



COPE

.....  
Be ready for disasters!  
.....

# TSUNAMIS

By Martha Keswick +

Mariko Jesse + Timothy Sim



## What are natural hazards ... and disasters?

Forces of nature that happen with little warning and occur all over the world, such as earthquakes, tsunamis, floods, landslides, tropical cyclones (and other storms), storm surges, heatwaves, wildfires, droughts, volcanic eruptions, blizzards and avalanches. When these **natural hazards** pose a threat to humans or the environment they can lead to **disasters**, and cause destruction in a community.

## What are tsunamis?

A tsunami, which means 'harbour wave' in Japanese, is an enormous ocean wave or series of waves typically caused by underwater earthquakes, or sometimes by underwater landslides or volcanic eruptions. These waves can travel up to an incredible 970kmh, as fast as an airplane, and have wavelengths that can extend over 1,000km. Tsunamis can reach 40 metres high when they crash onto land, causing severe flooding, widespread damage and loss of life.

*COPE will teach you how to  
be ready for tsunamis!*







Be ready for disasters – Tsunamis

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Mariko Jesse & Timothy Sim

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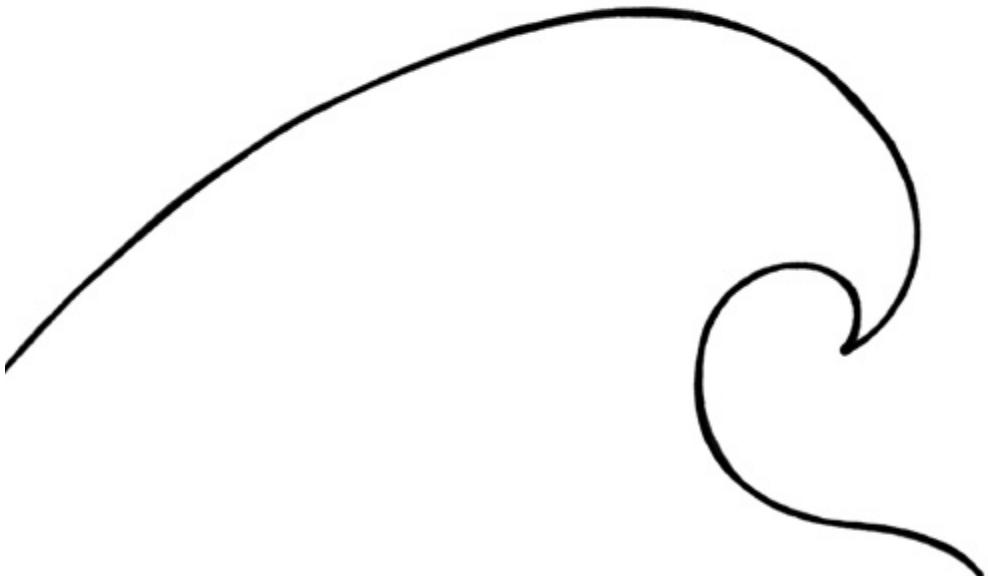
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Who is  
Grand Mistress Fu?

A famous Chinese martial arts teacher and founder of the Mount Emei Wushu School. Grand Mistress Fu, also known as Shifu, is disciplined and tough yet has an enormous heart. She narrowly escaped death as her school collapsed during the Wenchuan Earthquake in May 2008 and has since dedicated her life to Disaster Risk Reduction.



What is  
The COPE Academy?

An international disaster hub, hidden in Sichuan Province, set up by Grand Mistress Fu. The COPE Squad – Candy, Ollie, Ping and Eddy are teenage orphans who were plucked out of their care homes to live at The COPE Academy and trained to be disaster risk reduction agents.

Sense

THE SNAKE

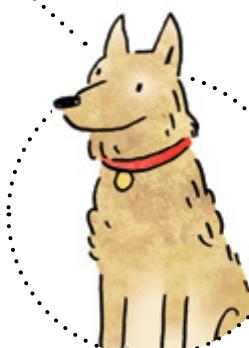


A beautiful 25-year-old python. Sense has a special gift for predicting disasters. Grand Mistress Fu feeds her mice every month.

Rescue

THE DOG

A huge 8-year-old Kunming Wolf Dog, Rescue tracks missing people. His favourite hobby is catching flies.



# The C O P E Squad



Candy

**THE CARER**

12 years old from Kranshoek, South Africa. Candy is kind, strong, lively and loves playing drums and hula-hooping. Her role is to care for vulnerable groups affected by disasters such as children, elderly or disabled.

*Disaster Experience: Wildfires*



Ollie

**THE SCIENTIST**

13 years old from Christchurch, New Zealand. Ollie is clever, popular, sporty and loves astronomy and rugby. His role is to understand weather patterns, climates and ecology.

*Disaster Experience: Earthquakes*



Ping

**THE NETWORKER**

12 years old from Hong Kong, China. Ping is practical, chatty, creative and loves cooking and Wushu. Ping is the networker and spokesperson within the COPE squad.

*Disaster Experience: Floods*



Eddy

**THE ENGINEER**

12 years old from Bahia, Brazil. Eddy is curious, witty, chilled out and loves Lego and skateboarding. Eddy is a talented engineer focusing on the safety of buildings.

*Disaster Experience: Landslides*

**COPE Signs**

Since Eddy has a hearing disability, COPE sometimes chat using the Brazilian sign language, LSB. Can you spot the signs for **ready**, **tsunami** and **disaster**?

Winter sunsets on Mount Emei are magical.

The COPE squad admired the bright red sky and fluffy sea of clouds.



The clouds look like waves!

Amazing!



Grand Mistress Fu and Sense  
finished their early evening  
Tai Chi, heading back inside  
The COPE Academy before  
it got too cold.

Next morning, it was straight to work. Grand Mistress Fu was preparing COPE for their tsunami mission to Japan.

Now COPE, we must remember the key message –

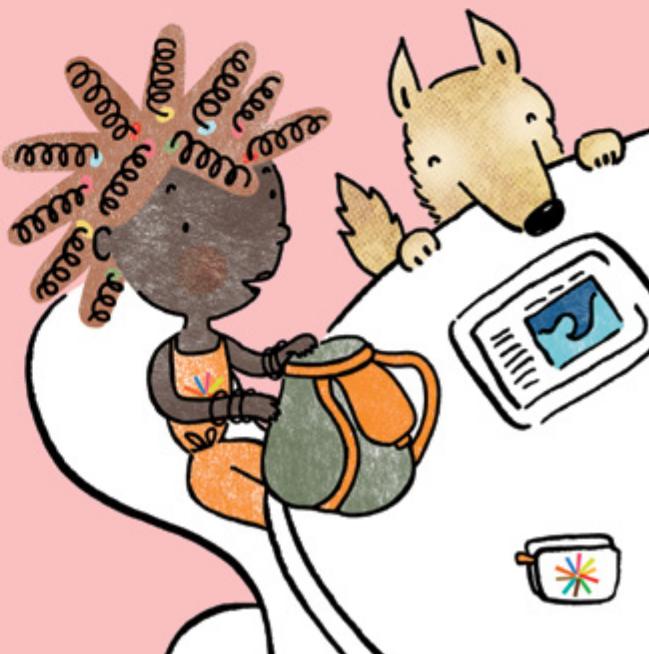
**GET UP TO HIGH GROUND.**

How can we be ready?



Pack a **survival bag**.

Make a contact plan for your family.

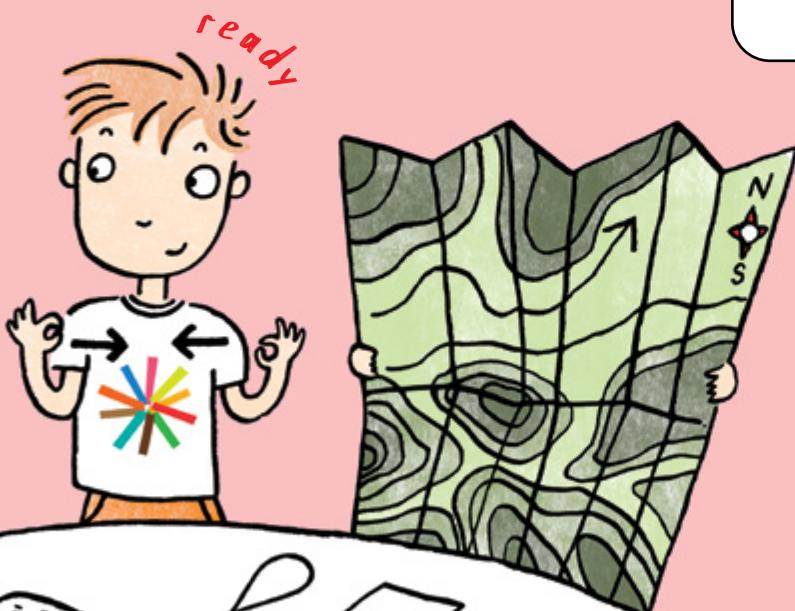


Plan your  
*evacuation route.*

Do practice drills.

