

What's the Plan Stan?

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*"Visit our website
www.whatstheplanstan.govt.nz"*

Ana

Matt

Dan

Frankie

Beth

Stan



1.1 Welcome to *What's the Plan Stan?*

New Zealand lies in the Pacific 'Ring of Fire', a zone that encircles the base of the Pacific Ocean, making us particularly vulnerable to natural disasters such as earthquakes and volcanic eruptions. As an island nation in the 'roaring forties' (temperate latitudes between 40 degrees south and 50 degrees south), we are also exposed to the risk of tsunami, storms and flooding. In addition, other hazards such as fire, pandemic or terrorism have the potential to cause widespread damage and to take lives.

While we cannot prevent disasters, it is important to understand the hazards we face, what they can do, and the steps we can take to ensure we keep safe and recover quickly. Experience around the world has shown that where people are aware of the risks around them and plan their response, the injuries, damage and subsequent trauma are significantly reduced.

What's the Plan Stan is a Ministry of Civil Defence & Emergency Management initiative for primary and intermediate schools, featuring Stan the dog and five children – Dan, Ana, Frankie, Matt and Beth – who model what to do to be better prepared and respond safely in a disaster event.



"Disasters can strike at any time, and often without warning. Will you and your students know what to do?"

1.2 Purpose of this resource

What's the Plan Stan seeks to improve awareness and understanding of the hazards we face in New Zealand. It also promotes emergency preparedness in primary and intermediate schools by providing teachers and students with the knowledge and skills to act in a safe manner when a disaster occurs.

Your students' increased awareness and understanding may also prompt their parents, families and communities to be better prepared.

What's the Plan Stan focuses on:

- earthquakes
- tsunami
- volcanoes
- storms
- floods
- non-natural disasters.

What's the Plan Stan is aimed at:

- **teachers** – providing a range of resources to enable you to incorporate disaster awareness and preparedness into your teaching and learning approaches.
- **principals, school management and Boards of Trustees** – assisting you with your school's civil defence emergency management planning processes.
- **students and their families** – providing relevant information in a format that is interesting, easy to understand and accessible on a dedicated website.

1.3 What's in this resource?

The 2009 edition of *What's the Plan Stan* consists of a new teachers' guide and CD-Rom that are aligned with the New Zealand Curriculum. These replace the first edition of *What's the Plan Stan* teachers' guide and CD-Rom that were sent to all schools in 2006, and the upgraded CD-Rom that was sent in 2007.

Teachers' guide

The *What's the Plan Stan* teachers' guide includes the following sections:

Section	Summary of content	Page
1: Introduction	Purpose, content summary, how to use this resource	3
2: Disaster awareness in your school	Why use <i>What's the Plan Stan</i> in your school? – <i>understand the important role that the school plays in disaster awareness and preparedness</i>	9
	Who supports <i>What's the Plan Stan</i> in your school? – <i>identify various people and organisations who will support effective disaster awareness and preparedness in your school</i>	10
	What can principals and management teams do?	11
	What can Boards of Trustees do?	11
3: Teaching and learning resources	<i>What's the Plan Stan</i> and the New Zealand Curriculum – <i>how this resource fits with the curriculum</i>	13
	Teaching and learning approaches – <i>descriptions of different approaches</i>	14
	Assessment ideas	14
	Unit plans and overview – <i>junior, middle and senior that can be used as is, or altered to suit the needs of students</i>	14
	Inquiry model and template – <i>an example of how an inquiry around disaster preparedness might look</i>	48
	Cross-curricular activity ideas	50
	Activity sheets and homework ideas – <i>stand-alone activities relating to different disasters</i>	51
	Disaster fact sheets – <i>information about different types of disasters, and what to do before, during and after such events</i>	58
4: Practices and simulations	Practices and simulations – <i>for single classes through to the whole school</i>	67
5: Templates and resources	Templates – <i>to accompany teaching and learning activities in the unit plans, practices and simulations</i>	75
	List of other resources	99
	Glossary	104
	What if ... cards – <i>you can press these cards out and store them in the plastic folders provided</i>	



CD-Rom

The *What's the Plan Stan* CD-Rom has two main sections:

Section	Content
Teachers	Word and PDF files of the teachers' guide, unit plans and templates for printing and adapting
	More detail on some sections of the teachers' guide
	Links to websites and organisations
	Ideas for using the CD-Rom with students
Students	Facts on earthquakes, tsunamis, volcanoes, floods, storms and other disasters
	Map and information on historic disasters in New Zealand
	Photographs and video clips
	Interactive stories, quizzes and games



Website

The *What's the Plan Stan* website has two main sections:

Section	Content
Teachers	Word and PDF files of the teachers' guide, unit plans and templates for printing and adapting
	More detail on some sections of the teachers' guide
	Links to websites and organisations
Students	Facts on earthquakes, tsunamis, volcanoes, floods, storms and other disasters
	Map and information on historic disasters in New Zealand
	Photographs and video clips
	Interactive quizzes

Other What's the Plan Stan resources

Although this teachers' guide and CD-Rom are intended to replace the previous version published in 2006, the following resources sent to schools in 2007 and 2008 can still be used.

Story book

The illustrated story book contains five stories in which Stan and his friends cope with earthquakes, volcanic eruptions, tsunami, floods and storms. Each story is followed by a checklist of what to do before, during and after a disaster.



This story book was sent to all schools in 2007. They can also be downloaded from the CD-Rom and the website.

Audio CD

The audio CD enables children to listen to the above stories. It was sent to all schools in 2007. The audio story files can also be downloaded from the CD-Rom and the website.



Kia Takatū

Kia Takatū is a version of *What's the Plan Stan* in Te Reo Māori, and comprises a handbook for teachers, a CD-Rom, and an audio CD. It is designed to be used in Māori language immersion and bilingual schools, and can also be used at home and in the community.




The stories in the handbook and on the audio CD provide a Māori world view of earthquakes, volcanic eruptions, tsunami, floods and storms. Each story concludes with information on what to do before, during and after a disaster.

The audio CD is suitable for younger listeners as well as the target audience of 7–12 year-olds.

1.4 How to use this resource



What's the Plan Stan is designed to be used by teachers, principals, school management, Boards of Trustees, students and their parents/caregivers/whānau as described below.

Who	How to use this resource
Teachers	<p>Sections 2.1 and 2.2: Using <i>What's the Plan Stan</i> in your school and classroom.</p> <p>Section 3: Include disaster awareness education teaching in your class curriculum. Includes:</p> <ul style="list-style-type: none"> • information on planning and implementing curriculum-based disaster awareness education • a description of various teaching and learning approaches • unit plans, an inquiry model, related cross-curricular lessons, activities and homework ideas. <p>Section 4: Plan and run classroom practices and simulations to ensure students, school and parents/caregivers/whānau are ready and know what to do in a disaster. Includes:</p> <ul style="list-style-type: none"> • emergency response practice • evacuation exercise • disaster simulation. <p>Section 5: Print templates of the worksheets and other resources that accompany the activities in this book.</p> <p>Use the list of other resources to identify further reading.</p> <p><i>Note: You can download all the above from www.whatstheplanstan.govt.nz or CD-Rom to cut and paste into your documents.</i></p> <p>Getting started:</p> <ul style="list-style-type: none"> • Plan your teaching and learning to suit the needs of your students using the unit plans as an example. • Place the <i>What if</i> cards inside the plastic sleeves (these have been duplicated in Template 1, pages 76-79 so you can photocopy and make further cards if required). • Suggest to the person responsible for IT in your school that the CD-Rom be loaded onto school computers or intranet.
Principals and management teams	<p>Section 2: Obtain information about disaster awareness and preparedness in the school.</p> <p>Section 4: Plan and run school-wide practices and simulations to ensure students, school and parents/caregivers/whānau are ready and know what to do in a disaster. Includes:</p> <ul style="list-style-type: none"> • emergency response practice • evacuation exercise • disaster simulation. <p>Getting started:</p> <ul style="list-style-type: none"> • Share <i>What's the Plan Stan</i> at a staff or syndicate meeting or display the resources in the staffroom. • Arrange to load the CD-Rom onto your school computers or intranet, so teachers and students can access these resources straight away. • Inform parents/caregivers by using the school newsletter or website.

Who	How to use this resource
Boards of Trustees	Use Section 2.4 to obtain information specifically for Boards of Trustees about disaster awareness and preparedness in the school.
Students and parents/ caregivers/ whānau	<p>Material for students is included throughout the <i>What's the Plan Stan</i> teaching and learning resources. In many cases, students are required to take these home and share them with parents and caregivers.</p> <p>Students who wish to investigate further could explore the activities and information provided in the students' section of the website www.whatstheplanstan.govt.nz , or read the <i>What's the Plan Stan Stories</i> book provided to all schools in 2007.</p>

1.5 Helpful symbols

The following symbols are used throughout this guide to indicate where the *What's the Plan Stan* website and CD-Rom can be used:

- *What's the Plan Stan* website www.whatstheplanstan.govt.nz 
- *What's the Plan Stan* CD-Rom 

1.6 Acknowledgements

The Ministry of Civil Defence & Emergency Management thanks the teachers and schools involved in this revision of *What's the Plan Stan*: Kerry Annett, Sue Charmley, Mark Creba, Claire Hughes, Sarah Laugesen and Erin Simpson.

We also thank those teachers who were involved in the original development and trials of *What's the Plan Stan*: Kerry Annett, Sue Charmley, Deanne Daysh, Michael Earl, Chris Gore, Nyree Hanna, Karen Hardie, Claire Hughes, Hilary Johnson, Gregg Le Roux, Karen Lindsay, Heather McAllister, Catherine McCaffery, Ashley McCrostie, Sarah McMullan, Diana Nelis-Smith, Runnitty Peteru, Brett Ryan, Tania Shand, Lenka Simpson, Robyn Speller, Dale Van Waveren and Jenny White.

Special thanks to those civil defence emergency management staff from around the country who have assisted the development and revision of *What's the Plan Stan* in various ways.

What's the Plan Stan was written and developed by Educating NZ.

2.1 Why use *What's the Plan Stan* in your school?

Civil defence emergency management

The civil defence emergency management strategy for achieving resilience to disasters is through a risk management approach based on the four Rs – Reduction, Readiness, Response and Recovery.

This approach starts with recognising the hazards we face and the vulnerability of our communities and infrastructure to those hazards. By addressing how these hazards could affect us, the focus moves to measures for reducing the risks and for managing the impacts when they occur.

Reduction	Reducing the effects of hazards as far as practicable.	Reduction and readiness deal with how we manage the risk and the hazards.
Readiness	Being prepared to deal with disasters when they happen.	
Response	Responding appropriately.	Response and recovery deal with how we manage the disaster and its ongoing effects.
Recovery	Recovering as quickly as possible after the event.	

Education programme for schools

Schools are well placed to play a role in building better prepared communities. Involving students in an educational programme that focuses on disaster awareness and preparedness will help better prepare and provide the skills to act in a safe manner during an event. Their increased awareness and understanding may also prompt their parents/caregivers, families and whānau to be better prepared.

What's the Plan Stan will help students:


- improve their knowledge and understanding of the hazards we face in New Zealand
- learn how to be better prepared to deal with disasters
- know what they should do in the event of a disaster.

What's the Plan Stan also helps your school take advantage of the opportunities presented in the New Zealand Curriculum. It does this by:

- aligning with the curriculum's vision of what we want for young people, particularly around being confident, connected, actively involved and lifelong learners
- encouraging the curriculum values of community and participation
- supporting the principle of community engagement
- providing an authentic framework for teachers to design learning opportunities which engage students in tasks that develop the key competencies, while working towards the aims of disaster awareness education
- fitting naturally in the learning areas of Health and Physical Education, Social Studies, Science and English and used as a context for an integrated learning approach, including across other learning areas (Mathematics, Technology, The Arts and Learning Languages) and in LEOTC.

2.2 Who supports *What's the Plan Stan* in your school?

Using *What's the Plan Stan* effectively in your school's teaching and learning programmes requires the support and involvement of various people and organisations besides the classroom teacher.

Who can support you	How they can help
Emergency management coordinator	<p>Your school may have a staff member who is responsible for emergency management in the school. This could be the health and safety coordinator (some responsibilities do overlap) or it could be a separate role.</p> <p>The emergency management coordinator is responsible for ensuring the school is ready for an emergency. Their tasks might include identifying hazards, developing emergency plans, reviewing policies and procedures, and conducting practices.</p> <p>Some local authorities have emergency management staff who work with schools in their area. Check with the Emergency Management Office at your local council to find out what support is available for your school.</p>
Principal and management team	<p>Principals and management teams can ensure their school's commitment to <i>What's the Plan Stan</i> by incorporating it into management practices and systems (see Section 2.3).</p>
Board of Trustees	<p>The Board of Trustees can help implement <i>What's the Plan Stan</i> at a governance level, through resourcing, eliciting parental views, adopting and reviewing emergency policies and procedures, and providing opportunities and facilities for practices to take place (see Section 2.4).</p>
Parents/ caregivers, whānau and the community	<p>Teachers will be aware of the importance of gaining parental support and co-operation when working with students on <i>What's the Plan Stan</i>. Students can help communicate with parents/caregivers and whānau about the importance of being prepared and knowing what to do in a disaster. They can share their knowledge, skills and understanding with their parents/caregivers and whānau.</p> <p>Dealing with students' fears and anxieties following and throughout a disaster event is crucial for those who have responsibility for a child, whether it be parents, family, whānau or teachers. A child may not understand such events (or even practising for them) and may feel confused, anxious or frightened.</p> <p>If parents/caregivers, whānau, teachers and other community members can approach this task together, reinforcing what is taught at school and vice versa, it helps to reassure students that they will know what to do and are more likely to be safe in the event of a disaster.</p> <p>Every family member needs to be involved so they know what to do when a disaster strikes. Civil defence advice is for individuals and families to be prepared to look after themselves for at least three days. Are families in your school community prepared?</p>
Civil Defence Emergency Management groups/local authorities	<p>Each of the Civil Defence Emergency Management (CDEM) groups located throughout New Zealand can be viewed as a consortium of local authorities in a region, working in partnership with emergency services, lifeline utilities, volunteer agencies and government departments.</p> <p>They have a responsibility to prepare CDEM Group Plans to manage regional hazards and risks, and form the foundation of emergency management in New Zealand.</p> <p>The nearest local authority is the first point of contact for schools requiring assistance with emergency management planning. Use the 'who to contact' section on www.whatstheplanstan.govt.nz  for a list of local council websites.</p>

Who can support you	How they can help
Ministry of Civil Defence & Emergency Management	<p>The Ministry of Civil Defence & Emergency Management aims to make New Zealand and its communities resilient by understanding and managing their hazards. It does this by working closely with CDEM groups, central government agencies, emergency services and lifeline utilities involved in civil defence emergency management. The aim is to ensure a coordinated approach, at both national and community level, to planning for reduction, readiness, response, and recovery.</p> <p>You can find out more about the Ministry of Civil Defence & Emergency Management at www.civildefence.govt.nz.</p>
Ministry of Education	<p>The Ministry of Education has a number of useful resources:</p> <ul style="list-style-type: none"> • <i>Worksafe at Schools – Emergency Management</i> – guidelines on civil defence planning for schools, providing emergency response templates for developing plans to react to emergency situations. • <i>Traumatic Incident Management Support for Schools and ECE Services</i> <p>You can find both of these documents on the Ministry of Education website: www.minedu.govt.nz</p>

2.3 What can principals and management teams do?

Principals and management teams have a key role to play in any school-wide initiative. Their leadership and enthusiasm directly affects staff and students. It is ideal if the principal and management team implement policies and procedures for preparing and practising civil defence emergency procedures.

Principals and management teams can ensure their school's commitment to *What's the Plan Stan* by incorporating it into management practices and systems. They can lead their staff in school-wide planning for disasters and provide further leadership through:

- developing and reviewing policy
- inviting parents/caregivers, whānau and community members to the school to share learning experiences
- developing emergency response plans and training
- holding emergency drill practices and revising plans
- involving the whole school in *What's the Plan Stan* and considering the learning needs of students
- consulting with the community

- generating discussion around emergency practices in their schools by exploring questions, such as:
 - What level of disaster preparation do the children in our school engage in?
 - How do we enable children in our school to be prepared for a disaster?
- arranging for the purchase, storage and maintenance of emergency supplies and equipment
- maintaining liaison with the Emergency Management Officer at your local council and with emergency services.

2.4 What can Boards of Trustees do?

Legislative and regulatory requirements

The Board of Trustees is legally required to provide effective emergency procedures and planning to ensure the safety of all students and staff. A policy is needed to ensure these plans are regularly reviewed and tested for adequacy and effectiveness.

The Health and Safety in Employment Act 1992 is a comprehensive document that sets out requirements for the Board of Trustees to ensure the safety of everyone in the workplace. Schools can access this document through:

www.legislation.govt.nz.

As part of the Board of Trustees' safety obligations, schools need to have emergency evacuation procedures in place. There are specific regulations in relation to fire drills that are set out in the Fire Safety and Evacuation of Buildings Regulations 1992 (www.legislation.govt.nz, click on regulations then the letter F). These state that schools must have a fire evacuation procedure and carry out fire drills every term.

A process needs to be in place to ensure all fire extinguishers are current, fire alarms are working and all fire exits have a prominent sign and are kept free of obstructions.

National Administration Guideline 5¹ states that each Board of Trustees is required to:

- i. *provide a safe physical and emotional environment for students*
- ii. *comply in full with any legislation currently in force or that may be developed to ensure the safety of students and employees.*

When the Education Review Office conducts school reviews they may ask questions relating to civil defence emergency management, or they may ask to view your emergency planning. Examples of the type of questions they may ask include:

- Has the BOT prepared plans that will enable the school to continue functioning during or after a national or local civil defence emergency?
- Has the BOT had occasion to undertake civil defence measures, or to perform functions or duties in relation to civil defence, since the last

Education Review Office report?

- Has the BOT ensured systematic identification and remedying of existing and potential hazards?

Involvement at a governance level

The Board of Trustees can be involved in implementing *What's the Plan Stan* at a governance level by:

- resourcing and supporting management's decision to implement *What's the Plan Stan* within the school
- surveying parents/caregivers and consulting with whānau to seek their views about incorporating emergency practices and procedures into the school programme
- adopting an emergency policy and procedures
- reviewing current policies to ensure they reflect the school's commitment to emergency policy and procedures
- providing opportunities and facilities for their employees to practise for disasters.

¹ Ministry of Education, *The National Administration Guidelines (NAGs)* [online], available www.minedu.govt.nz.

3.1 Planning and implementing curriculum-based disaster awareness education

What's the Plan Stan and the New Zealand Curriculum

The New Zealand Curriculum sets the direction for teaching and learning in schools, outlining the values, key competencies and outcomes that your school must take into account when designing your own curriculum; and the principles on which you will base your decisions.

Vision

What's the Plan Stan aligns with the New Zealand Curriculum's vision of what we want for young people, particularly regarding them being:

- **confident** – resourceful and resilient enough to cope with disasters
- **connected** – aware of hazards around them, and being responsible members of their communities through helping to reduce the risk of disasters
- **actively involved** – participating and contributing to the well-being of New Zealand by being prepared for disasters
- **lifelong learners** – making informed decisions to keep themselves and others safe from disasters throughout their lives.

Values

Of the values set out in the curriculum, *What's the Plan Stan* especially encourages **community and participation** to help be better prepared for disasters. Schools are at the heart of the community, and in some cases are Civil Defence Centres or Sector Posts.

Principles

When making decisions about your school's local curriculum, *What's the Plan Stan* is consistent with the New Zealand Curriculum's principle of **community engagement**. It has meaning for students, connects with their wider lives, and engages the support of their families, whānau and communities. The resource has been developed by teachers working together with national and local civil defence emergency management staff.

"Disaster Awareness Week is observed the week of the second Wednesday in October each year. Visit www.civildefence.govt.nz for further information."

Key competencies

These are the competencies required to live, learn, work and contribute as active members of their communities:

- Thinking
- Using language, symbols and texts
- Managing self
- Relating to others
- Participating and communicating.

Links can be made between disaster awareness education and all five of the key competencies. In particular, there is a strong link to **managing self**.

What's the Plan Stan provides a framework for teachers to design learning opportunities that engage students in tasks that develop these key competencies, while working towards the aims of disaster awareness education. It offers authentic, wide ranging and increasingly complex contexts that students need in order to be challenged.

Learning areas

What's the Plan Stan fits well under the following learning areas:

- **Health and Physical Education:** *Safety Management*
- **Social Studies:** Conceptual strands – *Identity, Culture and Organisation* and *Continuity and Change*



- **Science:** *Nature of Science and Planet Earth and Beyond*
- **English:** *Listening, Reading and Viewing; and Speaking, Writing and Presenting*

Disaster awareness education can be a context for an integrated learning approach, including across other learning areas (Mathematics, Technology, The Arts and Learning Languages) and is suitable for use in LEOTC.

3.2 Teaching and learning approaches

There are a variety of teaching and learning approaches that could be used to deliver disaster awareness education.

Unit of work

What's the Plan Stan includes three units of work. Each unit has a selection of activities that can be mixed and matched to meet your own learning intentions or school focus. Some activities require the use of pictures or other resources, many of which are available on www.whatstheplanstan.govt.nz  and the CD-Rom .

Context for inquiry learning

Disaster awareness education provides a rich learning context for inquiry learning as it provides opportunities for students to build their knowledge as they engage with their community, while investigating answers to their questions and reflecting on their learning.

What's the Plan Stan lends itself to this approach and a sample plan is provided (page 49).

Incidental teaching moments

During any planned teaching and learning experience or unit there are often times when an unplanned incident or a current local, national or overseas event may impact on students' lives or arouse their curiosity.

These moments create opportunities for teachers to enhance the relevance of new learning and integrate it with what students already know. Incidental teaching moments are usually of short duration and are not deliberately planned or formally assessed.

Incidental teaching moments can reinforce knowledge, skills or attitudes previously learned but they are not sufficient to cover everything students are required to know.



3.3 Assessment

The purpose of assessment in *What's the Plan Stan* is to support and improve students' learning. Teachers use formative assessment techniques to shape their ongoing interactions with students and to inform their planning.

Teachers may use the success criteria opportunities provided in the planning guide (pages 24, 36, 47) or design their own to fit their chosen achievement objectives and learning intentions.

3.4 Unit plans

The activities in the following unit plans are linked to achievement objectives from the Health and Physical Education, Social Sciences, Science and English learning areas.

Some activities require the use of photos or other resources, many of which are available on www.whatstheplanstan.govt.nz  or the CD-Rom .

These unit plans can be adapted to meet the needs of your teaching and learning programme. A whole-school focus coinciding with Disaster Awareness Week (the week of the second Wednesday in October) and finishing with a practice or simulation activity (see page 71) would be ideal. Alternatively, the unit plans could be used at the start of the school year when establishing emergency routines.

Other activities can be found in 3.7 *Disaster awareness activities and homework ideas* (pages 51-57).

