your House and Preparing an Emergency Supply Kit

Suggestions for home emergency kit

Water () Food () Radio () Flash light & extra batteries () First-aid kit () Whistles () Cash ()

Put a tick (✓) after checking and updating your Emergency Kit

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Date Completed	Comments	Checked by

Level One Evaluation: Poster Presentation

Level	Activity Site	Frequency	Activity Type
1	School	Annually	Priority

RATIONALE

In this whole year, students have learned many useful earthquake safety tips and conducted several activities. Requiring students to present and show what they have learned can trigger critical thinking among them as well as sharing

information about what they have learned with other students.

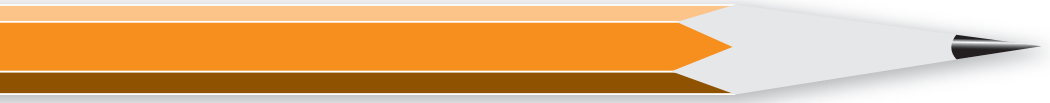
It is a good chance for the students to review on their whole year's work and how it has helped them.

PROCEDURE

EL1 Presentation can be done in a scrap book or poster with the following:

- What I have learned (like new knowledge, safety tips, etc.)
- What I have done (like mapping my house, etc.)
- Which is my favorite activity? Why?
- Which skill can help me, my family, and my friends the most?

- Paste your drawings and pictures to make your posters more attractive and interesting (like picture of the activity you conducted, snapshots of the movie you watched, picture of your emergency kit, picture of you and your friends surveying in the field, etc.)
- Present your poster to the class. See if you have space in the classroom where you can display your and your classmates' poster for a few days. Comment on each other's work.



Poster Draft

EL1

Level One Evaluation: Poster Presentation

Date Completed	Comments	Checked by

I've done it: Level One

Activities		Date Completed Comments, if any	Reviewer's Comments
Priority Activities			
EL1-A. Short Lecture and Movie Watching	<input type="checkbox"/>		
EL1-C. Drawing and Essay Competition	<input type="checkbox"/>		
EL1-D. Town Watching	<input type="checkbox"/>		
EL1-G. Mapping Your House and Preparing an Emergency Supply Kit	<input type="checkbox"/>		
Optional Activities			
FL2-G. Ensuring that Electrical Appliances are Unplugged	<input type="checkbox"/>		
EL1-E. Group Diary	<input type="checkbox"/>		
EL1-F. Neighborhood Meeting	<input type="checkbox"/>		
Level One Evaluation Poster Presentation	<input type="checkbox"/>		

EL1

I've done it: Level One



Level Two

Activities and Guidelines



Level Two

		Monthly / Bi-Monthly	Semi-Annually	Annually
Priority Activities	Home	EL2-F. Family Conversation and Household Checklist		EL2-B. Family Outdoor Cooking
	Community			EL2-D. Organizing and Acting in a Play
	School		EL2-A. Earthquake Evacuation Drill	
Optional Activities	Home			EL2-G. Arranging and Securing Furniture for Safety
	Community		EL2-E. Neighborhood Survey	
	School			EL2-C. Survival / Disaster Preparedness Sports Meet

Activities Planner for Level Two

★ Plan your activities and mark them on the calendar. Please consult your teacher and parents on the schedule. You may use the activity codes (example: EL2-A for “Earthquake Evacuation Drill”).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Week 1												
Week 2												
Week 3												
Week 4												
Week 5												

Level	Activity Site	Frequency	Activity Type
2	School	Semi-Annually	Priority

RATIONALE

Students need to learn skills to survive an earthquake. These skills must be reinforced regularly so that students will not panic when an earthquake hits. Students can apply the knowledge gained in Level 1 by designing their own evacuation plans

and conducting them. Everyone has to be reminded of disasters so that we don't forget easily and become too lax.

PROCEDURE

EL2

1. If your place already has an earthquake memorial day and a date to conduct drills, please go to step 3. Otherwise conduct a group discussion and vote on an earthquake evacuation drill day. Please consider 2 dates. The interval should be half a year.