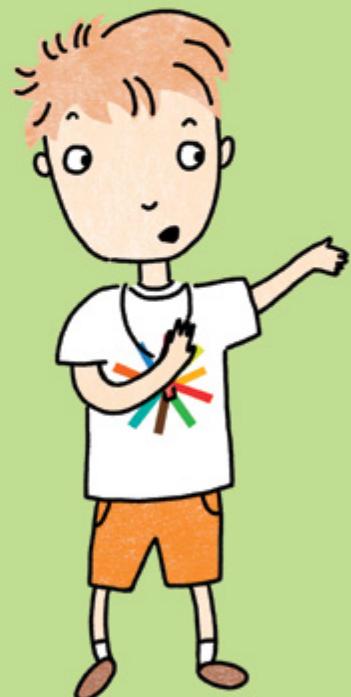
Stay alert. Tune in for  
**tsunami  
warnings.**

Find the nearest  
**emergency shelter**  
to your home and school.



How do we know if

## A TSUNAMI IS COMING?



A strong **earthquake**, when the ground shakes for 10 seconds or more.

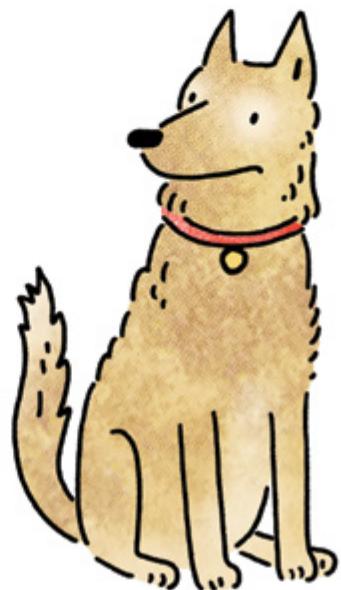
The sea moves rapidly away from the shore, as if the tide is going out, but much faster. As the **sea pulls back**, the ocean floor (sand, fish, corals), may be exposed.



A loud ***ocean roar***,  
like the noise of a train.



***Strange activity***  
in the sea, such as frothy  
or bubbly water.



What should we do

**IN A TSUNAMI?**

In case of an earthquake, remember to

**DROP, COVER & HOLD!**



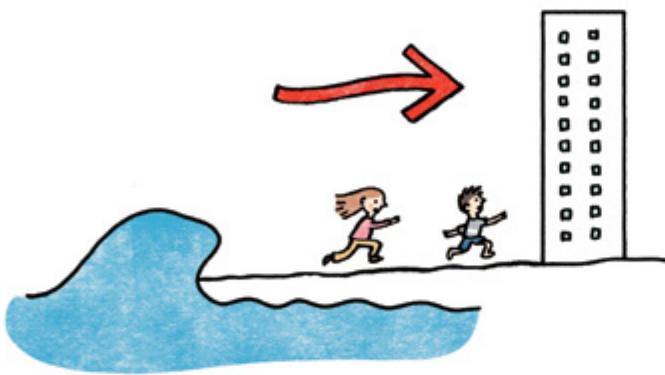
When the shaking stops,

immediately

**GET UP TO  
HIGH GROUND...  
or a tall building.**

as high as a 10-storey  
block of flats.





Stay on high ground or inland;  
the first wave may not be the largest.  
They may continue for hours.

Do not return home  
until it is **safe**.

### On flat landscapes **GO INLAND**

quickly, far away from the shore;  
tsunami waves can be extremely  
powerful and long, even up to 10km.

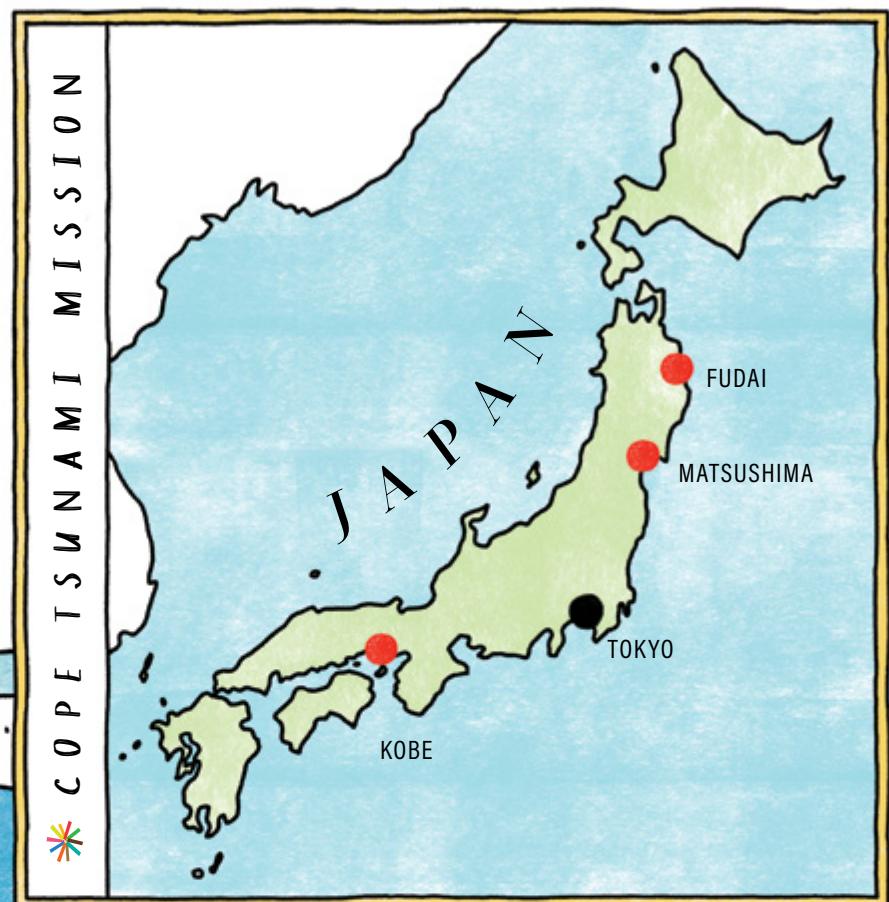


COPE's mission would take them all over Japan.