Unit plans and activities

Junior unit plan

Levels:	• 1–2	
Approximate duration:	• 4–10 weeks	
Values:	<ul style="list-style-type: none"> • Community and participation • Innovation, inquiry and curiosity 	
Key competencies:	<ul style="list-style-type: none"> • Managing self • Thinking • Participating and contributing • Relating to others • Using language, symbols and texts 	
Learning areas:	• Health and Physical Education	Personal Health and Physical Development: Safety Management Healthy Communities and Environments: Community Resources
	• Social Sciences	Conceptual strands: Identity, Culture and Organisation Continuity and Change Place and Environment
	• Science	Planet Earth and Beyond: Interacting Systems
	• English	Listening, Reading and Viewing Speaking, Writing, and Presenting
Resources provided:	Template 1: <i>What if cards</i> Template 2: <i>Letter to parents – introduction to the unit</i> Template 3: <i>Home hazard map</i> Template 4: <i>Survival items 'cut and stick' sheet</i> Template 5: <i>Emergency survival items at home</i> Template 6: <i>Letter to parents – household emergency plan</i> Template 7: <i>Feelings pictures</i> Template 8: <i>Self or peer assessment chart</i>	

Health and Physical Education			Junior unit
Achievement objectives	Learning intentions <i>Students will:</i>	Assessment criteria suggestions <i>Students will:</i>	Activities
Identify and discuss obvious hazards in the home, school, and local environment and adopt simple safety practices. <i>Healthy Communities and Environments: Community Resources (1D1)</i>	Identify and explain what a hazard is. Demonstrate simple safety practices to keep themselves safe at school and at home.	Locate hazards on a map of the school and discuss. Say what they should do first and next if there is a disaster: <ul style="list-style-type: none"> • at school • at home. 	Hazard identification Section A: Activity 1 Identify disasters Section A: Activity 2 Earthquakes Section A: Activity 6 Emergency response procedures Section B: Activity 1 Emergency survival items Section B: Activity 2 Homework: survival items Section B: Activity 2b Practise drills Section C: Activity 1 Scenarios Section C: Activity 2
Identify risk and use safe practices in a range of contexts. <i>Personal Health and Physical Development: Safety Management (2A3)</i>	Explain how they can prepare for disasters at home and school.	Discuss an evacuation plan with their family.	

Social Sciences			Junior unit
Achievement objectives	Learning intentions <i>Students will:</i>	Assessment criteria suggestions <i>Students will:</i>	Activities
Understand how places influence people and people influence places. <i>Place and Environment (Level 2)</i>	Identify the most likely kinds of disaster to affect them.	Write or talk about a disaster that could affect them.	Identify regional disasters Section A: Activity 3
Understand how time and change affect people's lives. <i>Continuity and Change (Level 2)</i>	Explain how disasters affect people and communities now and in the past.	Respond to questions about historic disasters.	Historic disaster story Section A: Activity 4
Understand how people have different roles and responsibilities as part of their participation in groups. <i>Identity, Culture and Organisation (Level 1)</i>	Identify different groups who will respond to a disaster. Explore their roles.	Complete class chart: <ul style="list-style-type: none"> • People who can help • What can they do? 	Find out who can help Section A: Activity 5 Feelings and emotions Section C: Activity 3 Survival stories Section D: Activity 1 What if cards Section D: Activity 2

Science			Junior unit
Achievement objectives	Learning intentions <i>Students will:</i>	Assessment criteria suggestions <i>Students will:</i>	Activities
Describe how natural features are changed and resources affected by natural events and human actions. <i>Planet Earth and Beyond: Interacting Systems</i> (Level 1/2)	Investigate and describe the effects different kinds of disasters might have on the landscape.	Explain the cause and effect of a specific disaster on the landscape.	Identify disasters Section A: Activity 2 and/or Make a volcano in a sand tray to explore the effect of an eruption, see: www.sciencebob.com Develop a display to show how a flood erodes soil and affects objects in its path. Earthquakes Section A: Activity 6

English			Junior unit
Achievement objectives	Learning intentions <i>Students will:</i>	Assessment criteria suggestions <i>Students will:</i>	Activities
Acquire and begin to use sources of information, processes, and strategies to identify, form, and express ideas. (Level 1) Select and use sources of information, processes, and strategies with some confidence to identify, form, and express ideas. (Level 2)	Share their findings about disaster preparedness through oral, written, or visual presentation.	Discuss disaster preparedness at home with their family, and share their plans with others at school.	This resource provides numerous opportunities for speaking, writing, presenting, listening, reading and viewing activities. Identify disasters Section A: Activity 2

Unit overview: Junior

Section A: Reducing the risk – making ourselves aware	Section B: Let's get ready – and stay prepared	Section C: Time to practise – responding the right way	Section D: Be a survivor – recovery from disasters
Activity 1: Hazard identification (Health and Physical Education) <i>Identify and explain what a hazard is.</i>	Activity 1: Emergency response procedures (Health and Physical Education) <i>Demonstrate simple safety practices to keep safe at school.</i>	Activity 1: Practise drills (Health and Physical Education) <i>Practise a range of emergency drills at school and at home.</i>	Activity 1: Survival stories (Social Sciences) <i>Discuss what might happen after a disaster.</i>
Activity 2: Identify disasters (Health and Physical Education, Science, English) <i>Identify what a disaster is and discuss how people might prepare for one.</i>	Activity 2: Emergency survival items (Health and Physical Education) <i>Discuss emergency survival items required at school and at home.</i>	Activity 2: Scenarios (Health and Physical Education) <i>Discuss and role play responses to a range of disaster scenarios.</i>	Activity 2: What if cards (Social Sciences) <i>Explain how people respond and recover from a disaster.</i>
Activity 3: Identify regional disasters (Social Sciences) <i>Identify types of disasters that could affect them.</i>		Activity 3: Feelings and emotions (Social Sciences) <i>Explore ways people could cope with their feelings and emotions during a disaster.</i>	
Activity 4: Historic disaster story (Social Sciences) <i>Explain how disasters affect people and communities now and in the past.</i>			
Activity 5: Find out who can help (Social Sciences) <i>Identify different groups who will respond after a disaster and explore their roles.</i>			
Activity 6: Earthquakes (Health and Physical Education, Science) <i>Discuss what earthquakes are and how to respond during one.</i>			

Section A: Reducing the risk – making ourselves aware

Activity 1: Hazard identification

Resources:




- Map of the classroom
- a) Discuss various hazards at different locations such as the beach, the park, at home or at school. Students could complete a map to show hazards on their way to school.
- b) Alternatively, draw a map of the classroom and ask students to draw pictures of potential hazards, glue them to the map, and write sentences describing the hazards and how to deal with them. For example, we push the chairs in to stay safe in the classroom.

Homework: Identify the hazards!

Ask students to observe hazards at home and discuss these with their families; then draw a picture to bring back to school that shows the hazards they identified.

Activity 2: Identify disasters

Resources:

- CD-Rom 
- Static or video images from a range of disasters
- a) Refer back to the previous activity on hazard identification. Discuss the difference between everyday hazards and potential hazards in a disaster.
- b) Collect a range of disaster pictures. The students could help collate these by looking through books, printing images from www.whatstheplanstan.govt.nz  or the CD-Rom  or using photo cards from resources already in your school.
- c) Discuss these images as a class. Use a piece of blank paper to cover parts of the pictures and disclose small pieces slowly. Ask questions such as:
 - What do you think might be happening?
 - Why do you think this happened?


- How do you think they are feeling?
- What could they have done to prepare for this disaster?
- What do you think they might do next?

You could also view video footage of disasters online.



- d) Students write about these static and video images, describing how the people might feel and what caused these effects. Publish the writing in different ways so that students can read what others have written.
- e) Use 3.8 *Disaster fact sheets* (pages 58-66) to provide information about what to do before, during and after each type of disaster. Use 3.7 *Disaster awareness activities* (pages 51-57) to choose learning activities that best suit the needs of your class. Homework tasks for each disaster will also help parents/caregivers and families to prepare.

Activity 3: Identify regional disasters

Resources:

- De Bono's thinking hats
- CD-Rom 
- Disaster chart
- Hoops
- a) List the different types of disasters. Ask students: Could it happen here? Make a graph or chart to show their responses: yes, no or maybe.
- b) Discuss the graph or chart and make comparisons or use De Bono's thinking hats:

Colour	Meaning
White hat	Neutral: What are the facts?
Yellow hat	Positive impacts: What are the good points?
Black hat	Negative impacts: What is wrong with this?
Green hat	Creative: What ideas do we have?
Red hat	Emotions and feelings: How was the character feeling?
Blue hat	Planning and reflection: What is the next step?

- c) Students work in pairs and use www.whatstheplanstan.govt.nz  or the CD-Rom  to find out about the various types of disasters that have happened or are likely to happen in their region.
- d) Use a grid to sort different types of disasters.
(Disaster chart bottom of page.)
- e) Place two hoops on the ground. Using the words that come from the disaster chart, create a Venn diagram comparing two different types of disasters.

Activity 4: Historic disaster story

Resources:

- *Isabel's Upside-Down Day* by Rosamond Rowe or other story (see 5.2 Other resources page 99)
- a) Read a story about a historic disaster such as *Isabel's Upside-Down Day* by Rosamond Rowe. Ask questions such as:
- How did the disaster affect the people in the story or community?
 - When did this disaster take place?
 - What do you think we would do differently or the same if it happened today?
 - What preparation did lessen, or could have lessened, the impact of the disaster?
- b) Ask the students to write and illustrate a story as if they were there. How would they have felt and what would they have done?

Activity 5: Find out who can help

Resources:

- Magazines
- Visitors
- Video camera

- a) Make a collage of people who might help during a disaster. Students could cut pictures from magazines or draw pictures of people; group them; then glue to a large piece of paper. Groups could include parents/caregivers, students, teachers, ambulance service, fire service, police, doctors, first aiders, civil defence, media and veterinarians.
- b) In small groups, students select one of these groups of people who might help during a disaster and discuss what they can do. Students role-play how they can help others, and share their actions with the class. Encourage the use of props such as a telephone or first-aid kit.
- c) Invite visitors from your community who help others (eg fire, ambulance, police or civil defence staff from the local council) to talk to the students, or organise a class visit to their workplace. Students prepare questions. Video these talks for other classes in the school to use.

Activity 6: Earthquakes

Resources:

- *Ana's Earthquake Story* from *What's the Plan Stan Stories*
 - *Is that an Earthquake?* by Alan Bagnall, Junior School Reader, Ready to Read, Orange
- a) Read *Ana's Earthquake Story* from *What's the Plan Stan Stories* or *Is that an Earthquake?* by Alan Bagnall.
- b) Make posters about earthquakes to:
- show what to do in an earthquake
 - remind teachers and parents to regularly practise earthquake drills
 - summarise what an earthquake is and how they happen.
- c) Display the posters at school or send them home as reminders to family/whānau.

Type of disaster	What it looks like	What it sounds like	Could it affect our school?	What might happen to our school?	What might happen to our home/city?
Earthquake					
Flood					
Storm					
Volcano					
Tsunami					

Section B: Let's get ready – and stay prepared

Activity 1: Emergency response procedures

Resources:

- School's emergency evacuation plans
 - Art materials
 - Template 2: *Letter to parents – introduction to the unit* (page 80)
 - Template 3: *Home hazard map* (page 81)
- a) As a class, review the school's emergency evacuation plans and response procedures. Discuss the plans and ensure that everyone knows what to do in a disaster.
 - b) As a whole class, or in small groups with an adult's help, go through exactly what to do in response to each disaster.
Here is an example:
Volcanic eruption and ash-fall:
 - Close windows and doors.
 - Stay inside as much as possible.
 - Students listen to the teacher and prepare to evacuate if required.
 - Discuss what to use for a facemask if they need to go outside.
 - c) Draw, paint or make a collage or map showing where to assemble during or after a disaster at school.

Homework: Home emergency plan

Students create a home hazards map with their families/whānau. Together they brainstorm situations when they may need to leave their house and when it may be safer to stay indoors. For example, it might be safer to stay indoors during a big storm but what about during a flood? Send a letter to parents/caregivers with suggestions for discussion and a template for the map.

Useful templates

Template 2: *Letter to parents – introduction to the unit*

Template 3: *Home hazards map*

Check out your school's emergency procedures. There are different plans for different disasters and for inside and outside the classroom.

Activity 2: Emergency survival items

Resources:

- Template 4: *Survival items 'cut and stick' sheet* (page 82)
 - Template 5: *Emergency survival items at home* (page 83)
- a) As a class, discuss the possibility of having to stay at home without help for up to three days or more in a disaster. Brainstorm a list of the emergency items you might need. Show the students these items (from your class or school emergency survival kit) and give them the opportunity to explore and discuss them. Ask questions like:
 - What is this?
 - What's it for?
 - How do you use it?
 - Why is it there?
 - What are other special things you might need?
 - b) Students complete Template 4: *Survival items 'cut and stick' sheet*, to show items that would be useful in a disaster.

Homework: Survival items

Students take the 'Survival items 'cut and stick' sheet' home and tick the items they have and can easily find at home. Send a letter to parents or caregivers with discussion points and a checklist of emergency survival items.

Useful templates

Template 4: *Survival items 'cut and stick' sheet*

Template 5: *Emergency survival items at home*

Section C: Time to practise – responding the right way

Activity 1: Practise drills

Resources:

- Template 6: *Letter to parents – household emergency plan* (page 84)
- a) Practise a range of emergency drills as a class or whole school. Discuss scenarios such as what to do:
 - at lunchtime or during breaks
 - if travelling to and from school
 - if the teacher isn't at school and there is a reliever.
- b) As a class, make a book about different disasters and what to do in each situation. Students could work individually to write parts or it could be written as a whole class activity. Alternatively, students could design emergency procedure cards and display these in the classroom.

Homework: Evacuation and emergency practice

Students practise their emergency evacuation and emergency response procedures at home. Send an activity sheet with discussion guidelines to their parents or caregivers.

Useful template

Template 4: *Letter to parents – household emergency plan*

Activity 2: Scenarios

Resources:

- Template 1: *What if cards* (pages 75-79)
- a) Read some of the *What if* scenarios and discuss what students could do in the different situations. The www.whatstheplanstan.govt.nz website and CD-Rom contain a list of discussion points to consider when using these cards. Students could act out scenarios in small groups.
- b) Other classes may want to come and share their scenarios and vice versa.

Activity 3: Feelings and emotions

Resources:

- *What's the Plan Stan Stories*
- *Flood* by Sonny Mulheron in School Journal Part 2, Number 2, 2004
- Template 7: *Feelings pictures* (enlarged) (page 86)
- a) Read a story from *What's the Plan Stan Stories* or from the School Journal (eg *Flood* in School Journal Part 2, Number 2, 2004).
- b) Discuss how the characters were feeling. Ask questions like:
 - How was the girl in the story feeling? How do you know?
 - What did she do to express her feelings?
 - If a flood happened around your house, how do you think you would feel?
 - What might you do to help yourself feel better?
- c) Explore things students could do to help themselves cope with their feelings if a disaster happened, for example:
 - Go to their parents/caregivers or other adults for help.
 - Ask questions such as: What is happening? When will I go back home or back to school?
 - Help others. For example, clean the house, feed the pets, or look after other children.
 - Write or draw about their experiences – describe what happened and how they feel.

- Remind them that crying is a way to express feelings and that it's okay to cry.
- d) Play Corner Feelings to encourage students to think of times when they might have been feeling scared, sad, disappointed, frightened or lonely.

Corner feelings

Enlarge the pictures of the feelings provided in Template 7: *Feelings pictures*. Put a different feelings picture in each corner of the room. One student spins a drink bottle in the middle of the circle. When it stops, ask them to describe the feeling that it points to:

- What is the feeling?
- When have you felt like that?
- How would you express this feeling?

Useful template

Template 7: *Feelings pictures*

- e) Students choose a feeling; then paint a picture of themselves with that feeling, and write a caption describing the feeling. For example:
- If...happened I would feel....
 - I felt...when...happened.
 - Crying helps me when I feel sad.
 - Talking to someone helps me when I feel scared.

These paintings could be made into a book, taken home or displayed in the classroom.

Section D: Be a survivor – recovery from disasters

Activity 1: Survival stories

Resources:

- Select a disaster story or article from 5.2 *Other resources* (page 99)
- a) Share a story or article about what might happen after a disaster.
- b) The students use the co-operative learning technique 'think, pair, share' to discuss what might happen after a disaster. Questions to ask could be:
- Who might look after you?
 - What might be some of the problems? For example, water and food, injuries or problems getting home.
 - What could you do to help?
- c) Alternatively, invite a family or community member to come and share their story. Students could prepare questions.

Talking about disasters with students can reduce the trauma they experience in the event of a disaster and lessens their feelings of uncertainty. Discussing feelings and incorporating a mental health component in the school's emergency plan are also good ways to help lessen potential trauma.

An ideal opportunity to discuss feelings could be directly after fire or earthquake drills as some students, particularly younger ones, can feel uncertain or scared about what has happened.

The Curriculum in Action series, particularly *Change, Loss, and Grief* (Years 1–8) and *Kotahitanga Getting on Together* (Years 1–3) also provide useful activities for exploring feelings.

Activity 2: What if cards

Resources:

- Scenarios developed in Section C: Activity 2
 - Template 1: *What if cards* (pages 75-79)
- a) Repeat the Scenarios activity. Work in groups and use the *What if cards* to role-play disaster situations from start to the conclusion of the event. The www.whatstheplanstan.govt.nz website and CD-Rom contain a list of discussion points to consider when using these cards.
- b) Write shared stories with the class about situations that could be based on the role-plays.
- Students write independent stories.
 - Focus on the correct response and successful outcome.
 - Publish the stories on the computer and make them into a book.

Assessment

Students’ success criteria can be used as a form of formative and summative assessment. Students could self or peer assess against the set criteria. This can be done verbally, with charts as shown in the examples below, or by using Template 8: *Self or peer assessment chart* on page 87.

Learning area:
Health and Physical Education
(Levels 1/2)

Healthy Communities and Environments (1D1)

Learning intention: *Students will identify and explain what a hazard is and demonstrate simple safety practices to keep themselves safe at school and at home.*

Personal Health and Physical Development (2A3)

Learning intention: *Students will explain how they can prepare for disasters at home and school.*

Success criteria	Smiley face
I can list or talk about some types of hazards.	
I can name and talk about some disasters that could affect me.	
I can say what I should do if there is a disaster: <ul style="list-style-type: none">• at school• at home.	
I have talked about an emergency plan with my family.	

Learning area: Social Sciences
(Levels 1/2)

Identity, Culture and Organisation (Level 1)

Learning intention: *Students will identify how different groups will respond to a disaster and explore their roles.*

Fill in a summary chart like the one below. Students write or draw pictures to show the different groups and how they might respond to a disaster.

People who can help	What can they do?
e.g. Fire service	<ul style="list-style-type: none">• Put out fires• Rescue people with ladders• Supply water• Pump out flooded areas• Cover leaking roofs

Learning area: Science (Level 2)

Planet Earth and Beyond: Interacting Systems
(Levels 1 and 2)

Learning intention: *Students will investigate and describe the effects different kinds of disasters might have on the landscape.*

The suggested science activities will contribute to students' deeper understanding of how disasters can happen. Design assessment criteria to fit selected achievement objectives and learning intentions.

Learning area: English (Levels 1/2)

Learning intention: *Students will share their findings about disasters through oral, written, or visual presentation.*

Section A: Activity 2 – *Identify disasters* could be assessed in terms of how well the students shared their findings through oral, written or visual presentation.

Observe the students carefully while they complete this work, and record your observations.

Ideas for follow up

- Regularly practise emergency procedures so that students are familiar with what to do in a disaster.
- Arrange for a representative from the emergency management office at your local council to visit your school and talk about disaster awareness.
- Invite parents/caregivers and families to class so that students can share what they have learnt.

This unit focuses on Health and Physical Education, Social Studies, Science and English. You could also focus on other areas of the curriculum such as Technology, Science or Art by using 3.7 Disaster awareness activities on pages 51-57.

Middle unit plan

Years:	• Years 4–6	
Levels:	• Levels 2–3	
Approximate duration:	• 4–10 weeks	
Values:	<ul style="list-style-type: none"> • Community and participation • Ecological sustainability • Innovation, inquiry and curiosity 	
Key competencies:	<ul style="list-style-type: none"> • Managing self • Thinking • Participating and contributing • Relating to others • Using language, symbols and texts 	
Learning areas:	• Health and Physical Education	Personal Health and Physical Development: Safety Management Healthy Communities and Environments: Rights, Responsibilities and Laws
	• Social Sciences	Conceptual strands: Identity, Culture and Organisation Continuity and Change
	• Science	Planet Earth and Beyond: Earth Systems
	• English	Listening, Reading and Viewing Speaking, Writing, and Presenting
Resources provided:	Template 1: <i>What If cards</i> Template 2: <i>Letter to parents – introduction to the unit</i> Template 3: <i>Home hazard map</i> Template 4: <i>Survival items 'cut and stick' sheet</i> Template 5: <i>Emergency survival items at home</i> Template 6: <i>Letter to parents – household emergency plan</i> Template 9: <i>What might happen?</i> Template 10: <i>Disaster similarities and differences</i> Template 11: <i>Report checklist</i> Template 12: <i>Historic disasters</i> Template 13: <i>Writing about hazards</i> Template 14: <i>Health rules after disasters</i> Template 15: <i>Map of New Zealand</i>	

Health and Physical Education			Middle unit
Achievement objectives	Learning intentions <i>Students will:</i>	Assessment criteria suggestions <i>Students will:</i>	Activities
Identify risks and their causes and describe safe practices to manage these. <i>Personal Health and Physical Development: Safety Management (3A3)</i>	Identify hazards and prepare for a range of disasters in the classroom, home and community.	Be able to talk about a range of disasters. Say what they would do if there was a disaster at school, home or in the community. Develop an evacuation plan with their family.	Identify hazards Section A: Activity 1 What is a disaster? Section A: Activity 2 What might happen? Section A: Activity 4 Emergency survival items Section B: Activity 1
Research and describe current health and safety guidelines and practices in their school and take action to enhance their effectiveness. <i>Healthy Communities and Environments: Rights, Responsibilities and Laws (3D3)</i>	Review the school's relevant emergency response procedures and take action to enhance their effectiveness.	Discuss the school's relevant emergency response procedures. Identify and share ways to enhance their effectiveness (eg flow chart, poster, role-play or digitally).	Emergency response procedures Section B: Activity 2 Identify special needs Section B: Activity 3 Practise scenarios Section C: Activity 1 What else can we do? Section C: Activity 2 After a disaster Section D: Activity 2

Social Sciences			Middle unit
Achievement objectives	Learning intentions <i>Students will:</i>	Assessment criteria suggestions <i>Students will:</i>	Activities
Understand how time and change affect people's lives. <i>Conceptual Strand: Continuity and Change (Level 2)</i>	Understand how people respond to a disaster and learn from past experiences.	Write a report about a local disaster/s, identifying what people learned from it.	Disasters in your area Section A: Activity 3 Historic disasters Section A: Activity 6
Understand how people make significant contributions to New Zealand's society. <i>Conceptual Strand: Identity, Culture and Organisation (Level 2)</i>	Identify groups of people who help during a disaster and describe their roles and functions.	Make a chart of the groups of people who help during a disaster and describe the functions of these groups.	People who help us Section A: Activity 5 Visit to/from the emergency management staff at your local council Section D: Activity 1

Science			Middle unit
Achievement objectives	Learning intentions <i>Students will:</i>	Assessment criteria suggestions <i>Students will:</i>	Learning Experiences
Explore and describe natural features and resources. <i>Planet Earth and Beyond: Earth Systems (Level 2/3)</i>	Identify natural geological features of the landscape and how they may contribute to a natural disaster.	Identify and describe New Zealand's fault lines and locate where major earthquakes have occurred. Describe the three major types of volcanoes. Locate New Zealand's major volcanoes on a map and identify which type they are. Explain the cause and effect of a tsunami. Describe extreme conditions caused by storms/flooding/heavy snowfalls.	Use multimedia resources to find out about Gondwanaland. Explore New Zealand's fault lines and label major earthquakes on a map of New Zealand (use Template 15). Analyse the different types of volcanoes and show their location on a map of New Zealand (use Template 15). Draw a picture, diagram or flow chart to show the cause and effect of a tsunami. What is a disaster? Section A: Activity 2