Your suggestions and reasons:

2. Teachers can collect the suggested dates and make the decision on the dates. Keep in mind that school should conduct this drill twice a year.

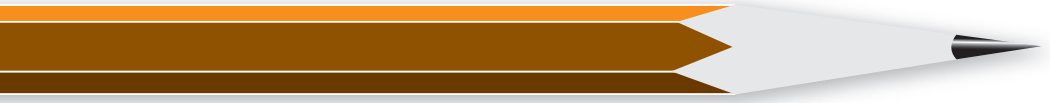
**What's your Teacher's decision?
What dates are they?**

3. Based on the learning in Level 1, students should have knowledge already about how to react when an earthquake strikes. Assume that an earthquake hits when you are in different locations (e.g., classroom, play ground, public area, or home).

**Based on your assumed location,
draft a drill plan on the next page.**

DURATION

2 hours



Sketch a map of your evacuation route below:

**Which drills are decided to be conducted in your class?
Take notes about these drills.**

Date Completed	Comments	Checked by



EL2

A

Earthquake Evacuation Drill

Level	Activity Site	Frequency	Activity Type
2	Home	Annually	Priority

Let's boil hot water with empty cans.

RATIONALE

People many have to face the situation when there is no way to prepare food the usual way, like after an earthquake. So students have to be prepared for this situation.

Enjoy this good opportunity to learn something with your family.

MATERIALS

Two aluminum cans, three empty 1L milk cartons or wood sticks, aluminum foil, 180ml of water, work gloves, lighter, scissors, a metal cutter, and a can opener.

What else can you prepare as boiling container and fuel? Make sure they are easy to get after an earthquake.

PROCEDURE

- Aluminum cans:
- 1. **STOVE:** Take off the upper lid and make 4 holes (3 x 2 cm each).
- 2. **KETTLE:** Take off the upper lid of another can.
- Milk carton box or wood sticks : **FUEL:** Cut them into 2 cm wide rectangular strips as fuel

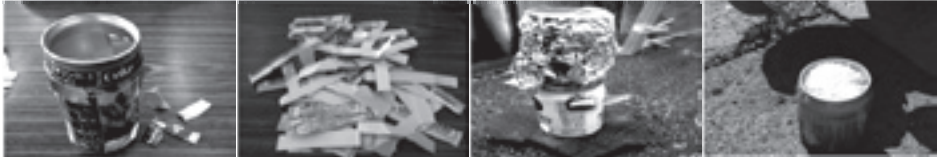
Put water into the **KETTLE** can, cover the can firmly with the foil, ignite the strips for 8-10 minutes and you will have hot water for cooking instant noodles, porridge, or rice.

Watch out

Burn the stripes one by one. Wear thick gloves. Refer to http://www.bousainavi.info/cat_500/510.html

DURATION

1 hours



International Saba-meshi Society (ISS)
http://www.sabameshi.com/files/20070731secret_of_saba.pdf

THINGS TO CONSIDER

Imagine your city is suffering from an earthquake. What would you eat? How would you save water and make the best use of limited food?

Discuss with family members how to get local food after disasters?

Come up with another way of preparing food in case of disasters:

MATERIALS

(Make sure they are easy to get after an earthquake.)