Their first stop was Kobe in Hyogo, an area famous for

**Disaster Risk Reduction.**





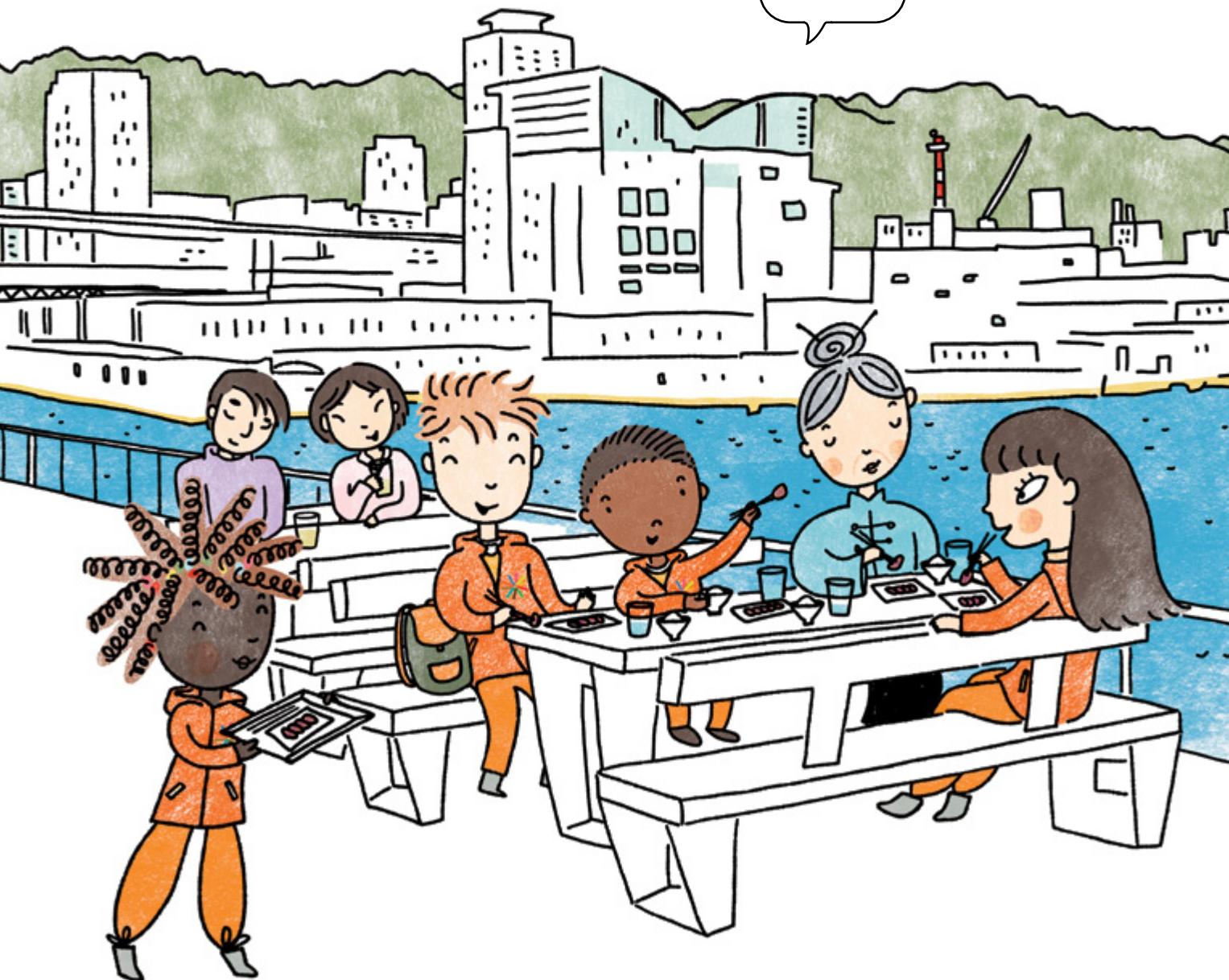
COPE headed straight down to the busy port.

Grand Mistress Fu treated the squad to some Kobe beef.



Wow! It melts in your mouth!

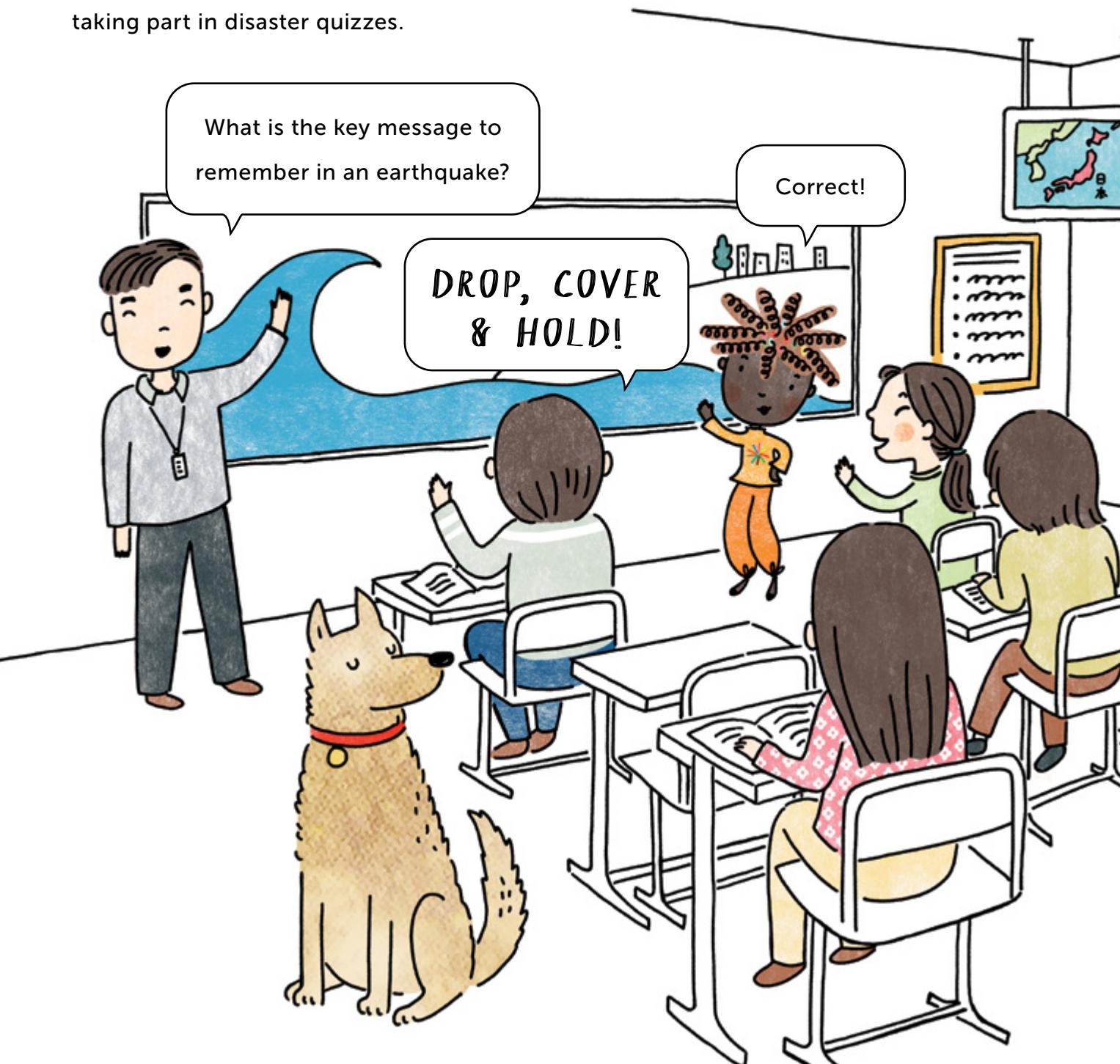
Yum!





Japan is a disaster-prone country, so children have been **well prepared**. COPE learnt from their good example.

They visited primary schools and day care centres, taking part in disaster quizzes.



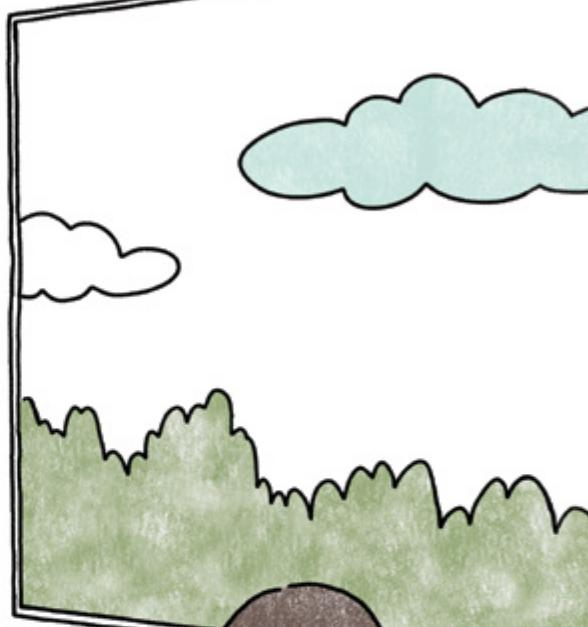
Let's spread the word!



1

*disaster*

2



COPE recruited **COPE Champions** in the thousands, to act as role models in their communities, and leaders in their families.

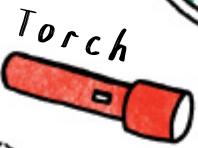
Our son, Jiro, helped build an evacuation plan.