English			Middle unit
Achievement objectives	Learning intentions <i>Students will:</i>	Assessment criteria suggestions <i>Students will:</i>	Activities
Select and integrate sources of information, processes, and strategies with some confidence to identify, form, and express ideas. <i>(Level 3)</i>	Gather and process information from a range of texts about disasters.	Share their understanding in a variety of ways about how to prepare for a disaster and keep safe during and after a disaster. Examples could include oral presentations, interviews, PowerPoints, debate, factual recounts, flow charts, Venn diagrams, mind maps, charts etc.	This resource provides numerous opportunities for speaking, writing, presenting, listening, reading and viewing activities, such as: What is a disaster? Section A: Activity 2 Disasters in your area Section A: Activity 3 Feelings and emotions Section D: Activity 3 Historic disasters Section A: Activity 6

Unit overview: Middle

Section A: Reducing the risk – making ourselves aware	Section B: Let's get ready – and stay prepared	Section C: Time to practise – responding the right way	Section D: Be a survivor – recovery from disasters
Activity 1: Identify hazards (Health and Physical Education) <i>Identify and explain what a hazard is and how people can become more aware of them.</i>	Activity 1: Emergency survival items (Health and Physical Education) <i>Identify the emergency survival items required at school and at home and explain their purpose. Explore a class emergency kit.</i>	Activity 1: Practise scenarios (Health and Physical Education) <i>Practise a range of emergency drills at school and at home using different scenarios.</i>	Activity 1: Visit to/from the emergency management staff at your local council (Social Sciences) <i>Visit or invite the representatives from the local civil defence emergency management office and other emergency services to investigate how they prepare for and respond to a disaster.</i>
Activity 2: What is a disaster? (Health and Physical Education, Science, English) <i>Identify a variety of disasters and become more aware of how people can prepare for them.</i>	Activity 2: Emergency response procedures (Health and Physical Education) <i>Review and become familiar with the school's emergency response procedures and create a home emergency plan with families. Share with a younger class.</i>	Activity 2: What else can we do? (Health and Physical Education) <i>Take action to encourage others to practise emergency drills and response procedures.</i>	Activity 2: After a disaster (Health and Physical Education) <i>Research and summarise safe practices after a disaster.</i>
Activity 3: Disasters in your area (Social Sciences, English) <i>Investigate disasters that have happened locally and discuss the effects.</i>	Activity 3: Identify special needs (Health and Physical Education) <i>Identify the special needs of members of the community in a disaster. Design a neighbourhood survey to determine disaster preparedness.</i>		Activity 3: Feelings and emotions (English) <i>Explore and demonstrate ways people could cope with their feelings and emotions if a disaster happened.</i>
Activity 4: What might happen? (Health and Physical Education) <i>Research a disaster and identify the effects on the community.</i>			
Activity 5: People who help us (Social Sciences) <i>Identify different groups of people who help during a disaster and describe their roles and functions.</i>			
Activity 6: Historic disasters (Social Sciences, English) <i>Research an historic disaster and explore how people respond to a disaster.</i>			

Section A: Reducing the risk – making ourselves aware

Activity 1: Identify hazards

Resources:

- Template 13: *Writing about hazards* (page 92)
- Digital cameras


- a) Identify hazards that may affect us personally – at school, on the way home, or at home. Examples of hazards may include:


At school	On the way home	At home
Glass that may shatter	Transport hazards such as speeding cars or damaged bridge	Objects that restrict movement to a safe place
Bags left in hallways	Glass on the footpath	Boiling water
Objects on wheels	Chemical fumes	Hot elements
Heater too close to bean bag		Falling objects

- b) Take photos of the hazards and use these as a starting point for writing about how we can become more aware of these hazards, or how to deal with them.
- c) Each student writes about a different hazard. Collate these to make a book. Use Template 13: *Writing about hazards* to help students structure their writing.

Activity 2: What is a disaster?

Resources:

- *The Sleeper Wakes* by David Hill or School Journal story *The Big One* by Keith Tonkin Part 3, Number 2, 1999
- Books
- Photo cards
- CD-Rom  and internet
- Kevin Boon Series *Events in New Zealand History* (see 5.2 *Other resources* pages 99-103)
- 3.8 *Disaster fact sheets* on pages 58-66





- a) Refer back to the previous activity on hazards. Discuss the difference between everyday hazards and potential hazards in a disaster.
- b) Read the novel *The Sleeper Wakes* by David Hill or School Journal story *The Big One* by Keith Tonkin as an introductory capturing activity.
- c) Explore books, photo cards, the CD-Rom  and internet. Useful books to explore are the Kevin Boon Series *Events in New Zealand History*. See the book lists on pages 99-102 for others.
- *The Wellington Flood*
 - *The White Island Eruption*
 - *The Napier Earthquake*
 - *The Influenza Epidemic*
 - *The Tangiwai Rail Disaster*
- d) Work in small groups to define 'disaster'. Share these definitions with others. Explore the following terms and record their definitions in a variety of ways, such as in a book, poster, list or PowerPoint. Write definitions for the words:
- disaster
 - hazard
 - emergency

Refer to 5.3 *Glossary* on page 104.

- e) As a class, discuss pictures of various disasters. Ask questions such as:
- What has happened here?
 - Why do you think this happened?
 - Where could they go?
 - What could they have done to prepare for this disaster?
 - What do you think they might do next?
 - How could they be better prepared if this disaster happened again?
- f) Use 3.8 *Disaster fact sheets* to help students understand the different types of disasters and what to do before, during and after them. For each of the six disaster types, choose the learning activities that best suit the needs of your class. You could use a workstation approach to these activities or assign individual disasters to groups, who then report their findings back to the class. Homework for each disaster is included so parents/caregivers and families can participate.

Activity 3: Disasters in your area

Resources:

- www.whatstheplanstan.govt.nz 
 - CD-Rom 
 - Books (see 5.2 Other resources pages 99-103)
- a) Find out about disasters that have happened in your own area, school, home or local community. Students can explore www.whatstheplanstan.govt.nz  or the CD-Rom , books and other resources.
 - b) Make a mind map exploring the question 'What could affect you and your local environment?'

Activity 4: What might happen?

Resources:

- Template 9: *What might happen?* (page 88)
 - Map of local environment
 - Template 10: *Disaster similarities and differences* (page 89)
- a) Students work in groups to identify the effects of a disaster. Each group chooses one possible disaster.
 - b) Prepare inquiry questions to find out who, what, when, how, why and which information.
 - c) Students use a range of information sources to gather answers to questions. Groups could complete Template 9: *What might happen?*
 - d) Students present their findings to the class using a range of possible multimedia tools – PowerPoint, video, etc.
 - e) Use a map of the local environment to locate possible dangers and damage identified by each group. For example, blocked roads, people trapped in buildings, fallen power lines, or burst water pipes.

Display this map for the class to refer to later, eg during Section A: Activity 5 – *People who help us*.

Homework: Different disasters

Compare various disasters noting the similarities and differences.

Useful template

Template 10: *Disaster similarities and differences*

Activity 5: People who help us

Resources:

- Community visitor
 - Video recorder
 - Template 11: *Report checklist* (page 90)
- a) Invite visitors from the community to come and talk about their roles, or visit them as a class outing. Students prepare questions. Tape or video these talks for other classes to use.

Possible groups include staff at your local council, police, ambulance service, fire service, Earthquake Commission, first-aiders, telecommunication companies, media, veterinarians and armed services.
 - b) Students write a report about the group they focused on and their possible functions in a disaster. Template 11: *Report checklist* has some useful teaching points to model and assess.

Students share their reports and discuss in pairs:

- Who could you go to for help in a disaster?
- Who could you help at school and at home?

Activity 6: Historic disasters

Resources:

- Kevin Boon resource books or other books in 5.2 Other resources (page 99)
 - Template 12: *Historic disasters* (page 91)
- a) Explore an historic event such as the Napier earthquake or the influenza epidemic. Use the Kevin Boon resource books or other suggested resources.
 - b) Prepare and conduct an interview with a person who has experienced a disaster.

- c) Explore personal accounts focusing on thoughts and feelings. Create a flow chart or timeline of events to show the ways in which people respond to a disaster.

Homework: A look at history

Students discuss historic disasters with their families and complete a summary sheet that explores questions such as:

- What can you learn from these historic disasters and experiences?
- What would you do differently or the same?

Useful template

Template 12: *Historic disasters*

Section B: Let's get ready – and stay prepared

Activity 1: Emergency survival items

Resources:

- Template 4: *Survival items 'cut and stick' sheet* (page 82)
- Template 5: *Emergency survival items at home* (page 83)

As a class, discuss the possibility of having to stay at home without help for up to three days or more in the event of a disaster. In pairs, students brainstorm all the emergency items they might need.

Ask questions like:

- What items do you think you will need?
 - What's it for?
 - How do you use it?
 - Why is it there? What's its use?
 - How much do you think you need?
 - What needs to be replenished, replaced or updated?
 - Are there any other special things you will need?
- a) Students draw and label a picture to show all the items or list them.

Homework: Survival items

Students take home the 'Survival items 'cut and stick' sheet' and tick the items they have and can easily find at home. Send a letter to their parents or caregivers with discussion points and a checklist of emergency survival items.

Useful templates

Template 4: *Survival items 'cut and stick' sheet*

Template 5: *Emergency survival items at home*

Activity 2: Emergency response procedures

Resources:

- School's evacuation plans and emergency response procedures
 - Template 2: *Letter to parents – introduction to the unit* (page 80)
 - Template 3: *Home hazard map* (page 81)
 - Template 6: *Letter to parents – household emergency plan* (page 84)
- a) In small groups of four or six, review the school's evacuation plans and emergency response procedures.

If the school has various plans, give a different plan to each group. Discuss the plans with each group to ensure that everyone knows what to do in the event of a disaster. If the school only has one or two plans, give these to all groups.

- b) Divide the groups in half – each group teaches another group what to do. Keep swapping groups until everyone has been through all the emergency response procedures. If the school has only one or two plans, go through these as a class.
- c) Get students to make a poster to display the emergency plan or procedure that their group was working on. The poster may include a map or other illustrations that clearly demonstrate what to do in a disaster. Put these posters on display to refer to during Section C: Activity 2 – *What else can we do?*

Homework: Home hazard map

Students create a home hazard map with their families. Together they brainstorm situations when they may need to leave their house and others when it would be safer to stay indoors. For example, it might be safer to stay indoors during a big storm but what about during a flood? Send a letter to their parents or caregivers with suggestions for discussion and a template for the map. The household emergency plan will also help parents with this activity.

Useful templates

Template 2: *Letter to parents – introduction to unit*

Template 3: *Home hazard map*

Template 6: *Letter to parents – household emergency plan*

Activity 3: Identify special needs

Resources:

- Template 1: *What if cards* (page 75)
 - Template 6: *Letter to parents – household emergency plan* (page 84)
 - Magnetic strips for making fridge magnets
- a) Discuss as a group or class how they could help in the community in a disaster. For example helping with:
- people with special needs
 - the elderly
 - pets and farm animals.
- b) Use the *What if cards* to discuss various scenarios. The www.whatstheplanstan.govt.nz website and CD-Rom contain a list of discussion points to consider when using these cards. Include examples of people with special needs or animals.
- c) Make a plan or flow chart to show how you could help someone in your neighbourhood before or during a disaster.

Homework: Design a family disaster plan fridge magnet

As a class, brainstorm information to include on the magnet, such as:

- nearest Civil Defence Centre/Sector Post
- family meeting place
- out-of-area contact
- emergency contacts
- space for the date when the household emergency plan should be practised.

Students may like to see other emergency plans as a guideline – refer to Template 6: *Letter to parents – household emergency plan*.

Students design their magnet and complete it with their families. They then bring it to school to stick on the magnet strips. Have a competition for the most effective and practical magnet. Someone from the local council or community could be invited to be the judge.

Section C: Time to practise – responding the right way

Activity 1: Practise scenarios

Resources:

- Template 1: *What if cards* (page 75)
 - Template 6: *Letter to parents – household emergency plan* (page 84)
- a) Practise a range of emergency drills as a class or whole school. Discuss scenarios such as what to do:
- at lunchtime or during breaks
 - if travelling to and from school
 - if the teacher isn't here and there is a reliever.
- b) Using Template 1: *What if cards*, students work in small groups to act out what they could do in different situations. The www.whatstheplanstan.govt.nz website and CD-Rom contain a list of discussion points to consider when using these cards. Give each group different scenarios and ask them to discuss and share these with their peers, other students or their families.

Homework: How quickly can you exit?

Students time themselves as they make their way out of their family home using the exit route discussed. Time the whole family. Then try it blindfolded to simulate having to exit in the dark.

Useful templates

Template 6: *Letter to parents – household emergency plan*

Activity 2: What else can we do?

Resources:

- Posters made during Section B: Activity 2 – *Emergency response procedures*
- a) Refer to the posters made during Section B: Activity 2 – *Emergency response procedures*.

As a class or in groups, discuss your school's emergency response procedures or plans. Ask questions like:

- Are these school procedures and plans effective and clear?
 - What other plans might we need?
 - How do we make students and families aware of these plans and procedures?
 - How often do we practise these plans? Is it often enough or too often?
 - How can we improve their effectiveness?
 - How can we improve the effectiveness of our home emergency response procedures?
- b) Brainstorm a list of ways to improve the effectiveness of school plans and procedures. Ideas might include:
- Sharing information with other classes, families or at assembly.
 - Drafting other emergency plans to present to the principal or Board of Trustees.
 - Writing emergency preparedness messages for the school newsletter.
 - Making a suggested timetable or checklist for the school or teacher to practise emergency procedures.
 - Make a book to explain emergency procedures to junior children, ESOL students and students with special needs.
- c) Design emergency procedure cards for various types of disasters to display throughout the school. For example, in the library, corridors or office areas.
- d) Show younger children what to do in different disaster situations by demonstration or role-play.
- e) Each student or pair of students chooses a focus for how to improve emergency procedure effectiveness and is given time to work on their chosen project. See *Assessment* for ideas to assess this work.

Homework: Improving our plans

Students brainstorm a list of ways to improve the effectiveness of their own household emergency plans with their families. They choose one idea to follow up at home and report back to the class, group or teacher on the action taken.

Section D: Be a survivor – recovery from disasters

Activity 1: Visit to/from the emergency management staff at your local council

Resources:

- Emergency management staff at your local council
 - Resources to support preparation of inquiry questions
- a) Contact your local council to arrange a visit to their emergency management office. Alternatively, invite them to visit you.
- Discuss:
- What do we already know about civil defence emergency management?
 - What might we expect to see?
 - What jobs do people do there?
 - How do we obtain information? How is information distributed?
 - What kinds of equipment do they use?
 - How can they help us in a disaster?
 - What can we do to help them?
- b) Ask students to prepare inquiry questions and to find out more about civil defence emergency management before their visit, by using the internet, books and other resources. They could make a quiz to ask other students.

Activity 2: After a disaster

Resources:

- Template 14: *Health rules after disasters* (page 93)
- a) Provide students with Template 14: *Health rules after disasters*. Students work in pairs to read and discuss safe practices for such things as food and water, chemicals and fuels.
- b) Students work in pairs to prepare a chart or poster that summarise the 'dos and don'ts' immediately after a disaster.

Activity 3: Feelings and emotions

Resources:

- *What's the Plan Stan Stories*
 - *Isabel's Upside-Down Day* by Rosamond Rowe or School Journal story *Flood* by Sonny Mulheron, Part 2, Number 2, 2004
- a) Read a story from *What's the Plan Stan Stories*, *Isabel's Upside-Down Day* by Rosamond Rowe or *Flood* by Sonny Mulheron. Focus on the feelings and emotions of characters in the story. Ask questions like:
- How was the girl in the story feeling?
 - What did she do to express her feelings?
 - If an earthquake, flood or other disaster happened in your house or at school, how do you think you would act or feel?
 - What could you do to help yourself feel better?
- b) Ask the students to use puppets to demonstrate some of the things they could do to help themselves cope with their feelings if a disaster happened. For example:
- Look to their parents/caregivers or other adults for help.
 - Ask questions such as: What is happening? When will I go back home or back to school?
 - Help others. For example, clean the house, feed the pets, or look after other children.
 - Write or draw about their experiences – describe what happened and how they feel.
 - Remind them that crying is a way to express feelings and that it's okay to cry.

Assessment

Student’s success criteria can be used for formative and summative assessment. Students could self or peer assess against the set criteria. This can be done verbally or with charts as shown in the examples below.

Learning area: Health and Physical Education (Level 3)

Personal Health and Physical Development (3A3)

Learning intention: *Students will identify hazards and prepare for a range of disasters in the classroom, home and community.*

Success criteria	Continuum	Comment
I can list or talk about a range of disasters.	1 2 3 4 5	
I can say what I would do if there was a disaster:	1 2 3 4 5	
<ul style="list-style-type: none"> at school at home. 	1 2 3 4 5	
I have discussed an evacuation plan with my family.	1 2 3 4 5	
I have taken action to practise the school’s emergency procedures and inform others of these plans.	1 2 3 4 5	

Healthy Communities and Environments (3D3)

Learning intention: *Students will review the school’s emergency response procedures and take action to enhance their effectiveness.*

Students can discuss the school’s relevant emergency response procedures and identify and share ways to enhance their effectiveness. For example, with a flow chart, poster, role-play or digitally.

Learning area: Social Sciences (Level 2)

Continuity and Change

Learning intention: *Students will understand how people respond to a disaster and learn from past experiences.*

Students can write a report about a local disaster/s, identifying what people learned from it.

Identity, Culture and Organisation

Learning intention: *Students will identify groups of people who help during a disaster and describe their roles and functions.*

Students can make a chart of the groups of people who help during a disaster and describe the functions of these groups.

Refer to the list from Section A: Activity 4 – *What might happen*, and see if the students can match the possible dangers and damage with the appropriate person or group to help.

Learning area: Science (Levels 2/3)

Planet Earth and Beyond: Earth Systems (Level 3)

Learning intention: *Students will identify natural geological features of the landscape and how they may contribute to a natural disaster.*

The suggested science activities will contribute to students’ deeper understanding of how disasters can happen. Design assessment criteria to fit selected achievement objectives and learning intentions.

Learning area: English (Level 2/3)

Learning intention: *Students will gather and process information from a range of texts about disasters.*

Section A: Activity 2 – *What is a disaster*, and the reports or mind maps students completed in Section A: Activity 3 – *Disasters in your area* could be assessed in terms of how well the students read and gathered information from various sources.

If students prepared and presented an interview on a person who had experienced a disaster in Section A: Activity 6 – *Historic disasters*, this may present a further opportunity to assess speaking, writing and presenting skills.

Observe the students carefully while they complete this work, and record your observations.

Senior unit plan

Years:	• Years 7–8	
Levels:	• Levels 3–4	
Approximate duration:	• 4–10 weeks	
Values:	<ul style="list-style-type: none"> • Community and participation • Ecological sustainability • Innovation, inquiry and curiosity 	
Key competencies:	<ul style="list-style-type: none"> • Thinking • Using language, symbols and texts • Managing self • Relating to others • Participating and contributing 	
Learning areas:	• Health and Physical Education	Personal Health and Physical Development: Safety Management Healthy Communities and Environments: Rights, Responsibilities and Laws
	• Social Sciences	Conceptual strands: Identity, Culture and Organisation Place and Environment
	• Science	Planet Earth and Beyond: Earth Systems Interacting Systems
	• English	Listening, Reading and Viewing Speaking, Writing, and Presenting
Resources provided:	Template 1: <i>What if cards</i> Template 2: <i>Letter to parents – introduction to the unit</i> Template 3: <i>Home hazard map</i> Template 4: <i>Survival items 'cut and stick' sheet</i> Template 5: <i>Emergency survival items at home</i> Template 6: <i>Letter to parents – household emergency plan</i> Template 9: <i>What might happen?</i> Template 10: <i>Disaster similarities and differences</i> Template 11: <i>Report checklist</i> Template 12: <i>Historic disasters</i> Template 13: <i>Writing about hazards</i> Template 14: <i>Health rules after disasters</i> Template 15: <i>Map of New Zealand</i> Template 16: <i>Plus, minus and interesting (PMI) chart</i> Template 17: <i>Identifying the effects of a disaster</i> Template 18: <i>Hazard hunt</i>	

Health and Physical Education			Senior unit
Achievement objectives	Learning intentions <i>Students will:</i>	Assessment criteria suggestions <i>Students will:</i>	Activities
Identify risks and their causes and describe safe practices to manage these. <i>Personal Health and Physical Development: Safety Management (3A3)</i>	Identify and list a range of disasters and explain how to respond in a variety of situations.	Create a presentation (PowerPoint, chart or report) identifying a range of disasters and explaining what to do in a variety of situations.	Identify hazards Section A: Activity 1 What is a disaster? Section A: Activity 2 Emergency survival items Section B: Activity 1
Research and describe current health and safety guidelines and practices in their school and take action to enhance their effectiveness. <i>Healthy Communities and Environments: Rights, Responsibilities and Laws (3D3)</i>	Review the school's relevant response procedures and emergency evacuation plans and take action to enhance their effectiveness.	Critique the school's relevant response procedures and emergency evacuation plans (eg PMI). Present a case for improvements to a specific plan to enhance its effectiveness. With teachers guidance, demonstrate response procedures with a younger class.	Emergency plans Section B: Activity 2 School safety preparation Section B: Activity 4 Encourage others to practise Section C: Activity 2
Specify individual responsibilities and take collective action for the care and safety of other people in their school and in the wider community. <i>Healthy Communities and Environments (4D3)</i>	Describe their local community's needs in the event of a disaster and take action for the care and safety of people in their family and community.	Prepare a chart/checklist/ report identifying how specific groups in the community might prepare for and respond to disasters.	Identify special needs Section B: Activity 3 Practise scenarios Section C: Activity 1 Feelings and emotions Section D: Activity 3 After a disaster Section D: Activity 2

Social Studies			Senior unit
Achievement objectives	Learning intentions <i>Students will:</i>	Assessment criteria suggestions <i>Students will:</i>	Activities
Understand that events have causes and effects. <i>Place and Environment (Level 4)</i>	Explain the ways in which people have responded to disasters and explore the consequences of decisions made.	Research a local or national disaster. Investigate how communities responded and explain what has been learned from it.	What happens where? Section A: Activity 3 Historic events Section A: Activity 5 After a disaster Section D: Activity 2
Understand how people participate individually and collectively in response to community challenges. <i>Identity, Culture, and Organisation (Level 4)</i>	Identify groups trained to help in different types of crises and their role in an disaster.	On a chart or mind map, identify the individuals and groups of people who help during a disaster and describe their roles. Include how they (students) can assist others in a disaster.	Identify the effects of a disaster Section A: Activity 4 Helping Section A: Activity 6 Class visit Section D: Activity 1