PROCEDURE

Take some pictures



Date Completed	Comments	Checked by



EL2

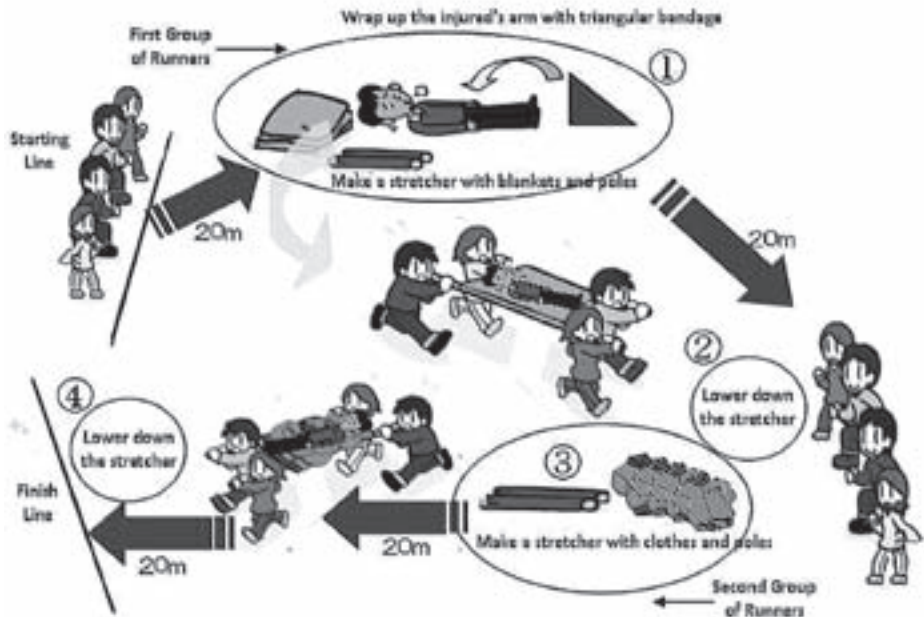
B

Family Outdoor Cooking

Level	Activity Site	Frequency	Activity Type
2	School	Annually	Optional

RATIONALE

In order to conduct self-protection and mutual rescue, simple medical care knowledge and team work are necessary. Students can get education and fun at the same time



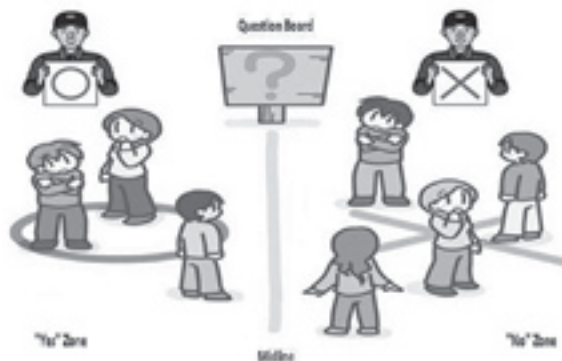
1. Stretcher Carrying Games: 9 students per team.

- First, 4 students run for 20m and stop to make an emergency stretcher using poles and blankets to carry an injured person.
- They will carry the injured person and run for another 20m to their team members.
- The 4 team members will make another emergency stretcher using poles and clothes. The injured person is transferred to the new stretcher
- They run the last 20m to end the relay.
- The time is noted.



2. Buckets Relay: 16 students per team.

- 8 people will pass the bucket that is full of water, crossing 3 hurdles, to put out the fire
- The other 8 members pass the empty bucket back, crossing 2 obstacles.



3. Common Sense Quiz:

- 2 teachers hold a board with Circle (correct) and Cross (wrong) respectively .
- 10 questions regarding earthquakes will be asked and students will determine if its correct or wrong.
- They will leave the game if they answered incorrectly.
- At the end of the 10 questions, whoever is still in the game wins.

DURATION: 2 hours

Refer to <http://www.city.himeji.lg.jp/syoubou/plaza/undoukai/index.html>

Date Completed	Comments	Checked by



EL2



Level	Activity Site	Frequency	Activity Type
2	Community	Annually	Priority

RATIONALE

After students are well prepared and are proficient with earthquake knowledge, they should try to share what they know with their neighbors. This way they can contribute to

reinforce the social capacity against future disasters .

This can be an opportunity to involve the community more in earthquake preparedness activities.

PROCEDURE

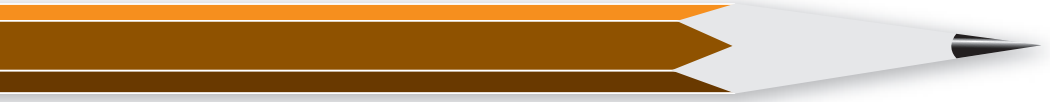
Each class has to organize a play which can be a drama, comedy, thriller, musical, dance, etc. There is no limitation on the style but it has to relate to earthquake.

Discuss with your classmates your topic and preferable elements to put into the play. Please outline the story below.