The roof is the safest place.  
Up there.



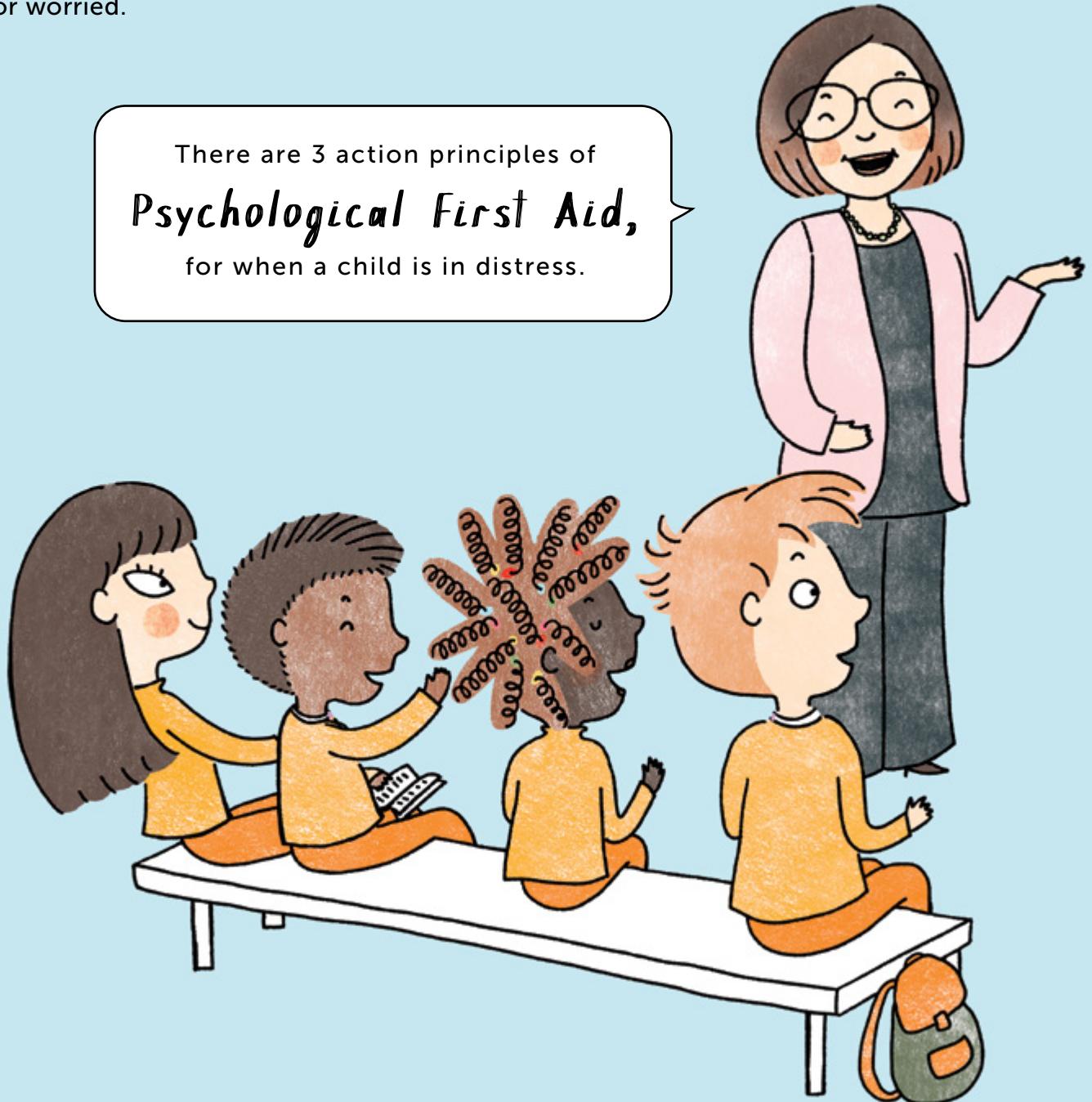
Let's pack our tsunami survival bag!

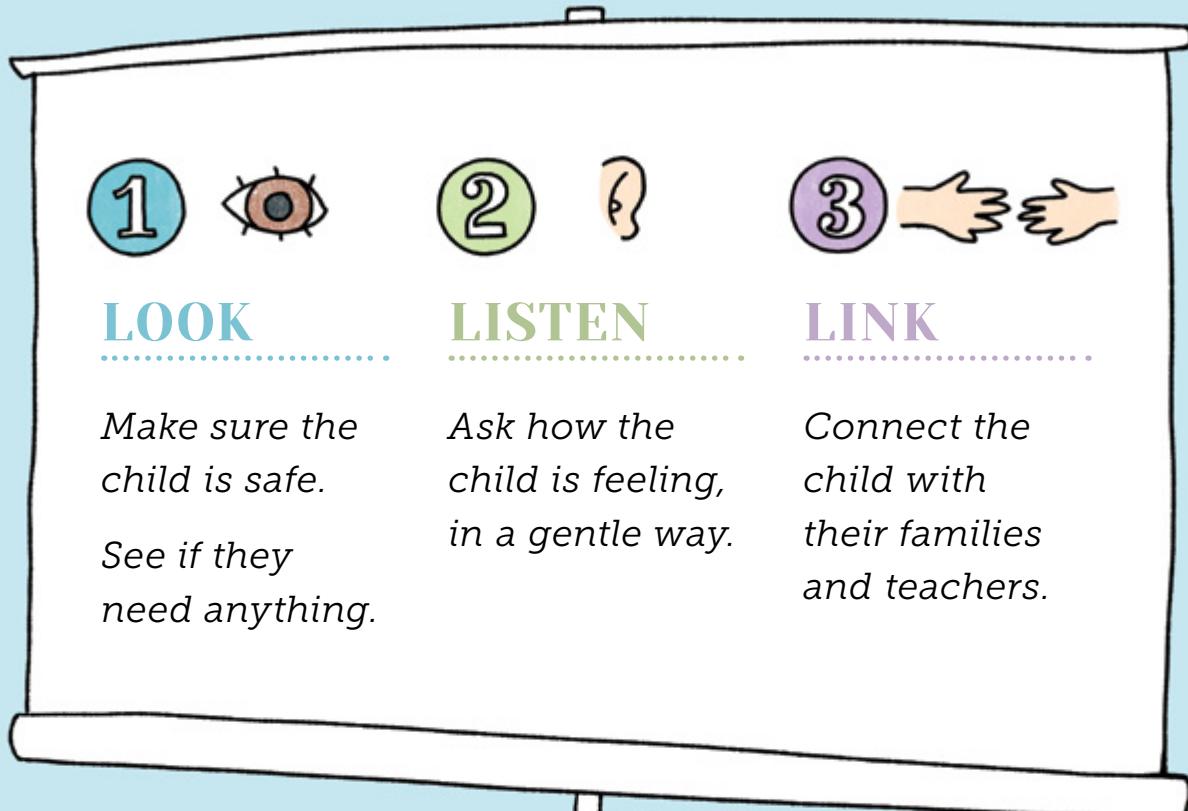
Be ready to grab and run!



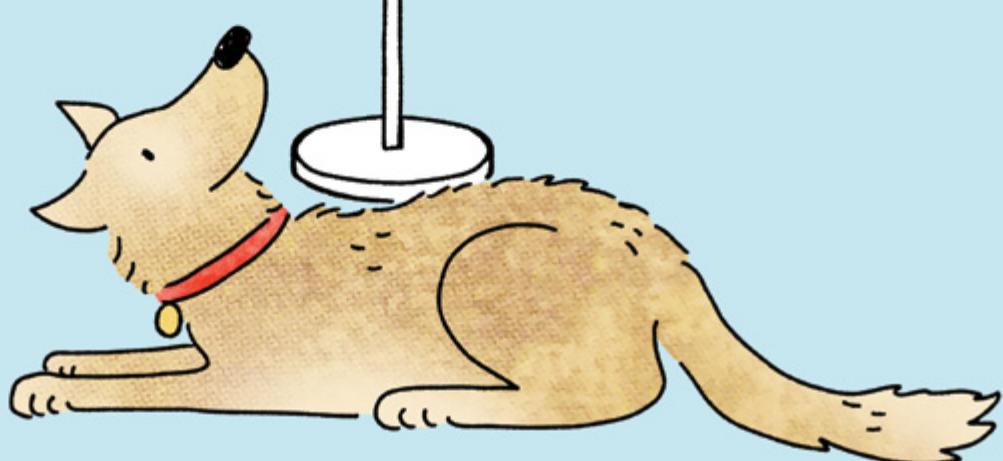
On a special training course, COPE found out that disasters affect people in many different ways. Some may feel scared, confused, or worried.