Science		Senior unit	
Achievement objectives	Learning intentions <i>Students will:</i>	Assessment criteria suggestions <i>Students will:</i>	Activities
<p>Appreciate that water, air, rocks and soil and life forms make up our planet and recognise that these are also earth's resources.</p> <p><i>Planet Earth and Beyond: Earth Systems (Level 3/4)</i></p>	<p>Identify the physical phenomenon that cause natural disasters (eg weather patterns, movement of tectonic plates).</p> <p>Explain how a natural disaster, specific to their community, is caused.</p>	<p>Present their investigations about the causes of earthquakes, tsunamis, volcanic action, storms, floods and snowstorms.</p>	<p>What is a disaster? Section A: Activity 2</p> <p>What happens where? Section A: Activity 3</p> <p>Choose activities from <i>Building Science Concepts</i> series:</p> <ul style="list-style-type: none"> • Volcanoes: No 12 (Levels 3/4) • Earthquakes: No 40 (Levels 3/4) • Storms: No 50 (Levels 3/4) <p>Research:</p> <ul style="list-style-type: none"> • plate tectonics • how New Zealand was formed • New Zealand's geological features • weather patterns. <p>Contrast and compare New Zealand to a continent.</p> <p>Use WickED science interactives: www.tki.org.nz/r/wick_ed</p>

English		Senior unit	
Achievement objectives	Learning intentions <i>Students will:</i>	Assessment criteria suggestions <i>Students will:</i>	Activities
<p>Integrate sources of information, processes, and strategies with developing confidence to identify, form, and express ideas.</p> <p><i>(Levels 3/4)</i></p>	<p>Gather and process information on disasters from a range of texts.</p>	<p>Share their understanding in a variety of ways, for example oral presentations, interviews, PowerPoints, debates, factual recounts, flow charts, Venn diagrams, mind maps, charts and so on.</p>	<p>This resource provides numerous opportunities for speaking, writing, presenting, listening, reading and viewing activities, such as:</p> <p>What is a disaster? Section A: Activity 2</p> <p>What happens where? Section A: Activity 3</p> <p>After a disaster Section D: Activity 2</p> <p>Identify the effects of a disaster Section A: Activity 4</p> <p>Historic events Section A: Activity 5</p> <p>Feelings and emotions Section D: Activity 3</p>

Unit overview: Senior

Section A: Reducing the risk – making ourselves aware	Section B: Let's get ready – and stay prepared	Section C: Time to practise – responding the right way	Section D: Be a survivor – recovery from disasters
Activity 1: Identify hazards (Health and Physical Education) <i>Identify and locate potential hazards, explain their effect and discuss how people can deal with them.</i>	Activity 1: Emergency survival items (Health and Physical Education) <i>Identify the emergency survival items required at school and at home. Explain their purpose.</i>	Activity 1: Practise scenarios (Health and Physical Education) <i>Practise a range of emergency drills at school and at home using different scenarios.</i>	Activity 1: Class visit (Social Sciences) <i>Investigate how the local civil defence emergency management office prepares for and responds to a disaster.</i>
Activity 2: What is a disaster? (Health and Physical Education, Science, English) <i>Identify a variety of disasters and become more aware of how people can prepare for them.</i>	Activity 2: Emergency plans (Health and Physical Education) <i>Review and become familiar with the school's emergency response procedures and create a home emergency plan with families.</i>	Activity 2: Encourage others to practise (Health and Physical Education) <i>Take action to encourage others to practise emergency drills and response procedures.</i>	Activity 2: After a disaster (Health and Physical Education, Social Sciences) <i>Research and summarise safe practices after a disaster.</i>
Activity 3: What happens where? (Social Sciences, Science, English) <i>Investigate disasters that have happened locally, discuss the effects and predict what is likely to affect the area in the future.</i>	Activity 3: Identify special needs (Health and Physical Education) <i>Identify the special needs of members of the community in a disaster. Discuss how to help.</i>		Activity 3: Feelings and emotions (Health and Physical Education, English) <i>Explore and demonstrate ways people could cope with their feelings and emotions if a disaster happened.</i>
Activity 4: Identify the effects of a disaster (Social Sciences, English) <i>Research a disaster, identify the effect on the community and discuss how individuals can take responsibility.</i>	Activity 4: School safety preparation (Health and Physical Education) <i>Analyse and improve the effectiveness of the school's emergency procedures.</i>		
Activity 5: Historic events (Social Sciences, English) <i>Research an historic disaster and explore how people respond to a disaster.</i>			
Activity 6: Helping (Social Sciences) <i>Identify different groups of people who help during a disaster and describe their roles and functions. Discuss and practise what they could do to help.</i>			

Section A: Reducing the risk – making ourselves aware

Activity 1: Identify hazards

Resources:

- Template 18: *Hazard hunt* (page 97)
- a) Students identify potential hazards at school, on the way home and at home. List the hazards and draw a plan or picture showing the hazards and their location.
- b) Students write about how each hazard could affect them, how to make others aware, and how to diminish the likelihood of the hazard occurring.

Homework: Identify the hazards




Students draw a plan of their home or parts of their home that show the hazards and how to deal with them. Alternatively, students design a cartoon or poster to display at school encouraging others to avoid a hazard.


Useful templates

Template 3: *Home hazard map*
Template 18: *Hazard hunt*

Activity 2: What is a disaster?





Resources:

- Choose from: *The Sleeper Wakes* by David Hill; *Flood* by Sonny Mulheron, School Journal Part 2, No 2, 2004; *Events in New Zealand History* by Kevin Boon; or similar
- *What's the Plan Stan Stories* or **CD-Rom** 
- a) Refer back to the previous activity on hazards. Discuss the difference between everyday hazards and potential hazards in a disaster.
- b) Read the novel *The Sleeper Wakes* or a story with a disaster or survivor theme such as *Flood* by Sonny Mulheron as an introductory activity. Disaster stories can also be found in *What's the Plan Stan Stories* or on the **CD-Rom**  or www.whatstheplanstan.govt.nz .
- c) Brainstorm a list of disasters. Try classifying these in different ways such as impact, cause or likelihood.

- d) Explore books, photo cards, the **CD-Rom**  and internet to gather information to define disasters. Useful books to explore are the Kevin Boon Series *Events in New Zealand History*. See 5.2 *Other resources* (pages 99-103).
 - *The Wellington Flood*
 - *The White Island Eruption*
 - *The Napier Earthquake*
 - *The Influenza Epidemic*
 - *The Tangiwai Rail Disaster*
- e) Use 3.8 *Disaster fact sheets* on pages 58-66 to help students understand the different types of disasters and what to do before, during and after each. For each of the six disaster types, choose the learning activities that best suit the needs of your class. You could use a workstation approach to these activities, or assign individual disasters to groups that report their findings back to the class. Homework for each disaster is included so parents and families can also participate.

Activity 3: What happens where?





Resources:

- Template 15: *Map of New Zealand* (page 94)
- Template 16: *Plus, minus and interesting (PMI) chart* (page 95)
- *What's the Plan Stan* **CD-Rom**  or www.whatstheplanstan.govt.nz 
- a) Using Template 15: *Map of New Zealand*, ask students to indicate where they think the following have occurred:
 - serious floods where homes have had to be evacuated
 - earthquakes (show the fault lines)
 - volcanic activity
 - tsunamis.
- b) Students use books, the **CD-Rom**  or www.whatstheplanstan.govt.nz  to find out what disasters have happened in New Zealand, and where. They could note disasters that have happened in their local community or are most likely to affect the area in the future.

- c) Students complete Template 16: *Plus, minus and interesting (PMI) chart* to sort the information they have found out as 'plus', 'minus' or 'interesting'. Or they could use a T-chart to compare their first map with the information they have found. These could be taken home to share with families.
- d) Use IT to link your students with a school in a totally different environment, for instance a school on the coast could be paired with a school in an inland mountainous area, or you might be able to pair with a school in an overseas country. Compare the possible disasters that could or have occurred in their environments.

Activity 4: Identify the effects of a disaster

Resources:

- CD-Rom  or www.whatstheplanstan.govt.nz 
 - Template 17: *Identifying the effects of a disaster* (page 96)
- a) Students work in groups to identify the effects of a disaster and understand some of the complexities involved in responding to a disaster. Each group chooses a disaster and imagines they are responsible for younger family members or pets. Ask questions like:
 - How can this disaster happen?
 - What dangerous things or damage might happen?
 - What could we do to help our families or siblings?
 - b) Groups use resources such as books, the CD-Rom  or www.whatstheplanstan.govt.nz  to complete Template 17: *Identifying the effects of a disaster*.
 - c) Groups could present their findings to the class or other groups.

Activity 5: Historic events

Resources:

- *The Influenza Epidemic* by Kevin Boon
- NZ History website www.nzhistory.net.nz
- *Te Ara – the Encyclopaedia of New Zealand* www.teara.govt.nz

- a) Explore an historic disaster such as the Spanish Flu in 1918–19 to focus on the impact of disasters on individual lives. *The Influenza Epidemic* by Kevin Boon is a useful resource for this, and the NZ History website www.nzhistory.net.nz has recordings of people talking about their experiences.
- b) Students use these resources to write and interview someone about their experiences living through a disaster. Students prepare their questions in advance and record these interviews for future reference.
- c) After interviewing or researching historic events, students write a report that identifies the short-, medium- and long-term consequences of the disaster they focused on.
- d) Students could:
 - write and share a feelings poem that explores the thoughts and feelings of people who have experienced a historic disaster, or
 - role-play an event and present it to the class or assembly, or
 - prepare and film a news item about the event.

Activity 6: Helping


Resources:


- Civil defence emergency management staff at your local council and emergency services
- a) Make a list of groups of people who can help in a disaster. Emergency management staff at your local council may be able to help you with this information.
 - b) Invite a guest from the civil defence emergency management office at your local council, police, fire, Red Cross, Order of St John, Search and Rescue or helicopter rescue services; or visit them. They work with students to demonstrate what they might do in a disaster, or teach the students procedures for helping others, such as first aid.
 - c) Discuss the ways students could help others in a disaster. For example, they could help younger students, the elderly, people with special needs, and pets.
 - d) Arrange for students to spend time in a kindergarten, with younger students, or with the elderly to get a better understanding of their needs in a disaster and how they could help.

Section B: Let's get ready – and stay prepared

Activity 1: Emergency survival items

Resources:

- CD-Rom 
 - Template 4: *Survival items 'cut and stick' sheet* (page 82)
 - Template 5: *Emergency survival items at home* (page 83)
- a) Discuss the possibility of having to stay at home without help for up to three days or more in the event of a disaster. Arrange a selection of items, including both necessary emergency items and things that would not be needed. Ask students to decide which items could be emergency survival items and why.
 - b) In pairs, ask students to brainstorm all the emergency survival items they might need in a disaster. Get them to draw and label the items. Ask questions such as:
 - What items do you think you need and why?
 - Why do you think you need these items?
 - Where do you think you should keep them?
 - How many should you have?

- c) Make an emergency kit for the classroom. Encourage the students to explore the kit, reviewing what and how things work. Practise tuning radios, using tin openers, putting batteries in a torch, and become familiar with the civil defence siren 'sting' alert' on the CD-Rom .

Homework: How quickly can you exit?

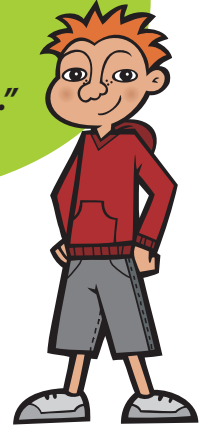
Students take home Template 5: *Survival items 'cut and stick' sheet* and tick the items they have and can easily find at home. Send a letter to their parents or caregivers with discussion points and a checklist of emergency survival items.

Useful templates

Template 4: *Survival item 'cut and stick' sheet*

Template 5: *Emergency survival items at home*

"Check out your school's emergency procedures. There may be different plans for different disasters, and for inside and outside the classroom."



Activity 2: Emergency plans

Resources:

- School evacuation plans and emergency response procedures
 - Template 16: *Plus, minus and interesting (PMI) chart* (page 95)
- a) In groups, students review the school's relevant evacuation plans and emergency response procedures. They then note the positive, minus and interesting points related to the plans on Template 16: *Plus, minus and interesting (PMI) chart*.

Discuss these as a class to ensure that everyone knows what to do in the event of a disaster.
 - b) Buddy up with a younger class in the school or at a local primary school. Show them what they need to do in a disaster, according to the school's emergency planning.
 - c) Make a book for junior school students, explaining what to do before, during and after a particular type of disaster at school.
 - d) Make a PowerPoint of evacuation plans and emergency procedures to be used for new students.

Extra for more able students: Go to a local rest home, library, theatre or similar venue and gather information to create a PowerPoint showing their evacuation plan and emergency procedures.

Activity 3: Identify special needs

Resources:

- Questionnaire and analysis materials and tools
- a) Students prepare a questionnaire or checklist for people in their neighbourhood, or their extended family, to find out how prepared they are for disasters and what special needs they would have (for example, elderly, people with special needs, pets, farm animals).

Homework: Questionnaire

Students survey at least three neighbours or extended family using their questionnaire or checklist to find out how prepared they are for disasters and what special needs they would have.

- b) Analyse and graph these results at school. Students could suggest ways to help others to be better prepared and to deal with any special needs they would have in a disaster. Allow students time to implement these suggestions.

Activity 4: School safety preparation

Resources:

- Map of the school
- School emergency evacuation plans and response procedures
- a) Assign groups of students to examine different parts of the school, such as classroom blocks, library, hallways, staffroom, office and assembly hall. Ask the students to:
 - make sure all emergency exits in these parts of the school are signposted and if there is a regular checking process to ensure that these exits are useable
 - make a map of this part of the school, showing where the emergency exits are, and display these in the rooms
 - find out which emergency evacuation plans and response procedures apply to these parts of the school, and if there are any gaps
 - locate points to turn off power, gas and water in this part of the school.



“Be careful when showing your students these points. Gas should only be turned off in the event of a disaster, if there’s a fire or you can smell gas. That’s because once it’s turned off, you’ll have to get the gas company in to turn it back on.”

- a) Encourage students to demonstrate emergency response procedures in their parts of the school to other teachers and students.
- b) If the school has pets or animals, discuss their requirements in a disaster. Draw a flow chart to demonstrate this.
- c) Take digital photos of all parts of the school and use them to demonstrate evacuation plans and emergency procedures.

Homework: Find it!

Students locate the power, gas and water at home with an adult. Draw a map to show these points and display it in a prominent area in their house.

Section C: Time to practise – responding the right way

Activity 1: Practise scenarios

Resources:

- Template 1: *What if cards* (page 75)
- a) Practise a range of emergency drills as a class or whole school. Discuss scenarios such as what to do:
 - at lunchtime or during breaks
 - if travelling to and from school
 - if the teacher isn't at school and there is a reliever.
- b) Using Template 1: *What if cards*, students work in small groups and act out what they could do in different situations. The www.whatstheplanstan.govt.nz website and CD-Rom contain a list of discussion points to consider when using these cards. Give each group different scenarios and ask them to discuss and share these with their peers, other students or their families.

Homework: What if?

Students make up their own *What if* cards or design a game involving the *What if* cards.

Useful templates

Template 1: *What if* cards

Activity 2: Encourage others to practise

Resources:

- Various, according to chosen activity
- Template 6: *Letter to parents – household emergency plan* (page 84)
- a) Brainstorm ways for students to encourage others to practise emergency drills and response procedures. For example:
 - Design posters for display around the school that show what to do in different disasters, or create a webpage for the school website.
 - Make a play, rap, song or dance that demonstrates the importance of practising emergency drills.
 - Design picture information cards for ESOL students and students with special needs.
 - Work with teachers to organise emergency drill practices. For example, students could suggest holding an earthquake practice with younger students, or while having school assembly.

Homework: Household emergency plan

Students create or review their household emergency plan with their families. Together they brainstorm situations when they may need to leave their house and when it may be safer to stay indoors. For example, it might be safer to stay indoors during a big storm but what about during a flood? Encourage students to come up with their own plan and to add any details they think are necessary while keeping it simple. Send a letter to their parents or caregivers with suggestions for discussion and a template for the plan.

Useful templates

Template 6: *Letter to parents – household emergency plan*

Section D: Be a survivor – recovery from disasters

Activity 1: Class visit

Resources:

- Civil defence emergency management staff at your local council or other emergency services
- a) Arrange a visit to a variety of places or have someone come and visit your class or school. Some suggestions are:
- civil defence emergency management office at your nearest council
 - police search and rescue team
 - mountain clubs
 - fire service
 - ambulance
 - army.

The students may be able to come up with some suggestions for places they might like to visit.

- b) Students plan what they want to find out during the visit. For example:
- Who takes over or helps during a disaster?
 - When do they take over?
 - Who and what are their roles?
 - Who and what is civil defence and what is their role?
- c) Students could undertake practical activities, such as first aid; making shelters; cooking on a primus, gas cooker or barbecue (with adult supervision).

Activity 2: After a disaster

Resources:

- Template 14: *Health rules after disasters* (page 93)
- a) Students research the 'dos and don'ts' for immediately after a disaster. Template 14: *Health rules after disasters* is useful for this.

- b) Students produce a pamphlet outlining safe practices such as:
- preparing drinking water
 - sewage disposal
 - what do we eat first and how much
 - identifying ongoing hazards after the event.

Homework: Pamphlets

Students finish these pamphlets for homework and share them with their families.

Activity 3: Feelings and emotions

Resources:

- Choose from Template 1: *What if cards* or stories such as the *What's the Plan Stan Stories* or *Flood* by Sonny Mulheron, School Journal Part 2, Number 2, 2004
- a) Read some of the *What if* scenarios, a story from *What's the Plan Stan Stories* or a story such as *Flood* by Sonny Mulheron that explores characters' feelings. Discuss the characters' feelings and responses that are part of grieving, loss or feeling scared. Brainstorm a list of feelings that people in the scenarios may have experienced.
- b) Students choose a character from a story or scenario and draw a picture or create a model to express their feelings and responses.
- c) Students share these drawings or models with others and explain how they would try to deal with these feelings if they were in the same situation.

"There are also more ideas in the Ministry of Education's Curriculum in Action resource Change, Loss and Grief, Learning Media, Wellington, 2000."



Assessment

Students' success criteria can be used as a form of formative or summative assessment. Students could self or peer assess against the set criteria. This can be done verbally or with charts as shown in the examples below.

Learning area: Health and Physical Activity

Personal Health and Physical Development (3A3)

Learning intention: *Students will identify and list a range of disasters and explain how to respond in a variety of situations.*

Success criteria	Continuum	Comment
I can list or talk about a range of disasters.	<hr/> 1 2 3 4 5	
I can explain what I would do if there was a disaster:	<hr/> 1 2 3 4 5	
• at school	<hr/> 1 2 3 4 5	
• at home	<hr/> 1 2 3 4 5	
• when I'm on holiday	<hr/> 1 2 3 4 5	
• while going to or from school.	<hr/> 1 2 3 4 5	
I have discussed a household emergency plan with my family.	<hr/> 1 2 3 4 5	
I have taken action to practise the school's emergency procedures and inform others of these plans.	<hr/> 1 2 3 4 5	

Healthy Communities and Environments (3D3)

Learning intention: *Students will review the school's relevant response procedures and emergency evacuation plans and take action to enhance their effectiveness.*

Students critique the school's relevant evacuation and emergency response plans (eg using a PMI). They can present a case for improvements to a specific plan to enhance its effectiveness.

Healthy Communities and Environments (4D3)

Learning intention: *Students will describe their local community's needs in the event of a disaster and take action for the care and safety of people in their family and community.*

Students prepare a chart, checklist or report identifying how specific groups in the local community might prepare for and respond to a disaster. Include a summary of the action they have taken to help others prepare. The following chart could be used:

What help do members of our local community need in the event of a disaster?	
Examples	
What action have you taken to help others prepare for a disaster?	
Name/group	Action/s taken

Learning area: Social Sciences (Level 4)

Place and Environment (Level 4)

Learning intention: *Students will explain the ways in which people have responded to disasters and explore the consequences of decisions made.*

Students can research and present a report on a local or national disaster, investigate how communities responded and explain what has been learned from it.

Identity, Culture and Organisation (Level 4)

Learning intention: *Students will identify groups trained to help in different types of crises and their roles.*

Students can complete a mind map to identify groups of people who can help during a disaster, and describe their roles.

Learning area: Science (Level 3/4)

Planet Earth and Beyond, Earth Systems (Level 3/4)

Learning intention: *Students will identify the physical phenomenon that cause natural disasters (eg weather patterns, movement of tectonic plates).*

The suggested science activities will contribute to students' deeper understanding of how disasters can happen. Design assessment criteria to fit selected achievement objectives and learning intentions.

Learning area: English (Level 3/4)

Learning intention: *Students will gather and process information on disasters from a range of texts about disasters.*

Section A: Activity 2 – *What is a disaster* and the reports or mind maps students completed in Section A: Activity 3 – *What happens where* could be assessed in terms of how well the students read and gathered information from various sources.

If students prepared and presented an interview on a person who had experienced a disaster in Section A: Activity 5 – *Historic events*, this may present a further opportunity to assess speaking, writing and presenting skills.

Observe the students carefully while they complete this work, and record your observations.

3.5 Inquiry model

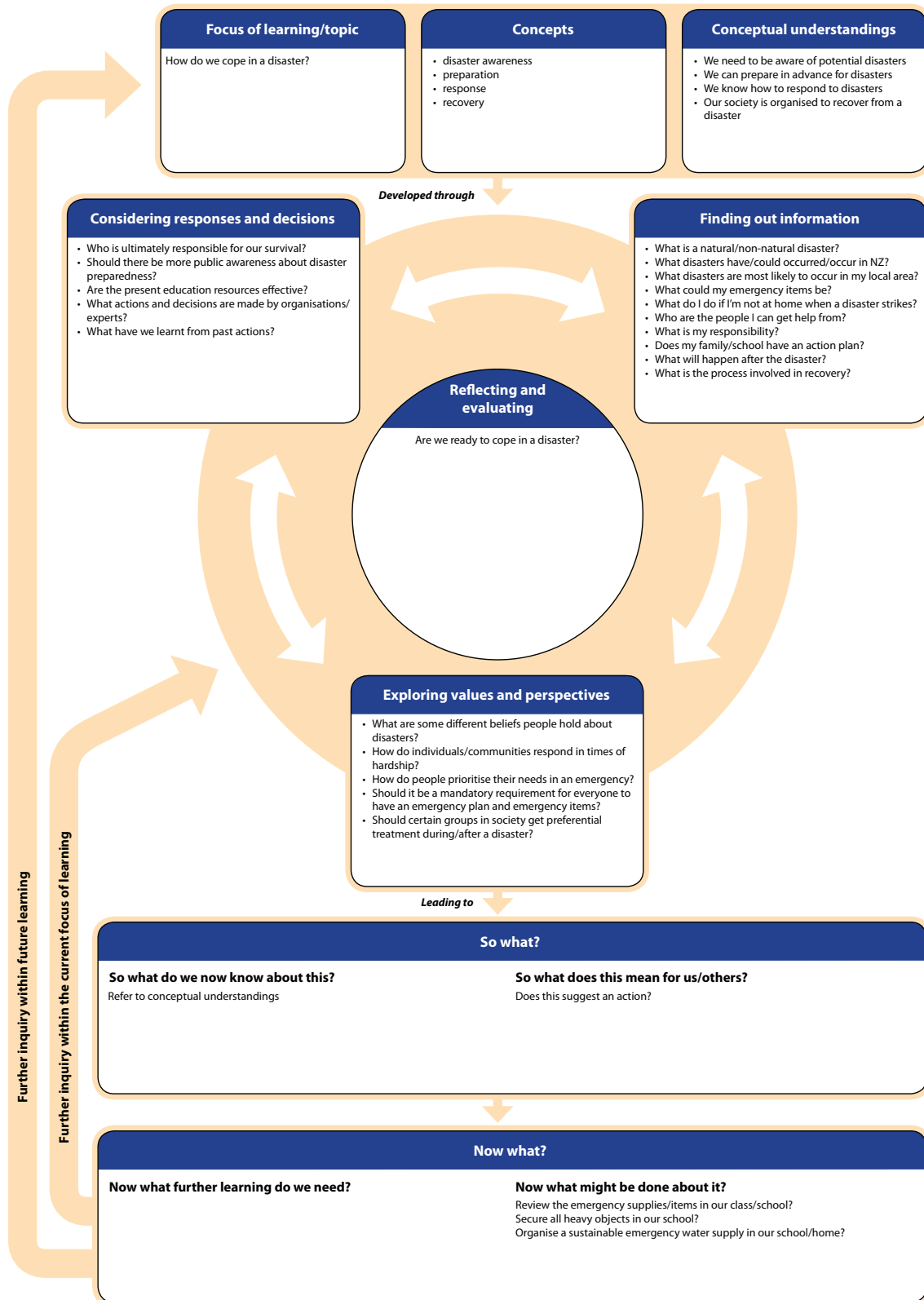
The following social inquiry model, taken from *Building Conceptual Understanding in Social Sciences*¹, will help your students explore how they and others can keep safe in disasters.