DURATION

1 Month

Topic: _____
Style: _____



Teachers may help create or select the play (e.g., what might happen before, during, or after an earthquake) Conceive some good stories with this topic.

Teacher's opinion

If you need to invite 2 persons in the community to watch the play, who do you want to invite? Why?

Choose the public theater, school studio, or assembly room so you will have enough room for a large audience. You can sell tickets and the revenue can be used as earthquake fund or to contribute in reinforcing and retrofitting the school building or local cultural heritage sites.

THINGS TO CONSIDER

- After the play, discuss with friends what they learned.

- Give your suggestions for improvement on how to incorporate disaster elements and procedures applicable to local condition in your class's play.

Date Completed	Comments	Checked by



EL2

D

Organizing and Acting in a Play

Level	Activity Site	Frequency	Activity Type
2	Community	Semi-Annually	Optional

RATIONALE

Identifying structural and non-structural risks can help the community prepare for earthquakes.

Knowing about existing risks will allow residents to take the necessary precautionary and corrective actions.

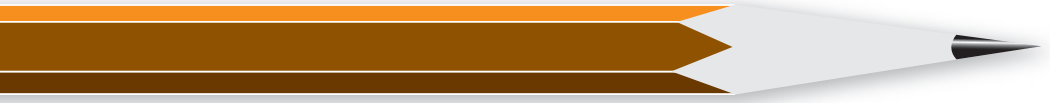
PROCEDURE

Develop a questionnaire to collect information from families in the neighborhood. You may consult with your teachers, construction engineers, architects, geologists, rescue workers, etc. on what details are important to know. Visit your neighbors and together you list down the risks in your neighbors'

house and discuss how they can be addressed. Risks include things that can fall in an earthquake and hurt someone, block an emergency exit, or damage other belongings. Take note of your neighbor's proposed measures and share also what you have learned in school.

Survey Questionnaire

DURATION 1 day



After surveying the neighborhood, hypothesize the effects of a major earthquake based on the information you have gathered. Would a major earthquake affect the entire community the same way, or would the effects be different depending on the location of houses (type of soil in the area, whether the area is hilly or flat, etc.), the construction materials used, the preparedness of household members, etc.?

Also, evaluate your neighbors on a scale of one to five, using these questions as criteria:

- Did the neighbor participate actively in the survey?
- Does the neighbor know about earthquakes and their possible impacts?
- Can the neighbor correctly identify earthquake risks inside and outside their house?
- Do you think the neighbor is at risk to earthquakes?

Write your own criteria here:

What are the things you need to include in your next neighborhood survey? Can you suggest ways on how you and your neighbors can better prepare for earthquakes?

Date Completed	Comments	Checked by



EL2

E

Neighborhood Survey

Level	Activity Site	Frequency	Activity Type
2	Home	Monthly	Priority

RATIONALE

Knowledge about earthquakes and disaster education in schools can be disseminated by students to their family members.

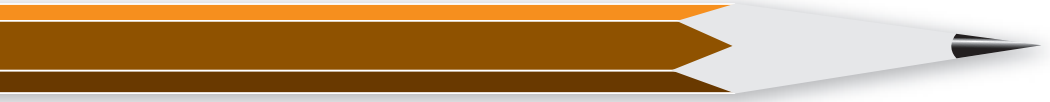
This can contribute in building a culture of safety and disaster resilience.

PROCEDURE

EL2
F 1. Identify potential hazards in your home (e.g., hanging objects, objects on open shelves and table tops, furniture and electronic appliances in the kitchen, water and gas pipes, storage areas, etc.)

2. Create a disaster-preparedness plan. Decide on two places to meet after a disaster. After determining these meeting places, learn lifesaving actions, stay informed, consider buying earthquake insurance, develop a business recovery plan if you have a family business, keep separate copies of important records, etc.

3. Protect yourself during an earthquake. What should you do (a) if you are indoors, (b) if you are outdoors, (c) if you are commuting?