There are 3 action principles of  
***Psychological First Aid,***  
for when a child is in distress.





We'll be **mindful**.

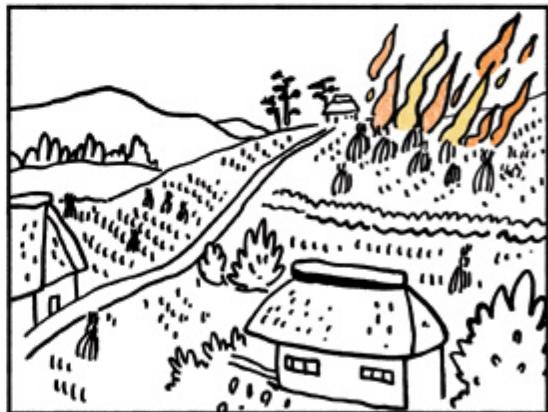


Along the way, COPE visited a tsunami museum.

5th November is  
World Tsunami Awareness Day,  
in honour of the story of  
**'Inamura no Hi'**,  
the Burning of the Rice Sheaves.



One night in 1854, there was a huge earthquake. Gohei, the village chief, worried about a tsunami.

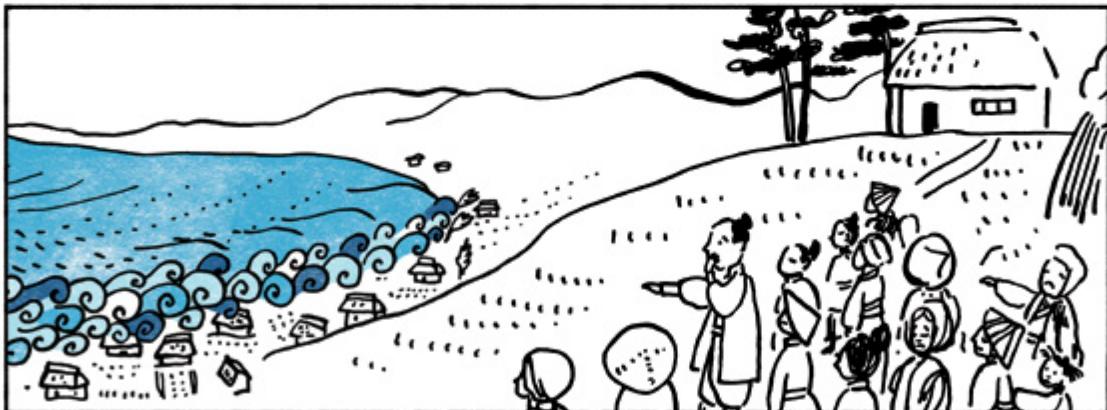


To warn villagers of the danger and make them evacuate,  
he set fire to his rice sheaves up on the hill.





As the sun set, the fire of the sheaves burned bright. The villagers ran up the hill to put out the fire.



They watched as the terrible white wave destroyed their homes below.  
Gohei's actions had saved them.

Later, Gohei built a very tall wall to protect the village from future hazards.

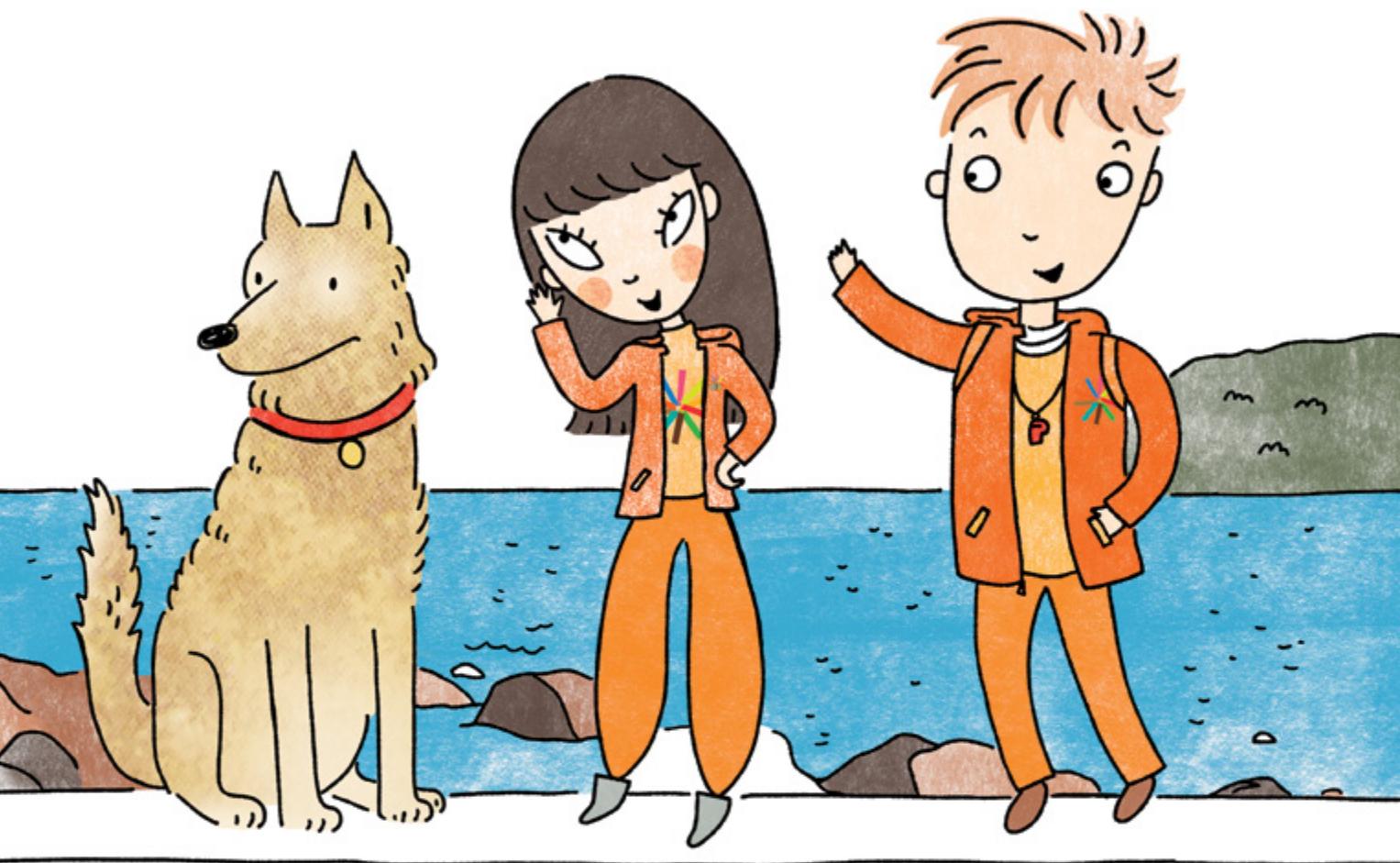


Japan boasts one of the most advanced *Early Warning Systems* in the world. After an earthquake, a tsunami warning would be broadcast within 3 minutes, via the TV, radio and mobile phones.

Stay alert for these warnings.

**GET UP TO HIGH GROUND!**





Catchy tune!

Coastal towns are well set up with tsunami warning signs. Every afternoon at 5pm, a *special chime* sounds across the whole country. The music signals a daily safety check to warn residents of emergencies.

COPE joined a **self-help group** for children with disabilities.

The land is flat where we live.  
We practise **going inland**,  
as fast as we can, using wheelchair  
accessible routes.





I have a hearing impairment. Since I cannot hear sirens or alarms, my wrist strap vibrates if there is an emergency.