This social inquiry model:

- identifies the key concepts likely to emerge, highlighting those which are most central to the understandings promoted during the inquiry process
- provides sample focus questions to guide the collection of relevant information to support the inquiry (the unit plan and templates could be used to further support students' inquiry)
- emphasises the social aspect of the inquiry by offering you a set of prompts for values and perspectives that explore different views of disaster awareness
- shows how your students will reflect on and evaluate understandings and responses throughout the process
- identifies success criteria that relate to the conceptual understandings identified and provides opportunities for formative assessment.

Sample disaster awareness social inquiry model

What's the Plan Stan? – Years 4–6



¹ This template is taken from a social inquiry overview diagram originally adapted from B. Hill and G. Aitken's social inquiry model for the Ministry of Education, and published in *Approaches to Social Inquiry from the Building Conceptual Understandings in the Social Sciences* series (Ministry of Education, 2008).

3.6 Related cross-curricular lessons

Here are some suggestions for including disaster awareness as a context for learning across the other essential learning areas of the curriculum, either as one-off lessons or as a series.

Technology and ICT

- Make a container to hold items for a first aid kit.
- Create plans or diagrams of a new product that will help prevent disasters or keep people safe in disasters.
- Design a family emergency plan fridge magnet to inform the family about preparing for a disaster.
- Design a way of collecting fresh water to drink.
- Make a television advertisement advising people what to do in the event of a disaster.
- Create an animated cartoon to encourage people to get ready so they can be prepared and get through a disaster.
- Create a visual presentation for a specific audience to show the school's emergency procedures.

Food Technology

- Find out which food keeps best and why – what food would be best for emergency items, for example dehydrated versus canned food.

The Arts

- Write a song or jingle to remind people to prepare for disasters.
- Act out various disaster scenarios.
- Use musical instruments to explore the sounds of a storm or volcanic eruption.

Mathematics

- Measure the water needed per person per day. Calculate how much your family will need for three days.
- Create surveys to see how well people in your class or school are prepared for disasters.

- Research the height of various tsunamis around the world and graph the results.
- Find out the speed of disasters such as tsunamis and floods, and compare these to the speeds of different types of transport.



Learning Languages

- Discuss events and personal experiences related to disasters – English (speaking).
- Read and gather information on emergencies from a range of texts – English (reading).
- Explore the legend of Mafui'e, the Samoan god of earthquakes – Pasifika.
- Explore the legend of Rūaumoko, Māori god of earthquakes – Māori.
- Use lessons from Kia Takatū, the Ministry of Civil Defence and Emergency Management's resource in Te Reo Māori.

What's the Plan Stan is also useful for LEOTC activities, for instance:

- Shelter-building, using materials such as blankets and ropes.
- Basic first aid instruction from Red Cross or Order of St John.
- Lighting a fire.
- Boiling water.
- Cooking a meal with limited resources.
- Hygiene – cooking and drinking water.
- Making signals to alert people.

3.7 Disaster awareness activities and homework ideas


This section provides activity sheets and homework ideas that you can use as part of the unit plans or as one-off lessons. They are also available on the **CD-Rom**  and www.whatstheplanstan.govt.nz  for cutting-and-pasting into lesson plans as required.

The homework ideas may prompt parents/ caregivers and families to plan and prepare for disasters. They will also help to ensure that work in the classroom is discussed and continued at home.

Activities and homework sheets

Earthquake	52
Tsunami	53
Volcano	54
Storm	55
Flood	56
Non-natural disasters	57



*"You can visit
www.whatstheplanstan.govt.nz 
to find more quizzes, photos
and videos."*

Earthquake activities

<i>Junior</i>	<i>Middle</i>	<i>Senior</i>
<ol style="list-style-type: none"> Discuss with class: <ul style="list-style-type: none"> What is an earthquake? If there is an earthquake while we are at school, what are the hazards to life and property? Where are the safe places? Give students red stickers (dangerous) and green stickers (safe) to attach to appropriate places around the room. Ask students to draw a map of the class to show the location of the green and red stickers, and label why they have chosen those places. Discuss ways to fix some of the dangerous places so they are safer. Practise Drop, Cover and Hold. 	<ol style="list-style-type: none"> Discuss with class: <ul style="list-style-type: none"> What is an earthquake? If there is an earthquake while we are at school, what are the hazards to life and property? Where are the safe places? Instruct students to draw a map of the classroom and use a colour code on the map to identify dangerous (red) and safe (green) places. Ask them to label their maps to show why each place is safe or dangerous. Instruct students to write some suggestions for making the dangerous places safer. Practise Drop, Cover and Hold. 	<ol style="list-style-type: none"> Discuss with class: <ul style="list-style-type: none"> What is an earthquake? If there is an earthquake while we are at school, what are the hazards to life and property? What is a safe or dangerous place in an earthquake? Divide class into groups to survey various areas of the school (eg classrooms, library, hall) to identify safe and dangerous places. Tell groups to draw maps of their assigned areas, showing safe and dangerous places, and to suggest how dangerous places could be made safer. Ask them to produce earthquake response plans for their areas, and present these to the rest of the school. Practise Drop, Cover and Hold.



Earthquake homework sheet

<i>Junior</i>	<i>Middle</i>	<i>Senior</i>
<ol style="list-style-type: none"> Walk with an adult around your house and decide on the areas that would be safe in an earthquake (green areas) and those that would be dangerous in an earthquake (red areas). Talk to an adult at home about the safe places you found in your house. Show an adult at home how to Drop, Cover and Hold. 	<ol style="list-style-type: none"> Draw a colour-coded map of your house, identifying the areas that would be safe in an earthquake (green areas) and those that would be dangerous in an earthquake (red areas). Interview an adult to see if they understand Drop, Cover and Hold. Draw a cartoon and use speech bubbles to show what they knew about Drop, Cover and Hold. Check if your house has a household emergency plan and emergency survival items. Write a paragraph about the results of your checks, and what your family needs to do to be better prepared for an earthquake. 	<ol style="list-style-type: none"> Survey the different rooms in your house to identify safe and dangerous places in an earthquake. Draw a diagram of your house labelling those areas that would be safe in an earthquake (green areas) and those that would be dangerous in an earthquake (red areas). Label the diagram to suggest how the dangerous places could be made safer. Mark on your diagram where your family's emergency survival items are kept. Write an earthquake plan for your home as a bullet-pointed list, beside or under your diagram.

Tsunami activities

Junior	Middle	Senior
<ol style="list-style-type: none"> Discuss with class: <ul style="list-style-type: none"> What is a tsunami? Are tsunami likely where we live or go to school? Help students to identify on a map the nearest high ground in the area (over 35m above sea level). If there is no high ground, identify the safest route inland (at least 1km inland). Discuss what to do if they hear a tsunami warning. Practise a tsunami warning, and walk as a class to the identified safe point. 	<ol style="list-style-type: none"> Discuss with class: <ul style="list-style-type: none"> What is a tsunami? Are tsunami likely where we live or go to school? Ask students to draw a map of the area around the school showing the nearest high ground (over 35m above sea level). If there is no high ground, draw the safest route inland (at least 1km inland). Discuss what to do if they hear a tsunami warning. Discuss what to do if they feel a strong earthquake and they are at the beach. Practise a tsunami warning, and walk as a class to the identified safe point. 	<ol style="list-style-type: none"> Discuss with class: <ul style="list-style-type: none"> What is a tsunami? Are tsunami likely where we live or go to school? Give students the following choice of topics to research: <ul style="list-style-type: none"> What is a safe place during a tsunami? Where are our local safe places? What heroic deed did British schoolgirl Tilly Smith do during the 2004 Indian Ocean tsunami? What is the difference between <i>near source</i> and <i>far source</i> tsunami, and how should we respond to each? What is our school's tsunami plan?

Tsunami homework sheet

Junior	Middle	Senior
<ol style="list-style-type: none"> Ask an adult at home if a tsunami could affect your house. Identify with an adult the nearest high ground or the safest route inland from your house. Go for a walk with your family to practise moving to your safe point. Draw a picture of your family at the safe point. 	<ol style="list-style-type: none"> Decide with an adult at home if a tsunami could affect your house. Draw a map of the area around your house, showing the route to the nearest high ground or the safest route inland. Share your map with an adult at home, and ask them to add any comments about your plan. 	<ol style="list-style-type: none"> Decide if a tsunami could affect your house. Does your house have a household emergency plan for tsunami? <ul style="list-style-type: none"> If yes, review the plan for your house, and check that it covers everything suggested in www.whatstheplanstan.govt.nz  and the Yellow Pages®. If not, work with an adult to write a plan – www.whatstheplanstan.govt.nz  has ideas for this.




Volcano activities

<i>Junior</i>	<i>Middle</i>	<i>Senior</i>
<ol style="list-style-type: none"> 1. Discuss with class: <ul style="list-style-type: none"> • What is a volcano? • Are there any volcanoes near where we live? • What should we do in a volcanic eruption? • What is a lahar? 2. Ask students to draw a picture of a large bag and the emergency survival items inside, which they and their families should take with them if evacuated during a volcanic eruption. 3. Present the students with different scenarios to check if they have drawn the appropriate items in their bag for different situations. For example, it is dark, have you got a torch; your radio has gone flat, have you got batteries? 	<ol style="list-style-type: none"> 1. Discuss with class: <ul style="list-style-type: none"> • What is a volcano? • Are there any volcanoes near where we live? • What should we do in a volcanic eruption? • What does the word 'evacuation' mean? • What is a lahar? 2. Brainstorm with students how they and their families would prepare if they had to evacuate in an eruption. 3. Ask students to write a play about a family evacuating because of a volcano. Include a list of what they took with them. They could perform this play to another class. 	<ol style="list-style-type: none"> 1. Discuss with class: <ul style="list-style-type: none"> • What is a volcano? • Are there any volcanoes near where we live? • What should we do in a volcanic eruption? • What are the dangers of volcanic eruptions? • What is a lahar? 2. Divide the class into groups. They imagine they are news teams covering an eruption. They produce a newspaper page, or radio or television broadcast about an imaginary evacuation from a volcanic eruption. They must include advice on what to do before, during and after an eruption. 3. Allow students to present their articles or programmes.


Volcano homework sheet

<i>Junior</i>	<i>Middle</i>	<i>Senior</i>
<ol style="list-style-type: none"> 1. Take home your picture of the bag containing the emergency survival items. 2. Tick the items in your bag that you and an adult at home can find in your house. 3. Draw or make a list (with help from an older person) of anything in your bag that you cannot find in your house. 	<ol style="list-style-type: none"> 1. Take your play home and discuss it with an older person. 2. Check if you can find all the emergency survival items in your house. List any that you cannot find, and describe what your family could do to get them. 3. Discuss with an adult at home what happens to pets during an evacuation. Write an emergency plan for looking after your pet in an eruption, or for an imaginary pet if your family does not have an animal. 	<ol style="list-style-type: none"> 1. Become an investigative reporter. Write a newspaper article about the readiness of your house for an eruption. For example, have you got a household emergency plan and emergency survival items? 2. Interview an adult at home as part of your article. You may want to tape or video it. Find out if they are prepared for a volcanic eruption or emergency evacuation.

Storm activities

Junior	Middle	Senior
<ol style="list-style-type: none"> Discuss with class: <ul style="list-style-type: none"> What is a storm? What could happen in a storm? Has our area ever suffered from a storm? Identify the safest places in the class to shelter in a storm, and also the most dangerous places (such as windows, metal and electrical fixtures). Ask students to make a small handheld lollipop sign (red one side and green the other). Stand in different parts of the classroom and display the green side to show a safe area or the red side to show a dangerous area in a storm. 	<ol style="list-style-type: none"> Discuss with class: <ul style="list-style-type: none"> What is a storm? What could happen in a storm? Has our area ever suffered from a storm? Divide the class into groups to make a chart that shows the advice, which they think would appear on www.whatstheplanstan.govt.nz  about what to do before, during and after a storm. Groups compare their predictions with the actual information on the website. They can highlight matching ideas and add missing ones to their chart. Use their charts to make a poster about what to do before, during and after storms. 	<ol style="list-style-type: none"> Discuss with class: <ul style="list-style-type: none"> What is a storm? What is a tropical cyclone? What could happen in a storm? Has our area ever suffered from a storm? Instruct students to research the <i>Wahine</i> storm (Cyclone Giselle) on the CD-Rom  or the internet. Ask students to identify the hazards that occurred on land during the <i>Wahine</i> storm, and to design safety guidelines that address each identified hazard. Ask students to compare their safety guidelines with those on www.whatstheplanstan.govt.nz  and the Yellow Pages®. Add anything they have not covered to their guidelines.

Storm homework sheet

Junior	Middle	Senior
<ol style="list-style-type: none"> Identify safe and dangerous areas in your house with help from an adult at home. Ask an adult at home if they have ever been in a storm. With their help, write a sentence about what it was like for them. Discuss with an adult what you should do with pets during a storm. Draw a picture showing what you should do. 	<ol style="list-style-type: none"> Interview an adult at home if they have ever been in a storm. List key words and sentences about their experiences. Imagine there was a major storm tonight, and you had to rely on your emergency survival items as they are right now. Check the list of emergency survival items on www.whatstheplanstan.govt.nz  with an adult, and write down the items you have and those you don't. If there are items missing, tell an adult at home. 	<ol style="list-style-type: none"> Interview an older person about their memories of the <i>Wahine</i> storm (Cyclone Giselle) in 1968, or another storm they experienced. Write a paragraph about the things the person did to keep themselves safe during the storm. Check your family's emergency survival items at home. If there are items missing, tell an adult at home.




Flood activities

<i>Junior</i>	<i>Middle</i>	<i>Senior</i>
<ol style="list-style-type: none"> 1. Discuss with class: <ul style="list-style-type: none"> • What is a flood? • Are we at risk of a flood? • Have we ever had floods here? • How high did the water reach? 2. Brainstorm the effects of a flood in the classroom and consider possible damage (such as computers ruined, wet books, the playground is underwater). 3. Discuss what to do to lessen damage before a flood occurs, and how to keep safe. 4. Discuss and write a sentence about what to do in a flood at school. 5. Practise a class evacuation to high ground. 	<ol style="list-style-type: none"> 1. Discuss with class: <ul style="list-style-type: none"> • What is a flood? • Are we at risk of a flood? • Have we ever had floods here? • How high did the water reach? 2. Using digital photos of the classroom, students label what would be underwater in floods of differing levels. (If known, base these on likely levels for your school.) 3. Ask them to add text boxes to the digital photos, showing what could be done to minimise damage. For example, turn off electricity, put computers up high, and pick up any books from the floor. 4. Read the school evacuation plan and practise it as a class. 	<ol style="list-style-type: none"> 1. Discuss with class: <ul style="list-style-type: none"> • What is a flood? • Are we at risk of a flood? • Have we ever had floods here? • How high did the water reach? 2. Ask students to list what should be done before, during and after a flood by children, adults or both. 3. Divide the class into two: <ul style="list-style-type: none"> • Those with younger siblings make brochures suitable for the junior and middle school, showing what children should do in a flood. • Those without younger siblings make brochures for parents, outlining what adults can do in a flood.



Flood homework sheet

<i>Junior</i>	<i>Middle</i>	<i>Senior</i>
<ol style="list-style-type: none"> 1. Identify what would be affected by a flood in your house. 2. Talk to an adult at home about what they would do to protect important things in a flood. 3. Ask an adult if they have been involved in floods before. If so, find out what happened so you can talk about it to the class. 	<ol style="list-style-type: none"> 1. Draw your house, and number each place or important object that could be damaged in a flood. 2. Write a key for the numbered drawing, listing what could be done to lessen the damage from floods for that particular place or object. 3. Discuss emergency exits from your house with an adult at home, and add them to your drawing. Point out the emergency meeting place if you need to evacuate. 	<ol style="list-style-type: none"> 1. Take home your brochure. Show them to younger siblings or parents, as appropriate. 2. Make an evaluation of their response to the brochure. Could they understand it? Was it helpful to them? 3. Ask an adult at home about any flood they have been involved in or known about. Write a report about what happened and what they did.


Activities for non-natural disasters


Junior	Middle	Senior
<ol style="list-style-type: none"> 1. Discuss with class: <ul style="list-style-type: none"> • What are non-natural disasters? 2. Read a story about a non-natural disaster (eg a story on the CD-Rom ). 3. Students make a cartoon or use speech bubbles, showing the main character taking the appropriate action. 4. Students explore where they can find out what to do in a non-natural disaster. For example, www.whatstheplanstan.govt.nz  or the Yellow Pages®. 	<ol style="list-style-type: none"> 1. Discuss with class: <ul style="list-style-type: none"> • What are non-natural disasters? • Which types are more likely where we live? 2. Give each group a different type of non-natural disaster. Each group makes a poster about their disaster, leaving the bottom third of the page empty. 3. Let groups present their posters to the class. After each presentation, discuss with the class what they should do in that disaster. Refer them to www.whatstheplanstan.govt.nz  or the Yellow Pages®. 4. Instruct groups to add 'what to do' information in the bottom third of their poster. 	<ol style="list-style-type: none"> 1. Discuss with class: <ul style="list-style-type: none"> • What are non-natural disasters? • Which types are more likely where we live? 2. Allow students to each choose an historical non-natural disaster to research. 3. Instruct them to research the correct responses for that type of disaster. 4. Ask students to design a board game about their chosen disaster, which rewards correct emergency response action before, during and after the event. 5. Allow them to trial their games with classmates or other syndicates.

Non-natural disasters homework sheet

Junior	Middle	Senior
<ol style="list-style-type: none"> 1. Show an adult at home the civil defence section in the Yellow Pages®. 2. Use www.whatstheplanstan.govt.nz  or the Yellow Pages® to find out what to do in the type of disaster you have been studying. 3. Write a sentence or draw a picture to show what you have learned to do in that type of disaster. 	<ol style="list-style-type: none"> 1. Interview an adult at home about what to do in a non-natural disaster (choose another type of disaster than the one your group studied at school). 2. Make a cartoon with speech bubbles showing what to do before, during and after that type of disaster. 3. Use www.whatstheplanstan.govt.nz  or the Yellow Pages® to check your cartoon covers all the important points. 	<ol style="list-style-type: none"> 1. Make a television commercial on video or a brochure to advertise the website or resource that you used to research your chosen disaster. Your commercial or brochure should also promote the correct response for that type of disaster. Share these with your class. 2. Ask an older person to watch your commercial or read your brochure. Ask them about their response and whether they feel your family is fully prepared if this type of disaster occurred. 3. Write a short report about the older person's response, and the readiness of your family for this type of disaster.

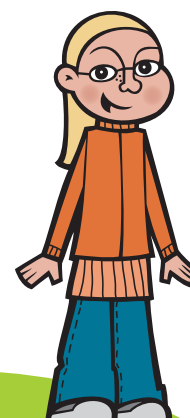
3.8 Disaster fact sheets


The fact sheets in this section provide information about different types of disasters and what do to do before, during and after each type of disaster. While they are designed as a quick source of background information for teachers, they could also be used as reading activities for older students. Visit www.whatstheplanstan.govt.nz  for useful links to further resources.

The fact sheets are also available on the CD-Rom  for cutting-and-pasting into lesson plans.

Fact sheets

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*"There is more information
about disasters on
www.whatstheplanstan.govt.nz *

Fact sheet 1: Earthquakes

What is an earthquake?

New Zealand lies on the boundary of the Pacific and Australian tectonic plates.

Tectonic plates are always on the move. Tension builds up as they scrape over, under or past each other. In some places movement between the plates is happening all the time, causing frequent small or moderate earthquakes. Other areas, where the movement is not constant, are prone to stronger quakes separated by longer periods of time.

Most (though not all) earthquakes occur at faults, which are breaks extending deep within the earth, caused by the movement of these plates. The point under the ground where the earthquake actually begins is called the hypocentre or focus, while the place directly above it on the surface is known as the epicentre.

Earthquakes cause vibration waves to travel through the ground. The first sign of a quake is often the rumbling sound caused by the 'P' (primary or push) waves travelling at about 20,000 kilometres an hour, twenty times faster than a jet aircraft. The 'S' (secondary or shear) waves follow along at about 10,000 kilometres an hour, and cause the main rolling and shaking effects of an earthquake.

There are two ways of measuring earthquakes:

- The Richter scale uses instruments to measure the energy released by the earthquake. The scale ranges from one to nine (the largest so far was the 9.5 Chilean earthquake in 1960). It is a logarithmic scale, which means that a magnitude seven earthquake is 32 times as powerful as a magnitude six quake. The 1855 Wellington earthquake had an estimated magnitude of 8.2, and Napier was struck by a 7.8 quake in 1931.
- The Modified Mercalli (MM) scale is a judgmental measure of intensity based on the effects of the earthquake on people and structures. This scale ranges from MM1 (smallest) to MM12 (largest). The 1855 Wellington and 1931 Napier earthquakes were both MM10 at their epicentres.

What do we do before an earthquake?

- Practise your earthquake drill: **drop, cover** and **hold**.

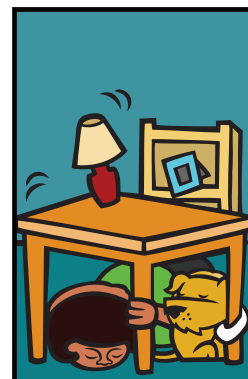
- Identify safe places at home and at school.
- A safe place is under a strong table (remember to hold onto the legs), or next to an interior wall. Take no more than a few steps to avoid injury.
- Talk with your family about an emergency plan and survival items.
- Help your parents to secure heavy items of furniture to the floor or wall. Find out more at www.eq-iq.org.nz.

What do we do during an earthquake?

- If you are inside a building, take no more than a few steps, **drop, cover** and **hold**.
- If you are outside, move no more than a few steps, **drop, cover** and **hold**.
- If you are in the car you should ask the driver to pull over and stop.
- If you are at the beach or near the coast, **drop, cover** and **hold**, then move to higher ground immediately in case a tsunami follows the quake.

What do we do after an earthquake?

