

TEACHER NOTES

GET READY TO DEAL WITH NATURAL DISASTERS

CURRICULUM AND LEARNING INTENT:

Australian Curriculum:

All activities align to **HPE Personal, social and community health strand**. Focus areas: Safety and Mental health and Well-being.

The My Flood Resilient House activity for upper primary aligns to the **Technology Learning area**. This activity stimulates design thinking.

Learning intent: to develop student knowledge, understanding, skills and a disposition that supports safe decision making and protective behaviours both to prepare for and respond during natural disasters.

INTRODUCTION:

Extreme weather is a part of life in Queensland. We're great at preparing for extreme weather events and also at supporting each other to clean-up and recover. While we can't change the weather, we can be better prepared.

Did you know Queensland has more disasters than any other state in Australia? In fact, in the past decade we have had 80 disasters including tropical cyclones, bushfires, floods, storms and storm tides. We also experience storm surges, drought, heatwaves and flash floods.

And as we begin to feel the impacts of climate change, the frequency and severity of these natural disasters is expected to increase.

There has never been a more important time to Get Ready Queensland.

STUDENT EXPERIENCE:

Student responses to learning about and experiencing natural disasters and emergencies can vary. Some will find it frightening, others exciting. However, children better adapt to a situation when they are prepared and know what to expect. Get Ready Queensland activities aim to help families better prepare for a natural disaster.

The descriptions provided for natural disasters vary for age-appropriateness. Teachers will need to tailor the information for their year level.

Given the context of the materials, teachers should be mindful that some students may have been traumatised by previous experiences. Teachers have a duty of care and should be aware of their legal responsibilities in relation to student health and wellbeing.

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GLOSSARY

The below terms clarify and provide context for information and materials in the learning package. They are regularly used in disaster management and awareness reporting and materials. Teachers should apply age-appropriate pedagogies to build student understanding of key terms.

LEARNING SUGGESTION:

Brainstorming activity on the meanings of some of the below terms.
What terms do students already know?

Community volunteers: are the people that help out during a natural disaster because they want to, not because it is their job. They often help people whose homes have been damaged to clean up their property, find somewhere to stay and get food, clean clothes and other items. Two famous examples are the Mud Army from Brisbane's 2011 flood and Team Townsville (the Tinny Army) from the Townsville 2019 floods. More than 25,000 people volunteered with the Mud Army to help strangers across Brisbane who had been affected by the floods to recover. The Mud Army helped people finish clean-ups and repairs in just days, when it would have taken them weeks on their own. Many volunteers also supported Townsville residents during and after the 2019 floods, some flying in from across Queensland. The Tinny Army helped people evacuate in small boats (tinnies) and clean-up, providing enormous physical and emotional support to those affected.

Disaster: is an emergency that causes great harm to people or an area.

Emergency: is when something serious happens and immediate help is needed.

Emergency services: the people that help during natural disasters, including Queensland Fire and Rescue, Queensland Police, Queensland Ambulance Service, State Emergency Service (SES) and the Rural Fire Service.

Evacuate: to remove people from a house or area to keep them safe.

Harm: is physical or mental injury / hurt or damage.

Hazards: are events that may lead to emergencies and disasters. A hazard is a source of danger, like a flood or strong winds.

Prepare: means to get ready. You get ready for things all the time — like when you put on a raincoat or grab an umbrella to get ready for a rainy day. There are lots of things you can do to 'prepare' for emergencies and disasters, like learning what to do if one happens, making a plan with your family and creating an emergency kit.

Risk: is the chance of experiencing a natural disaster, harm or loss of property.

Safe place: is somewhere you can go to be safe from harm. Where you go will depend on the disaster.

QUEENSLAND'S MOST COMMON NATURAL DISASTERS

LEARNING SUGGESTION:

Discussion of what students already know about natural disasters in Queensland and which ones they think are most likely to affect the area of their home and school;

Q: What are the most common natural disasters in Queensland?

Q: What do you know about the features of these natural disasters?

Q: What extreme weather events or disasters do you think we could experience here – at school or at home?

Q: What would you like to learn about natural disasters and extreme weather events in Queensland?

FEATURES OF NATURAL DISASTERS



BUSHFIRES: are unplanned vegetation fires and include grass fires, forest fires and scrub fires. Bushfires are a natural, essential and complex part of the Australian environment and have been for thousands of years. Bushfires can significantly impact on lives, property and the environment. Bushfires can be started by natural causes, such as lightning strikes, or by people (accidentally or on purpose). Weather and fuel conditions play a part in bushfires happening. Materials such as leaf litter, bark, small branches and twigs, grasses and shrubs can provide fuel for bushfires. Dry fuel is more likely to catch fire and burn easily; damp or wet fuel may not burn. Hot, dry and windy weather can contribute to fire danger.

Specifically, weather-related factors that contribute to an increased risk of bushfire danger include:

- High temperatures
- Low humidity
- Little recent rain
- Abundant dry vegetation
- Strong winds
- Thunderstorms

For more information visit:

knowledge.aidr.org.au/resources/bushfire

and the Fire Weather Knowledge Centre

www.bom.gov.au/weather-services/fire-weather-centre



FLOODS: occur when water escapes (or is released) from a watercourse (such as a lake, river or creek), or a reservoir, canal or dam. Floods in Australia are predominately caused by heavy rainfall, although extreme tides, storm surges, snow melt or dam breaks can also cause flooding. More recently, coastal flooding as a result of sea level rise due to climate change is being considered in planning and land management strategies.