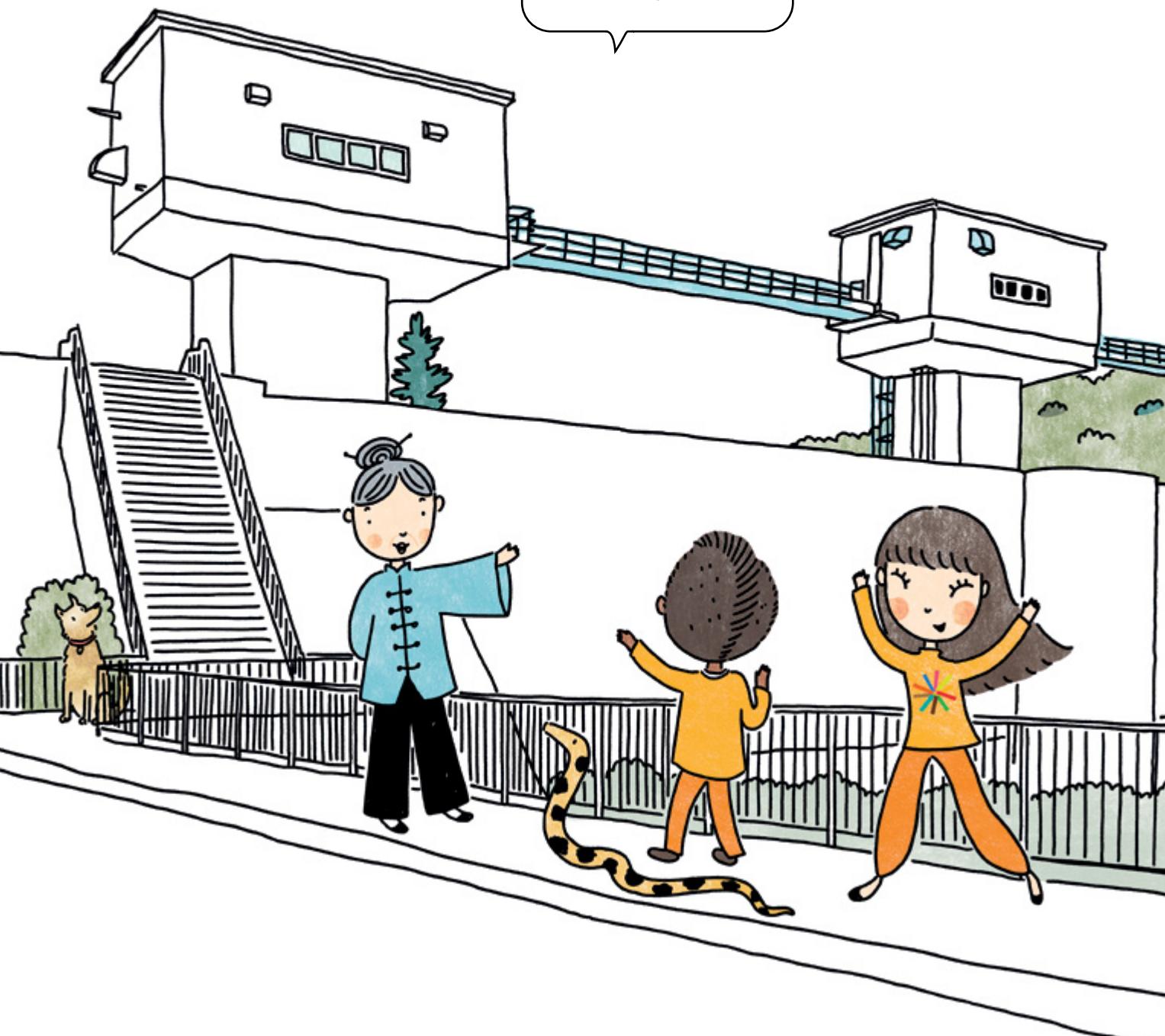
We go on **high ground hikes**, up the hill to the emergency centre.

We make sure **no one is left behind!**

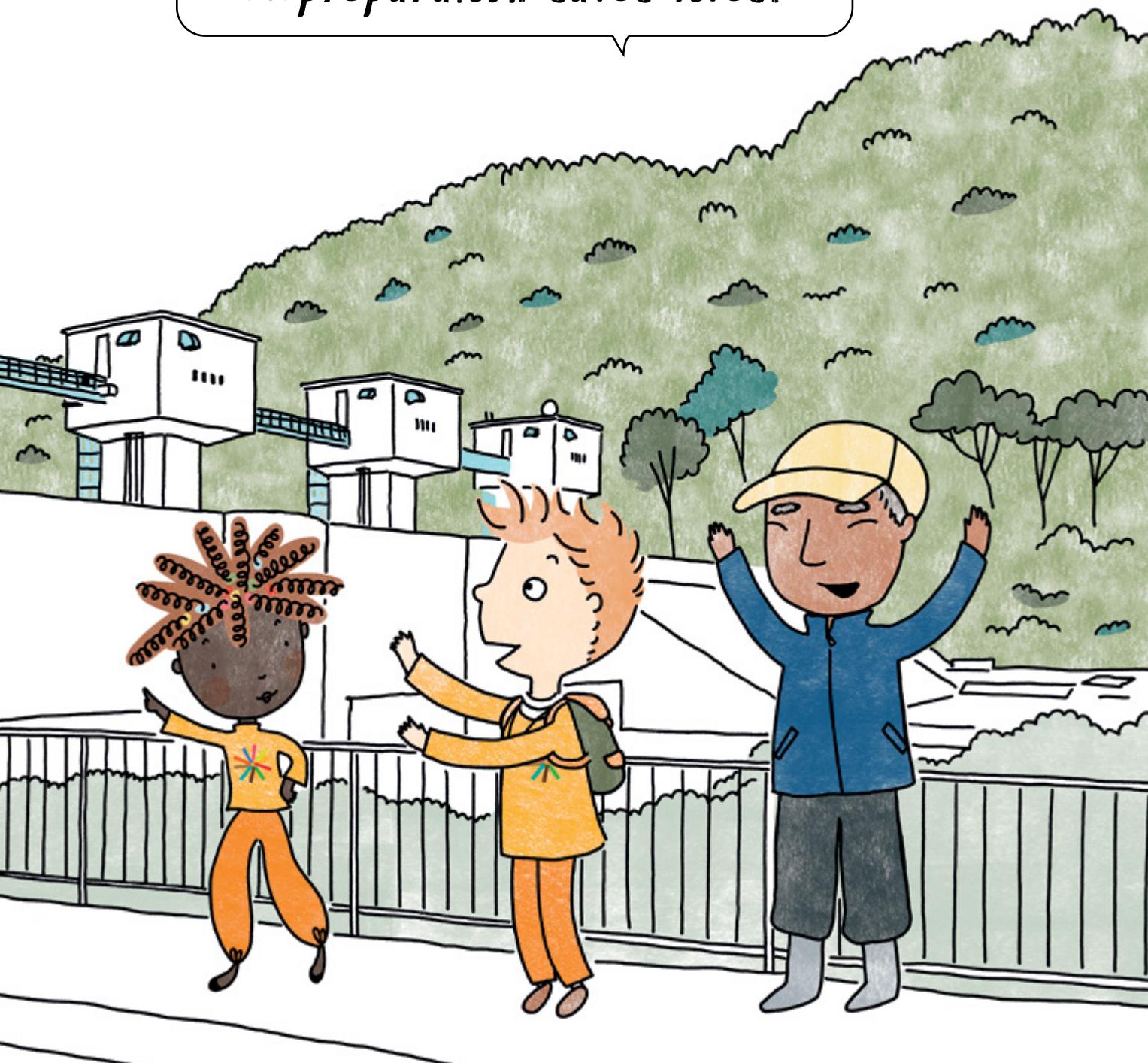
Mine too. Technology is awesome!

In Fudai, the mayor had built a very high sea wall with floodgates to protect the town from tsunamis.