- Remember there may be some aftershocks.
- Listen to and follow all instructions from adults or the radio.
- If you are in a damaged building, try to get outside and find a safe, open place.
- Help others who may need it, if you can do so safely.
- Watch out for possible dangers or hazards.
- Remember your prepared emergency plan and follow it, if it is safe to do.



Fact sheet 2: Tsunami

What is a tsunami?

Tsunami is a Japanese word meaning 'harbour wave'. A tsunami is a series of fast travelling waves caused by a large disturbance in the sea or on the ocean floor, such as an earthquake, landslide, volcanic eruption or meteorite. The waves can be separated by as much as an hour, and can travel many thousands of kilometres across oceans at great speeds of up to 800kph.

A tsunami may pass unnoticed as it crosses deep oceans, but it loses speed and gains height when it reaches shallow water. Large waves up to 15 metres or more in height can come crashing onto the land. The effects may become worse in narrow bays and inlets.

Tsunami waves appear either as rapidly moving tides with very strong currents that can wash people and objects out to sea, or as large breaking waves that can cause significant impact damage at the shoreline.

As New Zealand is surrounded by water, many of our coastal communities are at risk from tsunami. These can be caused by distant disturbances (for instance, the Chilean earthquake in 1960), or may be generated closer to our shores (such as the two near source tsunami experienced near Gisborne in 1947).

In a tsunami the water level may fall very quickly below the normal low tide mark then return just as quickly. If this happens, there won't be enough time to issue a warning, so it is important that you know what to do, and that you act quickly.

There are three distinct types of tsunami. The type you encounter depends on the distance you are from the place where it is generated.

- **Distant tsunami** are generated from a long way away, such as from across the Pacific in Chile. In this case, we will have more than three hours warning time for New Zealand.
- **Regional tsunami** are generated between one and three hours travel time away from their destination. An eruption from an underwater volcano in the Kermadec Trench, to the north of New Zealand, could generate a regional tsunami.

- **Local tsunami** are generated very close to New Zealand. This type of tsunami is very dangerous because we may only have a few minutes' warning and damage could be quite significant in specific areas. A landslide in the Hikurangi Trench or a large earthquake from an offshore fault could cause a local tsunami.

What do we do before a tsunami?

- Know if your local area could be struck by a tsunami.
- Talk with your family and prepare an emergency plan.
- Identify safe places close to your home and school – as far inland and as high up as possible.

What do we do during a tsunami?

- Stay calm.
- Leave the area immediately if you are at the beach or near a river when a strong earthquake occurs. Move quickly but safely.
- Go as far inland and as high up as you can.
- Don't go to a river or beach to watch the waves come in if a warning has been issued.

What do we do after a tsunami?

- Listen to, and follow, instructions from adults or the radio.
- Do not go down to the sea or river until you have been told it is safe to do so.
- Help others who may need it, if you can do so safely.



Fact sheet 3: Volcanoes

What is a volcano?

New Zealand is situated on the 'Ring of Fire', a geographic belt encircling the Pacific Ocean and containing about 90% of the earth's volcanoes. There are six active volcanic regions in New Zealand, five in the North Island and one in the northern offshore islands.

Volcanoes come in different shapes and sizes. There are three main types found in New Zealand:

- *cone* volcanoes such as Mounts Ruapehu, Taranaki and Ngauruhoe
- volcanic *fields* such as the ones found in the Auckland area
- *calderas* – large depressions formed by huge explosions, such as Lakes Taupo and Rotorua.

Volcanoes erupt when pressure builds up inside the earth and forces molten rock (magma) towards the surface. Volcanoes usually have short active periods, separated by longer dormant periods. Even extinct volcanoes are capable of coming to life again.

The type of eruption varies according to the amount of dissolved gases in the magma (which determines the explosiveness) and the silica content (which determines the runniness). Some eruptions are explosive, blowing out great volumes of rocks and molten material. Other volcanoes erupt in flows, pouring out clouds of hot gas mixed with small particles, or streams of liquid lava.

Those living in volcanic regions are at risk from ash, debris and lava flows. For example, the eruption of Mount Tarawera in 1886 killed an estimated 153 people. If there is a crater lake or torrential rain, water can mix with volcanic debris to form a swiftly moving avalanche of mud called a *lahar*, like the one that swept off Mount Ruapehu in 1953 and caused the deaths of 151 people in the Tangiwai railway disaster.

It is therefore important to know what to do before, during and after a volcanic eruption.

What do we do before a volcanic eruption?

- Know where active volcanoes are and whether they are likely to affect you.

- Talk with your family about an emergency plan and what you will need at home.
- Talk to your family about an evacuation plan – where to go and how to get there.

What do we do during a volcanic eruption?

- Listen to the radio for instructions.
- Stay indoors – keep windows and doors shut. Bring your pets indoors if you can.
- Save water in your bath and other containers at an early stage, as the water supply may become polluted.
- If outdoors, find shelter.
- If told to leave, cover your face and mouth, wear a dust mask and goggles if you can, and take your essential emergency survival items.
- Do not go sightseeing.
- Take your outer layer of clothing off before entering a building – volcanic ash is difficult to get rid of.

What do we do after a volcanic eruption?

- If in a safe place, stay put.
- Listen to the radio for information.
- Return home only when told.



Fact sheet 4: Storms

What is a storm?

A storm is a disturbance of the atmosphere that can cause strong winds, rain, thunder, lightning, heavy snow and rough seas. A strong wind warning is issued by the MetService when winds of more than 87kph are expected over land.

New Zealand is particularly prone to storms, as it lies in the 'roaring forties', between 40 and 50 degrees latitude south, where mild air temperatures from the north meet cooler air from the south.

Tropical cyclones (called hurricanes in the Atlantic and east Pacific, and typhoons in the north-west Pacific) are large revolving storms which develop in the tropics, with a sustained wind speed of more than 120kph.

Tropical cyclones usually weaken as they encounter the cooler sea temperatures around New Zealand, but sometimes they can cause significant damage. In 1988 Cyclone Bola caused New Zealand more than \$200 million in damage, even though it was no longer a tropical cyclone by the time it reached our shores.

Storms have the ability to damage roads, railways, bridges, buildings and telecommunications. Crops and livestock can be affected. At sea, ships are at risk (the ferry *Wahine* foundered during Cyclone Giselle in 1968, with the loss of 51 lives).

Hazards from storms include fallen trees and poles, torn-off roofs, fast-flowing currents in streams and rivers, flying objects, land slips and flooding. Coastal areas can suffer from storm surges, which are extra-high tides caused by the high winds pushing the sea forward.

What is a snowstorm?

Even in small quantities, snow can be hazardous. It only takes a few centimetres on a road to make driving dangerous. In large quantities, snow can immobilise regions by disrupting communications, transport and supply lines, hampering the operation of emergency services, isolating communities, causing the loss of livestock, damaging forests and causing buildings to collapse under its weight. In the depths of winter, heavy snow can lie on the ground for weeks, denying livestock the ability to graze, keeping temperatures low and increasing the risk to the most vulnerable members of the community.

While the coldest winter outbreaks do not tend to bring very large quantities of snow, the combination of very low air temperatures and strong winds results in very low wind chill. Because this can occur even on sunny days, the danger it poses – hypothermia – may not be all that apparent.

Perhaps surprisingly, the heaviest snowfalls seldom occur in the coldest outbreaks. Major storms produce a lot of snow high up in the atmosphere, but most often this melts before reaching the ground. In winter, conditions near the ground are occasionally cold enough for snow to fall all the way to the land surface.

Heavy snow in the mountains often increases the incidence of avalanches. Because of the remoteness of most of New Zealand's mountains, avalanches are probably not significant hazards.

The likelihood of heavy snow is described in the severe weather outlooks, watches and warnings issued by MetService.

Primary concerns are the potential loss of heat, power, telephone service and a shortage of supplies if storm conditions continue for more than a day. It is important for people living in areas at risk from snowstorms to consider the need for alternative forms of heating and power generation.



What do we do before a storm?

When a strong wind warning is issued:

- Listen to your radio for information.
- Bring pets inside if possible.
- Help clear away anything outside that may become a flying missile in the wind.

When a snow warning is issued:

- Listen to your local radio station for information.
- Avoid leaving home unless absolutely necessary.
- If you have to travel, help make sure you are well prepared with snow chains, sleeping bags, warm clothing and essential emergency items.
- Remind your family to check fuel supplies for wood-burners, gas heaters, barbeques and generators.
- Bring pets inside if you can and help move stock to shelter.

What do we do during a storm?

- Stay inside. If outside find shelter quickly.
- Close all curtains to slow down flying glass.
- Stay away from doors and windows. If the wind becomes destructive, shelter further inside the house.
- Stay away from metal and electrical fixtures.

What do we do after a storm?

- Stay indoors and listen to the radio.
- Avoid dangling and broken power lines, if outside.

Fact sheet 5: Floods

What is a flood?

Floods are one of New Zealand's most frequent disasters. They can occur as a result of storms and heavy rain causing rivers to overflow their banks.

Normal rainfall is partly absorbed by the soil and vegetation. The residue runs off the land to form our streams and rivers. Floods occur when there is too much water to be absorbed, and the run-off is too much to be carried by the rivers.

There are three main types of flood:

- Some rivers have periodic floods, forming flood plains. During heavy rain the river overflows its banks into the flood plain.
- Flash floods occur with little advance warning, and are caused by intense rainfall in a relatively small area.
- Coastal areas can occasionally be subject to floods from the sea caused by unusually high tides or tsunamis.

A flood becomes dangerous in the following conditions:

- If the water is travelling very fast.
- If the water is very deep.
- If the floods have risen very quickly.
- If the floodwater contains debris, such as trees and sheets of corrugated iron.

Floodwaters can ravage the land, destroying roads, bridges, railway tracks and buildings. Crops can be inundated and livestock drowned. Human lives are also at risk, particularly in flash floods and tsunamis, where fast-flowing water filled with debris can sweep people away. The waters can even be strong enough to pick up vehicles.

After a flood there will be a lot of damage and pollution to clean up. It may take months or years to recover.

What do we do before a flood?

- Find out about the worst flood in your area and how high the flood waters reached. Would it reach your home?
- Know how to reach the nearest high ground.
- Move animals to safety.

- Keep valuables and some food and water above the high water mark. Attics or upstairs rooms are good places for storage, as long as there is easy access.
- Remind your family to store chemicals in a high, safe place. If a flood occurs and these chemicals leak, they could be dangerous.

What do we do during a flood?

- Listen to your local radio station for information and instructions on what to do.
- Help move household items as high above the floor as possible.
- You may have to move out of the flooded area or go to the nearest high ground.
- Don't go into flood waters alone and don't go sightseeing.
- Take your essential emergency survival items with you if you have to leave your home.
- Remind adults to turn off water, electricity and gas.

What do we do after a flood?

- Only return home once you are told it is safe.
- Do not go sightseeing through flooded areas.
- Do not drink floodwater. It could be contaminated.



Fact sheet 6: Non-natural disasters

What is a non-natural disaster?

Non-natural disasters are caused by human activity. These disasters may be limited to a small area or their effects might be widespread.

Non-natural disasters could include:

- wildfires (also known as bushfires)
- pandemics (Avian or swine flu, SARS)
- biohazards (chemical spills)
- transportation accidents (trains, planes)
- terrorism (bombs, threats).

In these situations, always tell an adult or appropriate authority, and follow instructions.

Wildfires and pandemics

This fact sheet concentrates on wildfires and pandemics.

- A *wildfire* is an unplanned fire that starts outdoors, such as on a grass-covered hillside or in a forest. They become hazards when the fire threatens nearby people or property.

Many houses in New Zealand are surrounded by bush, which makes them vulnerable to wildfire. Even if people do not live anywhere near the bush, they often holiday in areas susceptible to wildfires. So it is important to know what to do.

- A *pandemic* is a widespread outbreak of an infectious disease throughout a region or even the world, for example Avian or swine flu, or SARS (Severe Acute Respiratory Syndrome).

Devastating influenza (flu) pandemics swept the globe three times last century: 1918–19 (Spanish flu), 1957–58 (Asian flu) and 1968–69 (Hong Kong flu). The Spanish flu was New Zealand's worst disaster, killing about 8,600 people in our country and about 50 million worldwide.

Besides the large numbers of deaths caused by pandemics, they also result in huge disruptions to society. Medical services are overwhelmed, schools and businesses close down, transportation and trade is reduced, and borders are closed.

What do we do before a non-natural disaster?

Wildfire

- Make sure that garden hoses are connected to taps and reach all areas of your property.
- Keep your driveway clear so that fire appliances can reach your house.
- Make sure your property is easy to find from the road.
- Plan and practise how you will evacuate.
- Know at least two suitable exit routes from your neighbourhood.
- Make sure you have emergency survival items at home as well as a getaway bag if you have to leave in a hurry.

Pandemic

- Talk to your family and friends about health hygiene – hand washing, and safe coughing and sneezing.
- Make sure you have your emergency survival items.
- Include paracetamol (for fever) in your home emergency survival items.
- Have a plan for what you and your family would do if you had to stay at home, possibly for weeks, during a pandemic.

What do we do during a non-natural disaster?

Wildfire

- Dial 111.
- Follow the instructions of emergency personnel.
- If you have to evacuate:
 - close all doors and windows
 - leave outside doors unlocked so that fire-fighters can get in easily if they have to
 - leave a light on in each room to help improve the visibility for fire-fighters if it is smoky.

- If caught in the open, move to an area with low fuel, such as a clearing, lake or previously burnt ground.
- Don't try to outrun the fire – move across the front of the fire to the flanks (sides).
- Move downhill – the most intense fire will be at the top of hills.
- Don't try to run through the flames unless you can clearly see behind them.
- Try to get in or behind something to avoid the radiant heat.
- Stay low and cover your mouth and nose with a wet cloth.
- For more information, see the New Zealand Fire Service website: www3.fire.org.nz.

Pandemic

- Stay home if you are sick, keep away from other people and avoid visitors.
- Wash and dry your hands before handling food and after coughing, sneezing, using the bathroom, wiping children's noses or when looking after sick people.
- Use tissues to cover coughs and sneezes. Throw used tissues in the rubbish bin.
- Give fluids to people who have a fever and/or diarrhoea. Paracetamol can be used to bring down high fevers.

For more information, see the Ministry of Health website: www.moh.govt.nz/influenza

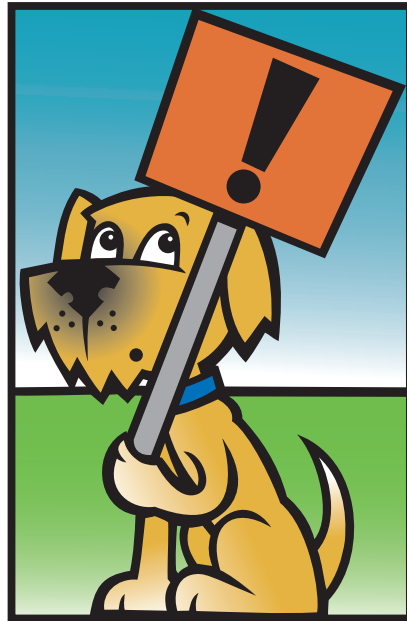
What do we do after a non-natural disaster?

Wildfire

- Do not go sightseeing.
- Beware of hotspots as they can flare up again.

Pandemic

- Listen to the radio for instructions.
- Talk to your family about how you can stay prepared – pandemics often come in waves.



4.1 Why are practices and simulations important?

Practices and simulations can assist students and teachers to become familiar with the immediate action to take to keep safe in the types of disasters that could affect your school.

In addition, the evacuation exercise will help parents/caregivers and whānau know what to expect in the event of a disaster, and what to do if the school has to be evacuated.

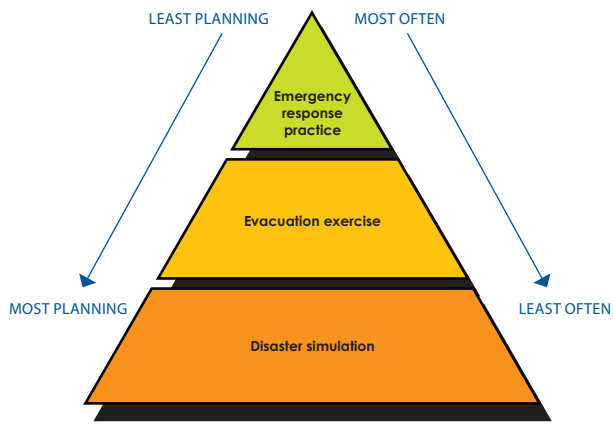
Practices and simulations allow you to evaluate strengths and weaknesses in your school's emergency preparedness.

4.2 Types of practices and simulations

The practices and simulations provided in *What's the Plan Stan* are divided into three main types:

Type	Description	Participants	Frequency	Comments
<i>Emergency response practice</i>	<p>Practise the immediate response that students and teachers should take in the case of a specific disaster.</p> <p><i>Examples:</i></p> <p>Drop, cover and hold during an earthquake.</p> <p>Get down, get low and get out during a fire.</p>	<ul style="list-style-type: none"> • Students • Teachers • Other school staff 	Should be done frequently. We suggest once a term at least.	<ul style="list-style-type: none"> • Helps participants know exactly what to do in case of a specific disaster. • Should be undertaken at different places and locations eg class, playground, assembly, break.
<i>Evacuation exercise</i>	Practise evacuating the school in the case of a disaster, with parents or designated adults picking up their children.	<ul style="list-style-type: none"> • Students • Teachers • Other school staff • Parents/ designated adults 	Done less frequently. We suggest once a year.	<ul style="list-style-type: none"> • Can be combined with emergency response practice. • Helps parents know exactly what to do if the school has to evacuate. • School tests its evacuation procedures.
<i>Disaster simulation</i>	<p>Simulate the response of different people and response agencies in a simulated disaster.</p> <p><i>Example:</i></p> <p><i>Simulating the roles of different groups that can help after a volcanic eruption, tsunami, earthquake etc.</i></p>	<ul style="list-style-type: none"> • Students • Teachers • Other school staff • Response agencies <ul style="list-style-type: none"> • police • fire • ambulance • civil defence emergency management staff 	Done less frequently. We suggest once every two years.	<ul style="list-style-type: none"> • Allows students to find out the roles of different people and response agencies in a disaster.

The diagram below shows the types of practices and simulations that can be undertaken.



The least complex practices that should occur most often are shown at the top of the triangle. Moving down, the activities involve more planning, but can take place less often.

The number of students involved in a particular practice or simulation will also affect the complexity and frequency. For instance, if you do a simulation with your class, it will not require as much planning as one for the whole school, so you can do it more frequently.

4.3 Emergency response practice

The aim of the emergency response practice is to ensure that participants are familiar with the immediate action to take to keep safe in a disaster.

This practice should focus on the type of disasters most likely to affect the school. It should be done at all levels, either as individual classes or as a school.

Practices could be run in different situations, for instance:

- in the classroom
- at assembly
- during lunch-break
- in the library
- in hallways between classes.

Level

Individual classes or as a school: new entrants to Year 8.

Achievement objectives and learning intentions

Achievement objectives	Learning intentions
Health and Physical Education Levels 1-3 Select from: <ul style="list-style-type: none"> • Personal Health and Physical Development (Strand A): Safety Management • Healthy Communities and Environment (Strand D). 	Students will be able to: <ul style="list-style-type: none"> • demonstrate ways to keep themselves safe when a disaster strikes • practise the school's emergency plans and procedures.

Preparing the students

Every student needs to know what to do if a disaster strikes. The *What's the Plan Stan* unit plans provide opportunities for teaching your students the correct responses to the types of hazards that your school faces.

Students with special needs require special consideration. It is important that these students know what to do as far as possible, and that teachers and adult carers have planned their responses in the event of a disaster.

Running the emergency response practice

- The practice should start with a clear command from the teacher, for instance, 'Earthquake - drop.'
- On hearing the command, students should quickly, quietly and without panic take the required action for that type of disaster. For instance, in the case of an earthquake, they would **drop** to the floor, take **cover** and **hold on**.
- Students continue their emergency response until the teacher gives the command 'All clear'.
- Stress the importance of students remaining quiet, so that they can hear the teacher's instructions.
- Remind students to stay calm. They could take deep breaths, or count slowly in a whispered voice. The teacher keeps talking to minimise panic.

Where appropriate, this practice could include evacuation to the designated safe assembly area.

Emergency response practice when no adult is present or able to lead actions

It is possible that the teacher may not be present when a disaster occurs, or may be incapacitated. Classroom discussion and planning should also cover how children should respond without adult supervision. The students should already be practised in evacuation and emergency procedures.

Planning suggestions:

- Nominate a child or children capable of giving directions to the class.
- Let them practise, giving relevant instructions to the class. For instance **'Drop, cover and hold!'** for an earthquake.
- Plan with neighbouring classes to support each other.

After the emergency response practice

After the practice is over, discuss with students:

- their fears and concerns about disasters
- how they could help and comfort each other during and after a disaster
- how they could help and comfort each other in a disaster if they were not with adults
- what they should do next.

Teachers evaluate the effectiveness of the emergency response practice by asking:

- Was the students' response effective?
- Did they know what to do?
- Did the procedures in the school's emergency plan work for the situation in which the practice was held?
- Are there any new factors affecting the plan that need consideration?
- Do the students need more training?

4.4 Evacuation exercise

During or in the immediate aftermath of a disaster, children must not be allowed to make their own way home by themselves. In the event of an evacuation because of a disaster occurring during the school day, it is the staff's responsibility to look after and care for the children until they can be safely returned to their parents/caregivers.

There must be planned, prepared and tested emergency evacuation procedures in place. This is the joint responsibility of the Board of Trustees, principal, staff and parents and caregivers.

An evacuation exercise will test the efficiency of these procedures to quickly and safely evacuate the whole school.

An evacuation exercise may be one of two types:

- Students assemble on site (similar to a fire drill, where children usually stay at school).
- Students are picked up and taken off site by parents, caregivers or other authorised adults. This also ensures parents/caregivers and whānau know what to do if their children are at school when a disaster strikes, and it provides them with an opportunity to test their own household emergency plans.

Level

Whole school: new entrants to Year 8.



Achievement objectives and learning intentions

Achievement objectives	Learning intentions
Health and Physical Education Levels 1-3 Select from: <ul style="list-style-type: none"> • Personal Health and Physical Development (Strand A): Safety Management • Healthy Communities and Environment (Strand D). 	Students will be able to: <ul style="list-style-type: none"> • demonstrate ways to keep themselves safe when a disaster strikes • practise the school's emergency evacuation procedures.

Preparing families

Advise parents and caregivers beforehand of the date and time for the evacuation exercise. They will have to arrange for their children to be collected, either by themselves or by a person authorised by them.

Advise them that the exercise will help them check their household emergency plans for collecting their children if a disaster occurs during school hours, and how and where the family should meet after a disaster.

You can download a blank copy of the Household Emergency Plan from www.whatstheplanstan.govt.nz  or CD-Rom . Use this as a homework activity for students to discuss what they have learned and to involve their families/whānau.

The evacuation exercise also allows you to compile or update the school's list of people authorised by parents/caregivers to pick up their children in the event of a disaster, in case they are not in a position to do so themselves. This list of names could be gathered by:

- sending a form home to be completed
- setting a homework task for students to discuss their plan at home
- using the school newsletter or website
- writing personal letters
- making contact in person.

Update this list every year to ensure it is accurate.

Preparing the school

Ensure all staff are familiar with the school's emergency plan, and that they know the date and time of the evacuation exercise and their roles in the exercise.