THINGS TO CONSIDER

Let's try to make our own check list. For instance

1. Place beds so that they are not next to large windows, below hanging lights, below heavy mirrors, below framed pictures, below shelves with lots of things that can fall, etc.
2. Replace heavy lamps on bed tables with light, non-breakable lamps.
3. Use closed hooks when hanging plants, lamps, etc.
4. Remove all heavy / breakable things from high shelves.
5. Take glass bottles out of medicine cabinets and put on lower shelves.

How many items can you think of? Please list them below thoroughly, discuss them with your parents, and check them annually.



EL2

F

DURATION: 1 hour

Date Completed	Comments	Checked by

Level	Activity Site	Frequency	Activity Type
2	Home	Annually	Optional

RATIONALE

Students have gained basic safety knowledge from Level One and the priority activities in Level Two.

Let's apply our knowledge to create a safer home.

PROCEDURE

Read home activities in Level One and Two again.

First of all, identify the potential non-structural hazards in your own bedroom, according to the map of your room you sketched in Level One.

- Attach or fasten furniture that fall easily, e.g., book shelves
- What else should be fastened?

In the bedroom

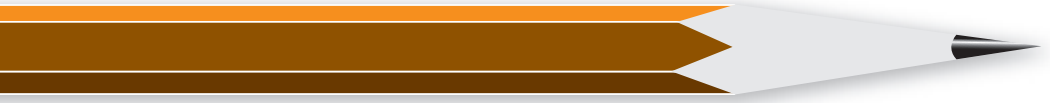
- Notice the hanging objects such as ceiling lamps, etc.

- Transfer breakable things like mirrors to safer areas.
- What else should be transferred?

- Place beds so that they are not next to large windows.
- What else should be moved?

- Move materials that can easily catch fire or explode so they are not close to heat sources, e.g., fireworks, etc.
- What else should be kept away?





In the living room

• What should we pay attention to?

In the bath room

• What should we pay attention to?

Re-sketch your bed room and living room after the rearrangement. Compare it with the original one in LEVEL ONE

DURATION: 1 hour

Date Completed	Comments	Checked by



EL2



Level Two Evaluation: Poster Presentation

Level	Activity Site	Frequency	Activity Type
2	School	Annually	Priority

RATIONALE

In this whole year, students have learned many useful earthquake-safety tips and conducted several activities. Requiring students to present and show what they have learned can trigger critical thinking among them as well as sharing

information about what they have learned with other students.

It is a good chance for the students to review on their whole year's work and how it has helped them .

PROCEDURE

EL2

Presentation can be done in a scrap book or poster with the following:

- What I have learned in Level Two (like new knowledge, safety tips, etc) Please tell us something different from what you learned in Level One.
- What was I able to do? (For example, the home conversation and coming up with household checklist)
- Which is my favorite activity? Why?
- Which skill can help me, my family, and friends the most?

Paste your drawings and pictures to make your posters more attractive and interesting (like picture of the activity you conducted, snapshots, picture of your emergency kit, picture of you and your friends doing the neighborhood survey, comments from your teacher and neighbors, etc.)

Present your poster to the class. See if you have space in the classroom where you can display your and your classmates' poster for a few days. Comment on each other's work. You may select good posters to be exhibited in other schools or in the community's hall. The students whose product received best comments may be selected to give a speech to other students in school.



Poster Draft



EL2

Level Two Evaluation: Poster Presentation

Date Completed	Comments	Checked by

I've done it: Level Two

Activities		Date Completed Comments, if any	Reviewer's Comments
Priority Activities			
EL2-A. Earthquake Evacuation Drill	<input type="checkbox"/>		
EL2-B. Family Outdoor Cooking	<input type="checkbox"/>		
EL2-D. Organizing and Acting in a Play	<input type="checkbox"/>		
EL2-F. Family Conversation and Household Checklist	<input type="checkbox"/>		
Optional Activities			
EL2-C. Survival / Disaster Preparedness Sports Meet	<input type="checkbox"/>		
EL2-E. Neighborhood Survey	<input type="checkbox"/>		
EL2-G. Arranging and Securing Furniture for Safety	<input type="checkbox"/>		
Level Two Evaluation Poster Presentation	<input type="checkbox"/>		



I've Done It: Level Two



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