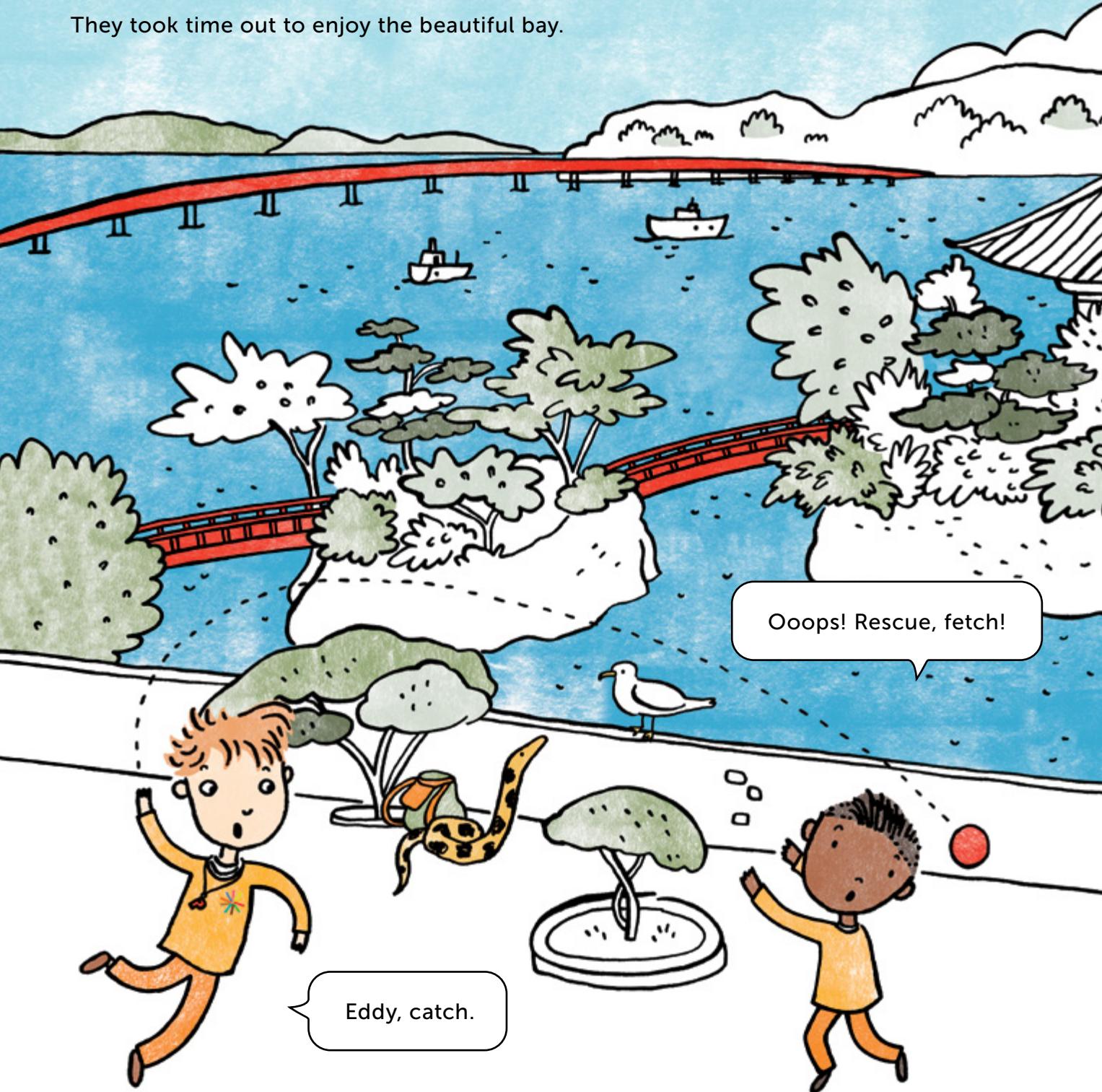
How impressive.



The wall took many years to complete. Everyone said it was too expensive, but our mayor strongly believed that ***preparation saves lives.***



COPE visited the famous town of **Matsushima**,  
They took time out to enjoy the beautiful bay.





COPE headed to the beach. Suddenly, they heard the familiar chime.

Sense started to act strange, digging a hole in the sand.



The ground is starting  
to **shake!**



Listen!  
**A roar.**



Look, the **tide is**  
**going far out.**

Tsunami! We must get to  
**higher ground, NOW.**



COPE quickly put their disaster training skills into action.





GET UP TO HIGH GROUND...  
or a tall building.

Keep going. Every step counts.



They helped small children, people with disabilities,  
and the elderly, directing them up the hill.

## On March 11<sup>th</sup> 2011, *The Great East Japan Earthquake*

was one of the biggest earthquakes ever recorded, at a magnitude of 9.0.

A giant tsunami followed, which brought devastation to much of the Pacific Coast.





Many people tragically lost their lives or their loved ones.

Houses were destroyed. Cars floated in the water. Roads were lined with piles of wreckage. Thick layers of mud covered the ground.

Luckily the bay of Matsushima had been protected from the tsunami. The wave had only reached 3.8 metres which was a lot smaller than the horrific 40 metre waves which swept through other coastal towns.



Survivors gathered on the eighth floor of a hotel. They checked each other for injuries, played games, and **waited calmly**.



COPE handed out blankets, clothing, first aid kits, water and snacks.

A little girl was crying, still in shock. Candy crouched down and **spoke quietly**.



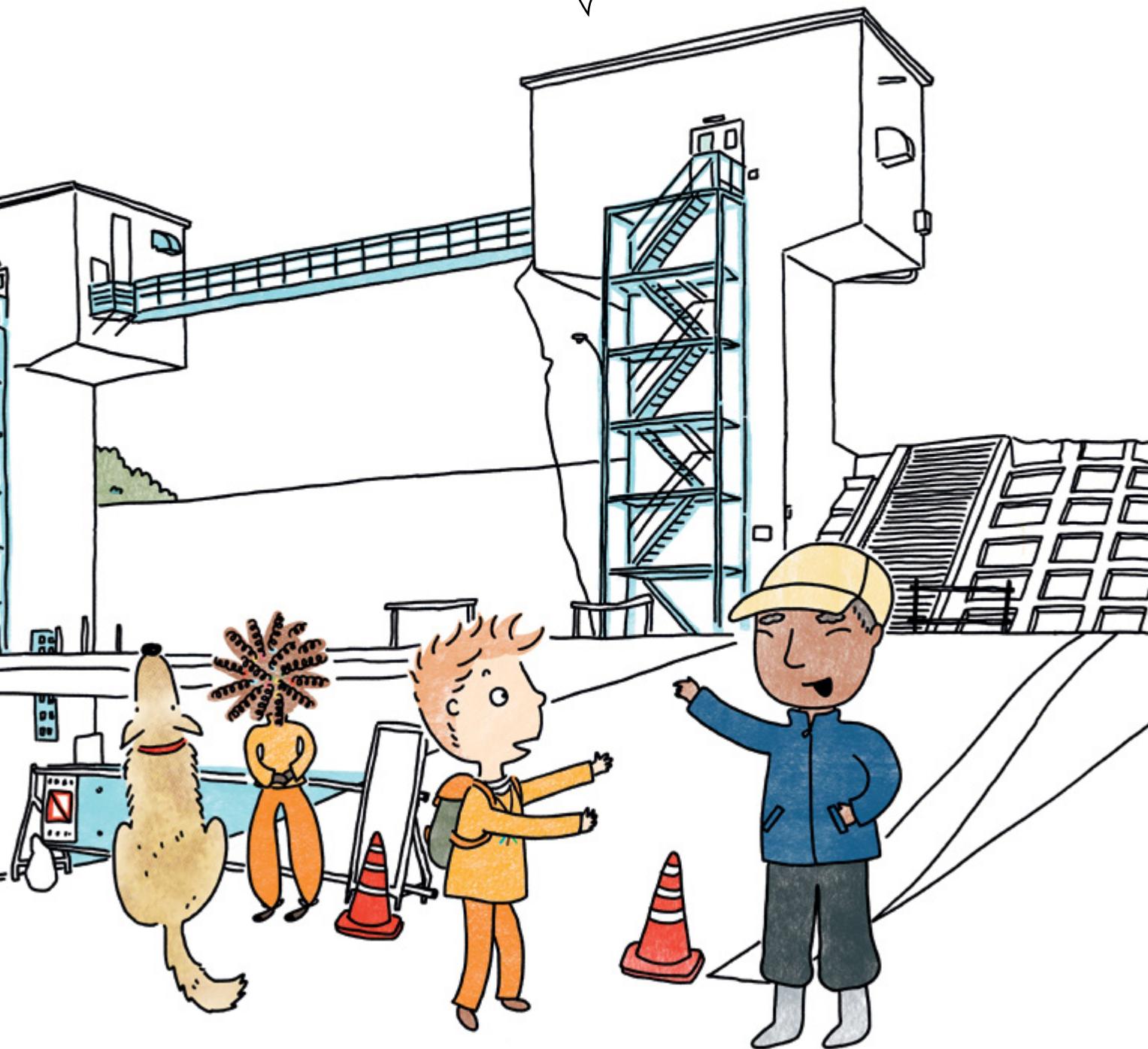
Hi, my name's Candy. Try to breathe deeply. Copy me: 1—inhale, 2—exhale, 3—inhale, 4—exhale. Now, let's find your parents.