During the preceding week, remind children what they need to do when a disaster strikes.

The Ministry of Education has the following resources in the *Education Sectors* section of their website www.minedu.govt.nz:

- *Worksafe at Schools – Emergency Management*
- *Traumatic Incident Management Support for Schools and ECE Services*

Running the evacuation exercise

1. Start the evacuation exercise with an appropriate alarm. This could be verbal commands from the teachers or the school bell.
2. Students take the correct action depending on the type of disaster being simulated. For instance, they could do their earthquake drill of '**drop, cover and hold**'.
3. After a suitable amount of time the teacher talks the children through what has happened, and what they would be doing in a real disaster. For instance, checking that everyone is alright and that no one has been injured.
4. Classes leave their individual rooms and gather at the assembly area. This would normally be the area identified in the school's emergency plan, but bear in mind that the disaster could make it unusable.
5. Teachers check the roll and inform the principal and deputy of the status of their class.
6. Designated staff proceed to their reception points, with a list of pupils and the people authorised to collect them. As parents, caregivers or authorised people arrive to pick up their children, the staff member checks their names on the list before handing the children over. If these staff members are classroom teachers, consider who will look after the children from their class while they are doing this duty.
7. Keep students in the assembly area until they are picked up by their parents, caregivers or other authorised adults.

Exercise evaluation

Assemble all staff participants to discuss if the system worked.

- Did the pupils take the correct action? For example, **drop, cover and hold** in an earthquake.
- Were class registers checked to ensure everyone was present and no one was missing in toilets or on errands?
- Did the move to the assembly area go as planned?
- Was the assembly area checked for hazards, such as broken glass, to ensure it was safe?

- Did the nominated people collect their children?
- Were any children not collected? If so, why not? What happened to them?
- You could also send a letter home asking for feedback from parents, caregivers and whānau. (See Template 19: *Evaluation of evacuation exercise* on page 98 for an example).

Options

This exercise describes a school evacuation. There are other options you may wish to consider, such as:

- individual classroom evacuations
- 'reverse evacuations' or 'lock-downs' where students are kept inside the school because of an outdoor hazard or a criminal/terrorist act
- evacuations to higher ground
- specific emergency procedures and evacuations.

4.5 Disaster simulation

A disaster simulation brings to life the scenes of real emergency response operations, which students may have only previously seen on television.

Students role-play the response after a disaster strikes the school or the mythical town of Stanville. The type of disaster and number of casualties are not revealed beforehand to the students, who will be asked to respond appropriately.

This activity can be undertaken by just one class, several classes together or the whole school.

Additional resources for running disaster simulations can be downloaded from www.whatstheplanstan.govt.nz or the CD-Rom. These include:

- detailed instructions for running a disaster simulation based on the mythical town of Stanville
- templates that you can use or adapt for your simulation
- scenarios for simulations of several other types of disasters.

Level

Can be adapted for new entrants through to Year 8.

Learning intentions and achievement objectives

Achievement objectives	Learning intentions
Health and Physical Education Levels 1-3 Select from: <ul style="list-style-type: none"> • Personal Health and Physical Development (Strand A): Safety Management • Healthy Communities and Environment (Strand D). 	Students will be able to: <ul style="list-style-type: none"> • identify agencies and their roles in a disaster • explain the different roles people fulfil within groups in a disaster • demonstrate the importance of preparation, co-operation and organisation in responding to a disaster.
Social Studies Levels 1-3 Choose appropriate objectives.	

Sample scenarios

Earthquake scenario

You can use this scenario for your students to practise what they should do after an earthquake.

- The teacher leads the scenario the first time you run it.
- Once proficient, run the scenario with the teacher absent.
- Run the scenario once with no injuries and no one missing so students learn the ropes.
- Run again with simulated injuries, or some class members told to remain in the classroom as injured and missing.

Note that the actions taken are generally similar to what happens when the fire alarm goes off, so you may be able to combine this scenario with a fire drill.

Scenario for one or more classes

Give the following scenario to your students:

- You are at school and an earthquake has just occurred. The weather is as it is today.
- The earthquake measured 7.6 on the Richter scale and was shallow at a depth of 10 kilometres. The epicentre was located 20 kilometres from the school. Severe ground shaking occurred for at least 45 seconds.
- A number of smaller earthquakes may keep shaking the ground for many days, weeks and even months, creating further damage or increasing existing damage.
- Damage is widespread throughout your region as well as the surrounding districts. Some roofs have fallen in, side walls have fallen over and verandas have come down. There are cracks in the ground and some sections of the road have sunk to make large holes. Buildings and roads have been damaged and people are disorientated.
- The shaking has now stopped and you begin to emerge from under your shelter, look around and decide on the action to be taken.

Instructions

Give the following instructions to your students:

- Each of you has a role to play in this simulation. We are pretending that our school and the surrounding district have been damaged.
- You may be required to deal with casualties or assist people to evacuate your school. Some people might be injured, for instance with a bleeding nose, broken arms, cuts from glass or being knocked out by falling furniture. You can 'do' first aid by writing what you are doing on a paper or card carried by students who are pretending to be injured.
- The simulation will start and finish when you hear the signal. When the finish signal sounds, you must all immediately assemble at [name of place].

Evaluation

Single class:

- Was order maintained?
- Was a safe assembly point designated?

- Was a roster run to check all present?
- Were those missing or injured notified to the school's emergency coordinator?
- Where a teacher was absent or injured, did someone assume control and were the above four points still covered?

Two or more class rooms:

- Was order maintained?
- Was a safe assembly point designated?
- Was a roster run to check all present?
- Were those missing or injured notified to the school's emergency coordinator?
- Where no teacher was present, did someone assume control of the overall situation, did someone assume control of each individual class and were the above four points still covered?

Alternative scenario for whole school

In the following scenario the school becomes the mythical town of Stanville, which suffers an earthquake.

This disaster simulation is recommended to be run as a whole school exercise. Senior students, with assistance from outside agencies, play the various people and response agencies involved in a disaster.

Juniors can use this simulation as an opportunity to build on what they have already learned in *What's the Plan Stan* by:

- being casualties or children that need to be looked after
- breaking into groups to observe different areas of the simulation
- talking to participants after the simulation about their role.

Scenario

Give the following scenario to your students:

- Today your school is Stanville, a mythical town located somewhere in New Zealand. It is 8.27am. An earthquake has just occurred. The weather is as it is today.

- The earthquake measured 7.6 on the Richter scale and was shallow at a depth of 10 kilometres. The epicentre was located 20 kilometres from the school. Severe ground shaking occurred for at least 45 seconds.
- A number of smaller earthquakes will keep shaking the ground for many days, weeks and even months, creating new damage or increasing existing damage.
- Damage is widespread throughout your region as well as the surrounding districts. Some roofs have fallen in, side walls have fallen over and verandas have come down. There are cracks in the ground, and some sections of the road have sunk to make large holes. Buildings have been damaged and people are disorientated.
- The shaking has now stopped and you begin to emerge from under your shelter, look around and decide on the action to be taken.

Instructions

Give the following instructions to your students:

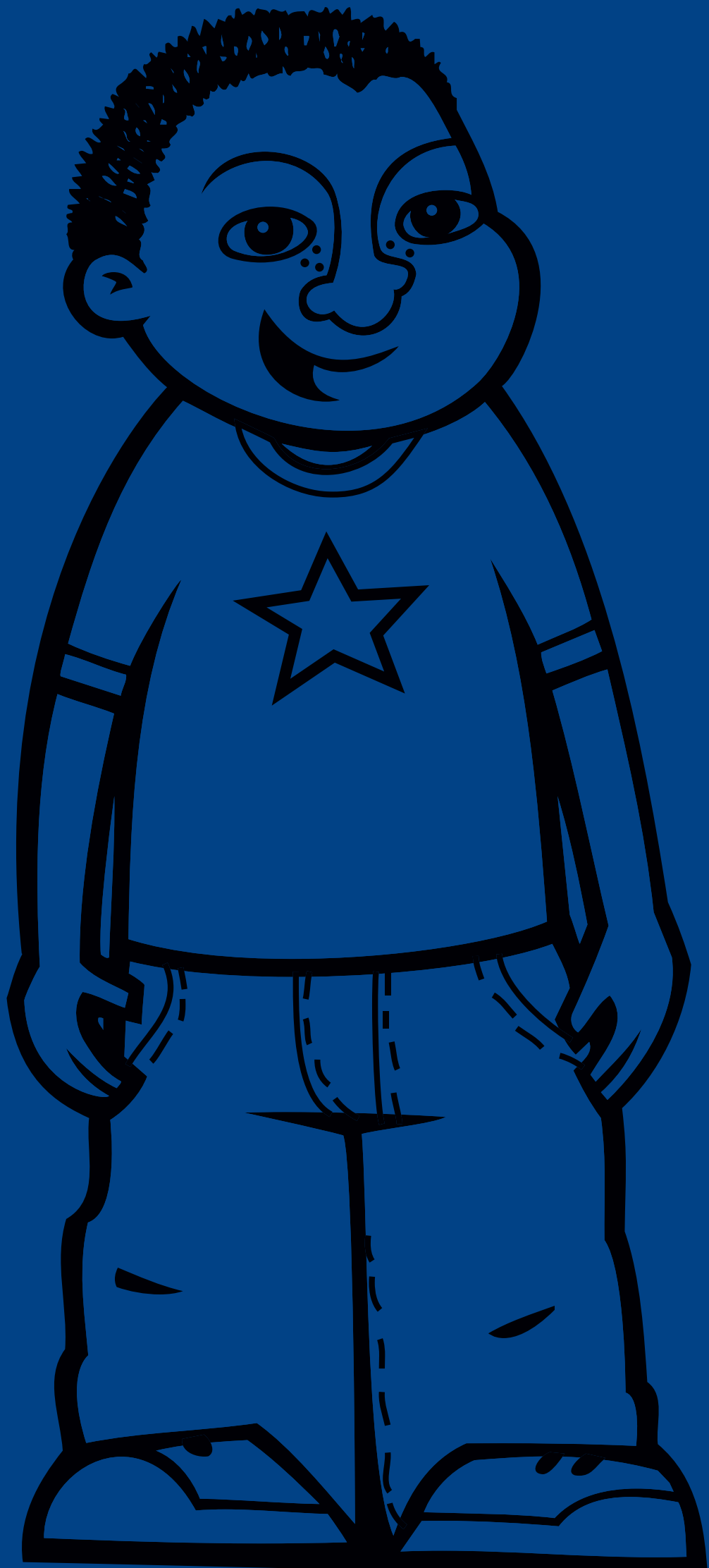
- Each of you has a role to play in the simulation. We are pretending your school is a whole town, so that means you will have to imagine the distances are much greater. Even though you might be able to see a casualty in the playground next to you, they may be pretending to be in a shopping car park some kilometres away.
- All teams must only do what the persons playing their team leader or the overall controller tells them to do. You must report casualties you find in your search or evacuation area to the person playing the controller, and then await directions as to what to do.
- You may be required to deal with casualties or assist people to evacuate. If someone requires first aid, write what you would do on the paper or card they are carrying. This is not an opportunity to practise real first aid.
- The simulation will start and finish when you hear the signal. When the finish signal sounds, you must all immediately assemble at [name of place].

Evaluating the simulation



The simulation can be evaluated in several ways:

- Teachers observe the students carrying out their roles during the exercise.

- Students work in pairs to describe their part in the exercise, and tell each other what they have learned.
- Students discuss in small groups what they and their families could do before, during and after this type of disaster.
- Students pretend they are the media and interview other students about their role in the disaster response operation.
- Students contribute articles to make a mock newspaper page or video news broadcast about the disaster.
- Students write letters of thanks to response agencies that helped with the simulation, outlining what they have learned about that group's role in a disaster.
- If it was not possible to involve any response agencies in the exercise, students could still write to them and describe how they role-played that group.





5.1 Templates

This section contains all the templates referred to throughout this guide. You can also download these templates from the **CD-Rom**  or www.whatstheplanstan.govt.nz .

Template 1: *What if* cards

The *What if* cards need to be perforated and placed in the plastic sleeves supplied.

This template allows you to make further copies of the cards if required.

Suggested discussion points for the *What if* cards are included on www.whatstheplanstan.govt.nz  and on the **CD-Rom** .

You could use the *What if* cards as follows:

- Discuss each one in a group.
- Make a flowchart.
- Mime or act out in a group.
- Circle whisper, and ask for the outcome at end.
- Read out and jot down three main points.
- Speech → impromptu.
- Mime and guess the scenario.
- Write your own *What if* situations.
- Make a game such as Snakes and Ladders.

Earthquakes

Scenario Card 1

At home with electricity still available

You and your family are asleep when you are woken up by the noise of furniture falling over and pictures dropping off the walls. It is an earthquake! What will you do?

Scenario Card 2

At home without electricity

You and your family are asleep when you are woken up by the noise of furniture falling over and pictures dropping off the walls. It is an earthquake! You try to turn on the bedside lamp but the power is off and it is completely dark.

Scenario Card 3

At school in the classroom

You are sitting at your desk during silent reading time when the classroom begins to shake violently. Windows rattle and the computer monitor crashes to the floor.

Scenario Card 4

At school outside the classroom

You are enjoying your lunch with your classmates at the picnic table in the shaded area about ten metres from your classroom. Suddenly the ground begins to shake and younger children begin to scream.

Volcanoes

Scenario Card 1

On holiday

You are camping in a volcanic area. You notice smoke rising from a volcano in the distance.

Scenario Card 2

At home

You are listening to the radio when you hear that your community has to get ready to be evacuated within the next two hours.

Scenario Card 3*At school*

You are told by your teacher that very shortly buses will arrive to collect everyone to be taken to a safer place due to sudden volcanic activity.

Scenario Card 4*On holiday*

You are on a ski holiday with your family. You are skiing with some friends when you hear sirens sounding across the slopes. You look up, and there is a plume of smoke rising from the top of the mountain.

Tsunami**Scenario Card 1***At home*

You are listening to the radio when the song is interrupted by a loud siren noise followed by a special message regarding a tsunami.

Scenario Card 2*On holiday at the beach*

You are on holiday and spending a day at the beach when you feel a strong earthquake. You notice the sea suddenly receding.

Scenario Card 3*At school*

Your teacher tells your class that you have to meet at the school assembly area because of a tsunami warning.

Scenario Card 4*On holiday overseas*

You are on holiday with your family at a beach resort in another country. You feel the ground shake and then see people running and screaming and pointing to the ocean. You cannot understand what they are saying.

Floods

Scenario Card 1

At home

It has been raining heavily all night and all day – a flood is threatening your area.

Scenario Card 2

At school

The school is closing early due to bad weather and a fast rising river close by. You know your parent or caregiver who usually picks you up is still at work. Who else could you contact to come and collect you?

Scenario Card 3

At school

One of the local rivers has flooded suddenly. The principal has decided that it is not safe to release you at normal closing time. Your parents cannot get to the school to collect you, so your teacher says you will need to stay at school till midnight when the water levels will fall. The flooding causes the lights to go off.

Scenario Card 4

On holiday

Your family and another two families have gone tramping for three days and nights. It has rained heavily overnight and now you discover the river you have to cross to get back to your cars is flooded.

Storms

Scenario Card 1

At school

You are in the classroom during bad weather. The wind is getting really strong, and suddenly a window shatters.

Scenario Card 2

Outside

You are on your way home from a friend's house after a major storm and notice a broken power line across the footpath in front of you.

Scenario Card 3*At school*

You are outside during the school lunch break when the wind suddenly gets stronger and objects start to blow about.

Scenario Card 4*At home*

You and your family are having dinner when you hear on the radio a cyclone, tornado or snowstorm warning for your area.

Non-natural disasters**Scenario Card 1***At the movies*

You are in a movie theatre enjoying a movie when suddenly everything goes black. People around you start to scream.

Scenario Card 2*At home*

You are playing in the backyard with your sister when you see a lot of smoke rising from the hills behind your house.

Scenario Card 3*At school*

The school bell rings at the end of the day but your teacher tells you that you cannot go home because it is too dangerous out on the roads. It could be because of heavy snow, a storm, damage to roads, or even a chemical spill near the school. How would you feel?

Scenario Card 4*At school*

You are all enjoying lunch outside on a warm summer day, when suddenly the school bell rings and keeps on ringing. Do you know what this is about? What are you supposed to do?

Template 2: Letter to parents – introduction to the unit

Dear Parent/Caregiver

Your child is working on a unit called What's the Plan Stan over the next few weeks. It is about understanding the disasters that can happen in New Zealand and how to be better prepared for them.

By the end of the unit, it is intended that all students will be able to:

[insert list of achievement objectives from your unit plan]

Your contribution and involvement over this time will help your child to learn as we progress through the unit. Please encourage them to talk to you about what they have learnt at school.

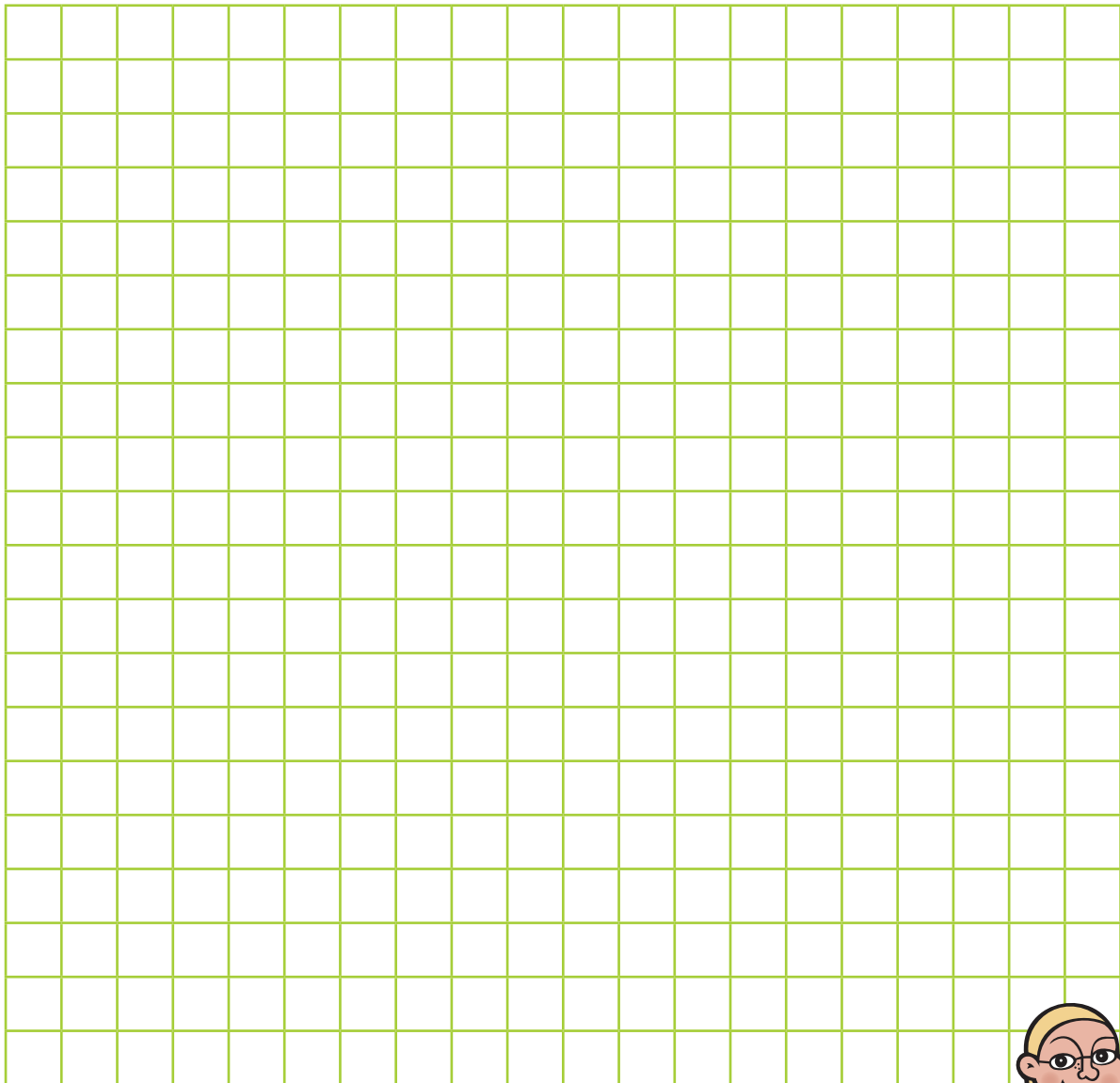
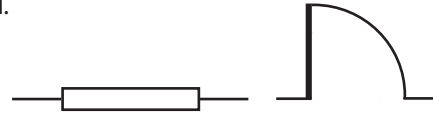
There will be some activities your child will need to complete at home that will require your involvement. For example, we'll be asking students to talk to their families about the ways in which they can prepare and practise for disasters at home.

We'll provide you with information about these activities as they occur so that you can help. In the meantime, we look forward to your support over the coming weeks as we learn about disasters and how we can all prepare for them.

Many thanks

Template 3: Home hazard map

1. Draw a floor plan of your home that shows all the exits like doors and windows.
2. Use symbols to help draw your plan (see examples for window and door).
3. Show safe places to take shelter during an earthquake.
4. Show where water, electricity, and/or gas mains are located.



"Remember not to turn the gas off during a practice, as you'll need the gas company to come out to reconnect it."



Template 4: Survival items 'cut and stick' sheet

Cut out the items:



Pet food



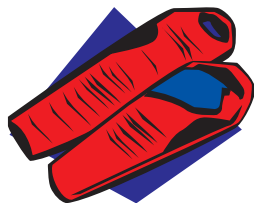
Food



Cooking equipment



Children's things



Sleeping bags



Water



Warm clothes



Rubbish bags



Spare batteries



Medicine



Can opener



Torches



Reading glasses



Sun hat



First aid kit



Radio

Glue the items you will need to survive here:

Template 5: Emergency survival items at home

Dear Parents/Caregivers

We've asked your child to use this emergency survival items checklist to see which items they can find at home.

Please discuss this checklist with your child and encourage them to tick the items that they can find in the house. You might be able to help them to locate any items they can't find themselves.

You can download this checklist from www.getthru.govt.nz

HOUSEHOLD EMERGENCY CHECKLIST

WHAT YOU WILL NEED TO GET THRU

YOUR HOUSEHOLD

ADDRESS: _____

NAMES AND PHONE NUMBERS (INCL MOBILES):

IMPORTANT PHONE NUMBERS

POLICE, FIRE, AMBULANCE: DIAL 111

CIVIL DEFENCE: _____

OTHER: _____

YOUR GETAWAY KIT

Everyone in your house should have a small bag for a Getaway Kit, ready for evacuation. In addition to essential emergency items, this kit should include:

FAMILY DOCUMENTS

- ☐ Birth and marriage certificates
- ☐ Drivers' licences and passports
- ☐ Insurance policies
- ☐ Family photos

PERSONAL ITEMS

- ☐ Towels, soap, toothbrush and sanitary items
- ☐ A change of clothes

EMERGENCY SURVIVAL ITEMS

If you prefer to keep your Emergency Survival Items in the house for everyday use, make sure you know where to find them when a disaster occurs.

FOOD AND WATER – ENOUGH FOR 3 DAYS OR MORE

- ☐ Bottled drinking water (at least three litres per person per day)
- ☐ Water for washing and cooking
- ☐ Non-perishable food (canned or dried)
- ☐ Can opener
- ☐ A primus or gas barbecue to cook on

OTHER EMERGENCY ITEMS

- ☐ Waterproof torches spare batteries
- ☐ AM/FM radio
- ☐ Spare batteries (check all batteries every three months)
- ☐ First aid kit and essential medicines
- ☐ Toilet paper and large rubbish bags for an emergency toilet
- ☐ Face and dust masks
- ☐ Pet supplies
- ☐ Blankets or sleeping bags
- ☐ Wind and rain proof clothing
- ☐ Strong shoes for outdoors
- ☐ Sun hats and sunscreen

SUPPLIES FOR BABIES AND SMALL CHILDREN

- ☐ Food, formula and drink
- ☐ Change of clothing and nappies
- ☐ Favourite toy or activity

OTHER SUPPLIES

- ☐ Hearing and sight aids, batteries
- ☐ Mobility aids
- ☐ Asthma and respiratory aids
- ☐ Special food needs

FOR MORE INFORMATION VISIT

www.getthru.govt.nz

PRODUCED BY THE MINISTRY OF CIVIL DEFENCE AND EMERGENCY MANAGEMENT



Template 6: Letter to parents – household emergency plan

Dear Parents/Caregivers

As part of the What's the Plan Stan unit we are doing at school, we are talking to students about how to get ready for disasters at home as well as at school.

Please encourage your child to tell you more about the emergency evacuation and response procedures we've been practising at school recently. We would like students to find out what emergency procedures they have at home. It's a great opportunity for your family to get prepared!

Here's an activity sheet you could use as a guide to emergency procedures, which you might like to display in a place that everyone in your family can see. We look forward to hearing more about your family's household emergency plan.

Many thanks

HOUSEHOLD EMERGENCY PLAN

COMPLETE THIS PLAN WITH ALL MEMBERS OF YOUR HOUSEHOLD

1. If we can't get home or contact each other we will meet or leave a message at: _____
2. The person responsible for collecting the children from school is:
Name: _____
Contact details: _____
Name (back-up): _____
Contact details: _____
3. The person responsible for checking the emergency survival items is: _____
4. The radio station (incl AM/FM frequency) we will tune in to for civil defence information: _____
5. In an emergency we will remain in our home unless advised otherwise. We will need to be prepared to look after ourselves for up to 3 days or more. In a disaster we will:
 - ☐ Stop, think and respond
 - ☐ Get our Emergency Survival Items
 - ☐ Listen to the radio for advice and information
6. If we have to evacuate our home we will:
 - ☐ Take our Getaway Kit, and the essential emergency items
 - ☐ Turn off water, electricity and gas (always seek professional advice before reconnecting the gas supply)
7. Neighbours that may need our help or can help us:

Name: _____

Address: _____

Phone: _____

Name: _____

Address: _____

Phone: _____
8. A plan of our house showing places to shelter e.g. in an earthquake, exits, assembly areas and where to turn off water, electricity and gas:

PLAN OF OUR HOUSE

**"Download this plan from
www.getthru.govt.nz"**



Template 7: Feelings pictures



Template 8: Self or peer assessment chart



Achieved well



Ok



Could have done better

Complete this assessment chart with your relevant assessment criteria. Students can use the visual symbols or continuum to reflect how well they think they have achieved the set criteria.

Success criteria	Smiley face

Template 9: What might happen?

The people in our group are:

The disaster we are finding out about is:

How can this disaster happen?

What dangerous things or damage might happen at school?

What dangerous things or damage might happen between school and home?

What dangerous thing or damage might happen at home?

What might happen to us or our families?

Template 10: Disaster similarities and differences

Disaster type and cause	Similarities	Differences
<p>For example:</p> <p><i>Tsunami – are caused by disturbances on the ocean floor.</i></p>	<p>For example:</p> <p><i>You need to stay calm, the same as in other disasters.</i></p> <p><i>You need to move to high ground (or safety inland), the same as in a flood.</i></p> <p><i>There may not be time to issue a warning if it happens, the same as an earthquake.</i></p>	<p>For example:</p> <p><i>The tide may go out very quickly, unlike other disasters.</i></p>

Template 11: Report checklist

Use this checklist to help your students write a report on a disaster.

Structure

The opening statement classifies the subject of the report.	
The opening statement is followed by sentences (usually factual) that describe things such as appearance, behaviour and other aspects of the disaster or those affected by it.	
The writing has paragraphs, each focusing on a different aspect of the disaster.	
A general statement about the topic usually rounds off the report.	
Diagrams, illustrations or photographs are often used.	

Language

Present tense verbs are used.	
Verbs for describing and classifying (is, are, has, have, belongs to) are used.	
Active verbs are used to describe behaviours (evacuate, drop).	
Personal reports focus on the individual (my survival items).	
Scientific or technical reports focus on classes of things (earthquakes).	
Descriptive language that is factual rather than imaginative (volcanoes have craters) is used.	
Nouns and noun phrases are used rather than personal pronouns.	

This checklist is adapted from the Ministry of Education, found on the TKI website at www.tki.org.nz.

Template 12: Historic disasters

Summarise the events of an historic disaster:

What can you learn from these historic disasters and experiences?

What would you do differently?

What would you do the same?

Template 13: Writing about hazards

Paste a picture of a hazard here:

What is the hazard?

Where is this hazard?

How can we become aware or deal with this hazard?

Template 14: Health rules after disasters

Listen to your radio for advice and information on ways to help yourself and others recover from the disaster. If it has been a major event a number of everyday services such as water, sewage and rubbish collection may no longer be functioning. To avoid a health hazard follow these simple instructions.

Water supply

Until you are told otherwise, regard all water as contaminated and do not use it until it has been boiled for several minutes.

Use bottled water. Turn off the power and water to your hot water cylinder and use water sparingly.

Bottles and cans of drink are a good source of drinking fluids and will leave more water for cooking and hygiene.

You may be able to collect rainwater from the roof if it rains. Don't collect the initial water coming off the roof as it may contain foreign matter.

Sewage disposal

If the radio announcements say the sewage system is not working don't use the toilet. It may end up in someone else's home!

Until the system is fixed, dig a deep hole in the garden for a temporary toilet. Find something for a flyproof cover to go over it and you will probably want to make a privacy screen around it. An alternative is a caravan toilet or covered bucket in the garden or shed. You will still need the hole with the flyproof cover to empty these into.

Have disinfectant and water handy for washing hands. Remember to use the water sparingly though.

Rubbish collection

It may be some time before regular rubbish collection resumes. Bury biodegradable rubbish in the garden, or store it in well sealed bags in a place where animals can't get at them. Rubbish collection sites might be arranged – listen to your radio.

Food

If the electricity has failed, food stored in refrigerators and freezers will eventually spoil. You can make the most of your food supplies by using them in the correct order:

- Fresh foods and food from the refrigerator should be used first but open the fridge as few times as possible.
- Food from a cabinet freezer. Cook food as soon as it starts defrosting as cooked food lasts longer than uncooked food.
- Food from a chest freezer – putting blankets over this type of freezer can help keep food colder for longer.
- Canned and packet foods should be kept until last.

Hygiene becomes very important when preparing food after an emergency. Remember to ensure that water used in preparing and cooking food has been boiled for several minutes to make it safe. Always wash your hands before preparing food – if water is in short supply keep some in a bowl with disinfectant.

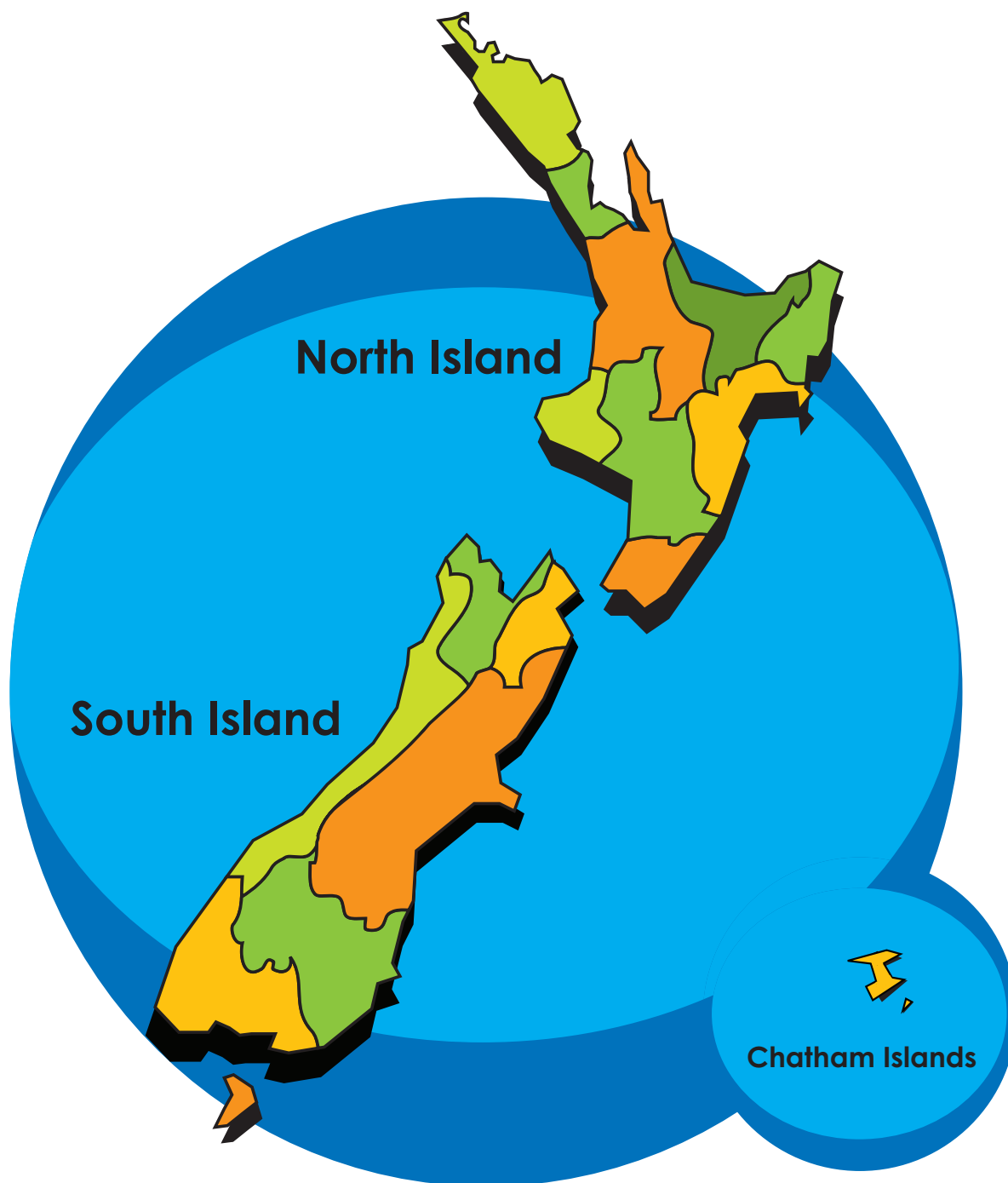
If using a barbeque or camping stove to cook food, use it outside to avoid harmful fumes in the house or accidental fire – the ambulance and fire services may be unable to respond if you have an accident.

As soon as possible after an emergency, check on the state of your garden chemicals, fuel and cleaning products in the house, garage and shed. Some of these can be dangerous to your health if spilled and mixed. If there has been a spill, use rubber gloves to handle containers and dispose of them into separate plastic bags. If fumes are present it may be best to seek help to deal with the situation.



"You can get more information about this from your local council. Links can be found at www.getthru.govt.nz"

Template 15: Map of New Zealand



Template 16: Plus, minus or interesting (PMI) chart

Students could use this chart to help compare their thinking from their first map to the information they found through research.

Plus	Minus	Interesting
<div>For example:</div> <div>I knew where the fault lines in New Zealand were located.</div>	<div>For example:</div> <div>I didn't know there had been any serious floods in New Zealand where people had to leave their homes.</div>	<div>For example:</div> <div>One of the fault lines goes through Wellington where I live.</div>

Template 17: Identifying the effects of a disaster

The people in our group are:

The disaster we are responding to is:

How can this disaster happen?

What dangerous things or damage might happen at school or home?

What could we do to help our families?

Who else could we help and in what way?

Template 18: Hazard hunt

List potential hazards at school, on the way home and at home.

Potential hazards at school	How could they affect you?	Action points

Potential hazards on the way home	How could they affect you?	Action points

Potential hazards at home	How could they affect you?	Action points

Template 19: Evaluation of evacuation exercise

Dear Parents/Caregivers

Our school recently held an exercise to test our procedures in the event of a disaster.

This exercise was also an opportunity for you to test your own household emergency plan, particularly with regard to collecting your children from school after a disaster. We would appreciate your feedback on the exercise.

Could you please answer the questions below and return this form to the school.

Many thanks

Parents/Caregivers feedback

Name _____

Tick your response

	1. Fully	2. Mostly	3. Slightly	4. Not at all
Our children's evacuation during the school exercise went smoothly. <i>[If it went slightly or not at all smoothly, please explain on the back of this page what went wrong, so that we can improve our school evacuation procedures.]</i>				
Our family has a procedure if our children have to be picked up in an emergency.				
If we have someone else who is allowed to pick up our children in an emergency:				
• the school knows who that person is				
• our children know who that person is				
• we have planned with that person what to do in an emergency.				
If the above arrangements change, our children know how to contact us in an emergency.				
We have a household emergency plan.				
We have talked about or practised the plan with our children.				
We have enough food and water at home to last for at least three days.				
We are aware of:				
• the type of hazards that could affect our home				
• how to reduce their impact.				
We are aware of:				
• the civil defence organisation and its structure in our area				
• where to go to get civil defence information				
• where the nearest civil defence welfare centre/ reporting centre is located.				

5.2 Other resources

There are many other resources that you can use to supplement emergency management education in your school.

Civil defence emergency management resources

A wide range of material is available from the emergency management office at your nearest local or regional council. Contact them directly or have a look on their websites for resources that may be helpful. Links to resources, as well as to your nearest council, are available on www.whatstheplanstan.govt.nz .

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Morris, B 1987, *New Zealand's Darkest Days*, Wilson and Horton, Auckland.

Rogers, A 1996, *New Zealand Tragedies: Earthquakes*, Grantham House, Wellington.

Novels

These novels are suitable for teacher reading, shared reading or novel study.

Beames, M 1999, *Storm*, Scholastic New Zealand, Auckland.

When a storm strikes and her dad goes missing, Erin has to take charge and find him.

Buck, P 1986 reprint, *The Big Wave*, Harper Collins, USA.

The story of a Japanese boy who must face life after escaping the tsunami which destroys his village.

Dunlop, B 1984, *Earthquake Town*, Dunlop, Hodder and Stoughton, Auckland.

An earthquake hits a coastal town. The children attempt to make their way home through the chaos.

Hall, M 1989, *After the Earthquake*, Ashton Scholastic, Auckland.

An earthquake strikes the West Coast of New Zealand.

Hill, D 2003, *My Story – Journey to Tangiwai. The Diary of Peter Cotterill*, Scholastic, Auckland.

When Peter Cotterill begins his diary in 1953, little does he realise that something is happening elsewhere in New Zealand that is going to have a huge impact on his life.

Hill, D 2003, *No Safe Harbour*, Mallinson Rendel, Wellington.

Two children travel on the ferry *Wahine* during Cyclone Giselle in 1968.

Hill, D 2001, *The Sleeper Wakes*, Puffin, Auckland.
Mount Taranaki erupts after 250 years.

Hunter, E 1999, *The Quake*, Scholastic, Auckland.
Hannah has to care for her siblings after an earthquake.

Morpugo, M 1999, *Kensuke's Kingdom*, Heinemann, UK.

A storm leads to a boy being washed up on an island in the Pacific where he has to survive on his own.

Paulsen, G 1992, *The Voyage of the Frog*, Pan Macmillan Children's Books, UK.

A boy is caught on his boat in a fierce storm and must survive many days on his own.

Thorburn, J 2002, *Stranded*, Mallinson Rendel, Wellington.

A dinghy is driven by a storm on to a deserted shoreline – a story of resourcefulness and endurance.

Picture books

Leeson, C 2003, *Molly and the Storm*, Tiger Tales, Wilton, USA.

Molly and the mice are caught in a storm. The other animals offer shelter, but their nests are too high, too small or too crowded.

Riley, K 2004, *Cow Power*, Random House, New Zealand.

A true story about Cow Number 569, who rescued her farmer during the devastating floods in the Manawatu in early 2004.

Rowe, R 2000, *Isabel's Upside-Down Day*, Reed Children's Books, Auckland.

Isabel is at a new school when the Napier earthquake strikes. Isabel and her family have to make major adjustments to survive.

Junior school readers

<i>The Storm</i>	Sunshine Level 1	Red 1
<i>The Storm</i>	The Story Box	Red 1
<i>Did You Say Fire?</i>	Ready to Read	Yellow 2
<i>Fire Fire</i>	New PM Story Book	Yellow 3/ Blue 1
<i>The Doctor</i>	PM Library Non-Fiction	Blue 3/ Green 1
<i>The Teacher</i>	PM Library Non-Fiction	Blue 3/ Green 1
<i>Our Parents</i>	PM Library Non-Fiction	Blue 3/ Green 1
<i>The Wild Wet Wellington Wind</i>	Ready to Read	Green 1
<i>The Flood</i>	New PM Story Books	Green 3
<i>After the Flood</i>	New PM Story Books	Green 3
<i>Is that an Earthquake?</i>	Ready to Read	Orange
<i>When the Volcano Erupted</i>	PM Library	Big Blue 1
<i>The Dog who Chased Lightning</i>	Journal 3	Purple
<i>Fire Fire</i>	Journal 10	Purple 2
<i>Rumbling in the Chimney Poems</i>	Literacy Links Plus	Multi Levelled
<i>Forces of Nature</i>	First Explorer	Silver

National Library of New Zealand

The National Library of New Zealand's Curriculum Information Service makes free loans of curriculum-related resources to New Zealand primary and secondary school teachers, and to home schoolers, to support student learning. They provide skilled reference assistance when selecting resources, and database searches that suit your needs.

www.natlib.govt.nz/en/services/3request.html

Other useful National Library of New Zealand online resources include:

- Catalogue
nlzcat.natlib.govt.nz
- Images
timeframes.natlib.govt.nz
- Newspapers
paperspast.natlib.govt.nz
- Art and music
discover.natlib.govt.nz
- Te Puna web directory
webdirectory.natlib.govt.nz

School Journals

<i>Title</i>	<i>Author</i>	<i>Description</i>	<i>Issue</i>	<i>Guided reading level</i>
<i>Earthquake</i>	Barbara Hill	Article: This report describes the trauma of the 2003 earthquake in southern Iran, and includes interviews with survivors.	2004 Pt 2, No. 4	
<i>Flood</i>	Sonny Mulheron	Story: Ama and her mother have to evacuate their Paekakariki home during a flood.	2004 Pt 2, No. 2	8.5 – 9.5
<i>Waiohine Flood</i>	Alice Robertson	Poem: A taniwha leaps in the roaring, muddy water.	2003 Pt 2, No. 1	
<i>Escape from the Wahine</i>	Kathy White	Article: Eleven-year-old Ryan Poole recorded an oral history interview with his grandfather about his painful memories of being one of the survivors of the 1968 <i>Wahine</i> disaster.	2002 Pt 4, No. 3	9.5 – 10.5
<i>Tragedy at Tangiwai</i>	Aaron Hanning	Article: Twelve year-old Aaron's report of the 1953 Tangiwai train disaster.	2000 Pt 4, No. 3	
<i>The Big One</i>	Keith Tonkin	Story: A Christchurch school is evacuated after a huge earthquake in Chile causes a tsunami.	1999 Pt 3, No. 2	9.5 – 10.5

(details from School Journal Search)

Building Science Concepts series

No	Title	Level
1	<i>Waterways: How rivers and streams work</i>	L2/3
2	<i>Weathering and erosion</i>	L3/4
12	<i>Volcanoes</i>	L3/4
40	<i>Earthquakes</i>	L3/4
50	<i>Storms</i>	L3/4

Websites

What's the Plan Stan?

www.whatstheplanstan.govt.nz 

Get Ready, Get Thru

www.getthru.govt.nz

Visit the following sections of the *What's the Plan Stan* website for links to related websites and further information:

Earthquakes

www.whatstheplanstan.govt.nz/mcdem/earthquake.html

Volcanoes

www.whatstheplanstan.govt.nz/mcdem/volcano.html

Tsunami

www.whatstheplanstan.govt.nz/mcdem/tsunami.html

Storms


www.whatstheplanstan.govt.nz/mcdem/storm.html

Floods

www.whatstheplanstan.govt.nz/mcdem/flood.html

Non-natural disasters

www.whatstheplanstan.govt.nz/mcdem/non-natural.html

Emergency Management Offices can be contacted through your local council. You can find direct links to council websites by going to www.getthru.govt.nz or www.whatstheplanstan.govt.nz  and using the 'who to contact' section.

5.3 Glossary

Aftershock	Shake or tremor that can occur after an earthquake and can cause damage.
Ash fall	Fine dust from volcanic activity that can be a hazard even thousands of kilometres away from the volcano.
Casualty/casualties	People killed, injured, sick or homeless after a disaster.
CDEM	Civil Defence Emergency Management.
Civil defence/civil defence emergency management	The measures undertaken at local, regional or national level to protect individuals and communities from a disaster or a potential disaster. It includes the planning, organisation, coordination and implementation of those measures, knowledge and practices.
Cyclone	Very strong rotating winds with sustained wind speed of over 120kph (see hurricane and typhoon).
Disaster	An event that is an extreme occurrence of a natural process or a large scale man-made incident which has the potential to cause significant loss or damage.
Earthquake	Violent movement of part of the earth's crust caused by accumulated stress along a fault line or volcanic action.
Emergency management	A range of measures to handle risks before, during and after an emergency or disaster.
Emergency services	Includes police, fire service, rural fire authorities, ambulance, and hospital and health services.
Evacuate	To remove people from a place of danger to stay elsewhere for the duration of the danger.
Fault line	Break in layers of rock, where the earth shifts and moves.
Flood	Overflow or influx of water beyond its normal confines.
Hazard	A source of risk or danger that has the potential to affect individuals and communities.
Hurricane	Word for cyclone in the Atlantic and east Pacific.
Lava	Flowing, hardened or molten magma from a volcano.
Lifeline utility	Businesses that provide essential services to the community such as energy, telecommunications, water and transport.
Magma	Molten rock before it erupts from a volcano.
Magnitude	Size and strength of an earthquake.
MCDEM	Ministry of Civil Defence & Emergency Management.
Modified Mercalli (MM) Scale	In New Zealand earthquake intensity is measured using this scale which is a descriptive scale from 1 to 12 based on how people feel an earthquake, and the damage to contents and buildings.
Risk	The combination of the likelihood and the consequences of a hazard. A hazard may pose many risks such as death, injury, property damage, and social, economic and environmental consequences.
Richter Scale	Measure of energy released by an earthquake based on the magnitude scale devised by Charles Richter in 1935.
Storm	A violent disturbance of the atmosphere with strong wind usually accompanied by thunder, rain or snow.
Tsunami	A series of fast moving waves caused by a disturbance in the sea or on the sea floor usually caused by an earthquake or subterranean landslide.
Typhoon	The word used for a cyclone in the north-west Pacific.
Volcano	A hill or mountain with a vent through which lava, gas and debris is expelled.