Weeks later, the Fudai mayor was hailed a hero after his seawall allowed the small town to escape the tsunami. No homes were swept away.

In fact, the town was almost untouched.



The mayor was our saviour. His wall did cost a lot of money,  
but without it, Fudai would have disappeared.



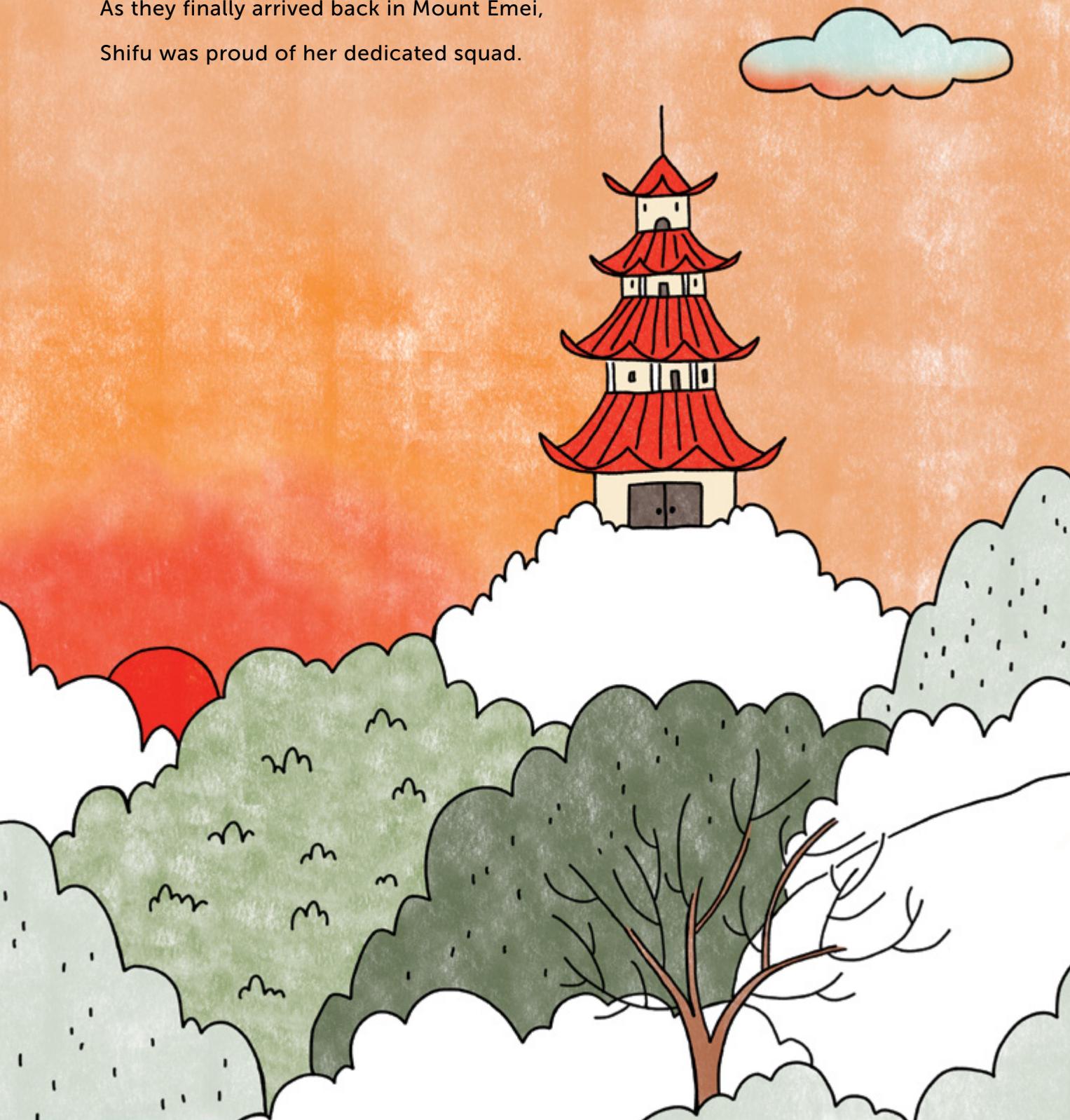
It would take some years for Japan to recover. COPE Champions helped with the **post disaster reconstruction**, clearing away mud and other debris.



Schools reopened, with students going back full of hope, and support for one another. Their first day would be spent packing survival bags, and practicing evacuation routes *inland and up to high ground.*



As they finally arrived back in Mount Emei,  
Shifu was proud of her dedicated squad.



They landed just in time to enjoy another beautiful winter sunset.

COPE, we are home.



## THE COPE CONTRIBUTORS



**Martha  
Keswick**

**COPE**

**AUTHOR**

Martha Keswick is the author of the popular bilingual *Max and Mei* picture book series, the factual *Zhongguo Mingren* series, and the action packed *Pangu* comic book series, all designed for children learning Chinese as a foreign language. Martha's work for the Keswick Foundation often supports disaster related projects in China.

Martha lives in Hong Kong, China with her husband, their four children and two dogs.



**Mariko  
Jesse**

**COPE**

**ILLUSTRATOR**

Mariko Jesse studied at Central St Martins, where she went on to be an Associate Lecturer. She is an award-winning illustrator, working on a variety of projects around the world from picture books to ceramics.

Mariko lives in San Francisco, USA where she is always in a state of preparedness for earthquakes.



**Timothy  
Sim**

**COPE**

**EDITOR**

Dr Timothy Sim started out as a social worker, specializing in family therapy. Tim focused on Disaster Risk Reduction after working with children, their families, schools and communities affected by the horrific Wenchuan earthquake in 2008. He has written many books in Chinese and English.

Tim is currently a professor at the Singapore University of Social Sciences.



**COPE Tsunamis empowers children with the knowledge they need to stay safe and become leaders in building disaster-ready communities.**

— **MARCO TOSCANO-RIVALTA**

Chief, UNDRR Regional Office for Asia and the Pacific

**The COPE book on tsunamis gives clear messages to children about the nature of tsunami hazards, and how to prepare themselves, their families, and their communities to respond to them.**

— **PHILIP ENGLAND**

Emeritus Professor of Geology, University of Oxford

**The 2004 Indian Ocean tsunami was the largest disaster in our lifetime, both in terms of lives lost and widespread impact. COPE Tsunamis aims to educate both children and adults alike about the key steps they need to protect themselves.**

— **JEKULIN LIPI**

Global Focal Point, Sendai Children and Youth

**The COPE Tsunami book is an invaluable resource that helps children understand the risks of tsunamis and teaches them essential life-saving skills to protect themselves and those around them.**

— **SONOE MASHINO**

Professor, Research Institute of Nursing Care for People and Community, University of Hyogo

**Accurate, reliable information should be something every child can easily access and use to make good judgement. It is never more important than at a time of emergency or crisis.**

— **MISHAL HUSAIN**

Broadcaster

## COPE Academy, Sichuan Province.

Under Grand Mistress Fu, the COPE squad receive intensive training on disasters and how to be prepared. Join their epic tsunami mission to Matsushima in Japan, where they have to put their disaster risk reduction skills into action.



### COPE TITLES

- Earthquakes
- Floods
- Cyclones
- Storm Surges
- Landslides
- Wildfires
- Droughts
- Volcanoes
- Heatwaves
- Blizzards
- Avalanches
- **Tsunamis**



.....  
Make the Difference.  
Be Ready!