Floods are one of Australia's most deadly natural disasters—but they are also important for the life cycle of many plants and animals, and for agriculture.

Find out more at:

media.bom.gov.au/social/blog/2156/explainer-what-is-a-flood/

Queensland Chief Scientist:

www.chiefscientist.qld.gov.au/publications/understanding-floods

FEATURES OF NATURAL DISASTERS

CYCLONES: are low pressure systems that form over warm tropical waters. They typically form when the sea-surface temperature is above 26.5°C. Tropical cyclones can continue for many days, even weeks, and may follow quite erratic paths. A cyclone will dissipate once it moves over land or over cooler oceans.

Impacts include:

- **gale force winds** with wind gusts in excess of 90 km/h around their centre. In the most severe cyclones, gusts can exceed 280 km/h. These winds can cause extensive property damage and turn airborne debris into lethal missiles. It is important to remember when the eye of a cyclone passes over a location, there will be a temporary lull in the wind, but that this will soon be replaced by destructive winds from another direction.
- **heavy rainfall** associated with a tropical cyclone can produce extensive flooding. The heavy rain can persist as the cyclone moves inland and weakens into a low pressure system, hence flooding due to an ex-tropical cyclone can occur a long way from where the cyclone crossed from the sea onto land.
- **storm surges** from cyclones can cause the sea to rise well above the highest tide levels, flooding low-lying areas, sometimes for kilometres inland. These storm surges are caused mainly by strong, onshore winds and reduced atmospheric pressure. Potentially, the storm surge is the most dangerous hazard associated with a tropical cyclone.

Video: Watch a Bureau of Meteorology video to better understand the different categories of cyclones at youtu.be/qTV8Qft6Nco. Appropriate for upper primary.

Find out more at:

www.bom.gov.au/cyclone/tropical-cyclone-knowledge-centre/understanding/tc-info/

www.bom.gov.au/cyclone/tropical-cyclone-knowledge-centre/understanding/storm-surge/



DROUGHT: is a prolonged, abnormally dry period when the amount of available water is insufficient to meet normal use. Put simply, drought occurs when there's not enough rain. Drought impacts on farmers' ability to grow crops and feed livestock. This often leads to reduced incomes for farmers which then impacts on the shops, services and workers of neighbouring towns. If a drought goes for a long time people can leave the farms and neighbouring towns in search of work and more opportunities.

Find out more at:

media.bom.gov.au/social/blog/2179/explainer-what-is-drought/

HEATWAVES: occur when the maximum and the minimum temperatures are unusually hot over a three-day period.

Heatwaves are classified into three types:

- **Low-intensity heatwaves** are more frequent during summer. Most people can cope during these heatwaves.
- **Severe heatwaves** are less frequent and are likely to be more challenging for vulnerable people such as the elderly.
- **Extreme heatwaves** are rare. They are a problem for people who don't take precautions to keep cool. People who work or exercise outdoors are also at greater risk of being affected.

STEPS TO GET READY

- 1 Know your risk
- 2 Prepare a household emergency plan
- 3 Pack a household emergency kit
- 4 Pack a pet emergency kit
- 5 Get to know your neighbours
- 6 Prepare your home

LEARNING SUGGESTION:

Consider discussing or role-playing an extreme weather scenario to prompt thinking about what steps students need to take to get ready and the order they should take them in. Discuss what steps students have already taken.

Reflection activity: Discuss what students can do with their families to better prepare:

Q: What are the benefits for your health (physical and mental) and your home if the steps are followed?

Q: What are the possible consequences or risks if you don't prepare?

KNOW YOUR DISASTER RISK

Discuss the natural disasters that could potentially affect your home or neighbourhood with your class, teacher, family and friends. You can learn what disasters have happened in the past, such as the 2011 Brisbane Floods, the 2019 Townsville Monsoon and 2017's Cyclone Debbie which impacted the Whitsundays, Airlie Beach and neighbouring region.

Video: Watch this video to learn more about the potential natural disasters we can experience in Queensland and how to prepare for them youtu.be/4alyoTU-Mco. Appropriate for lower and upper primary schools.

PREPARE YOUR HOUSEHOLD EMERGENCY PLAN

Sit down with your family or guardians and prepare your household emergency plan. Where do you go if you can't make it home? Do you know who to contact if there is an emergency?

Find an emergency plan template attached and available at getready.qld.gov.au/plan. The attached plan is appropriate for upper primary school, a simplified version for lower primary is included in the Get Ready class activity sheets.



KNOW
YOUR RISK



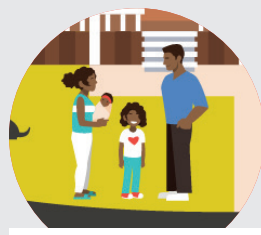
PREPARE A HOUSEHOLD
EMERGENCY PLAN



PACK A HOUSEHOLD
EMERGENCY KIT



PACK A PET
EMERGENCY KIT



GET TO KNOW YOUR
NEIGHBOURS



HAVE A WORKING BEE TO
TIDY YOUR YARD

STEPS TO GET READY

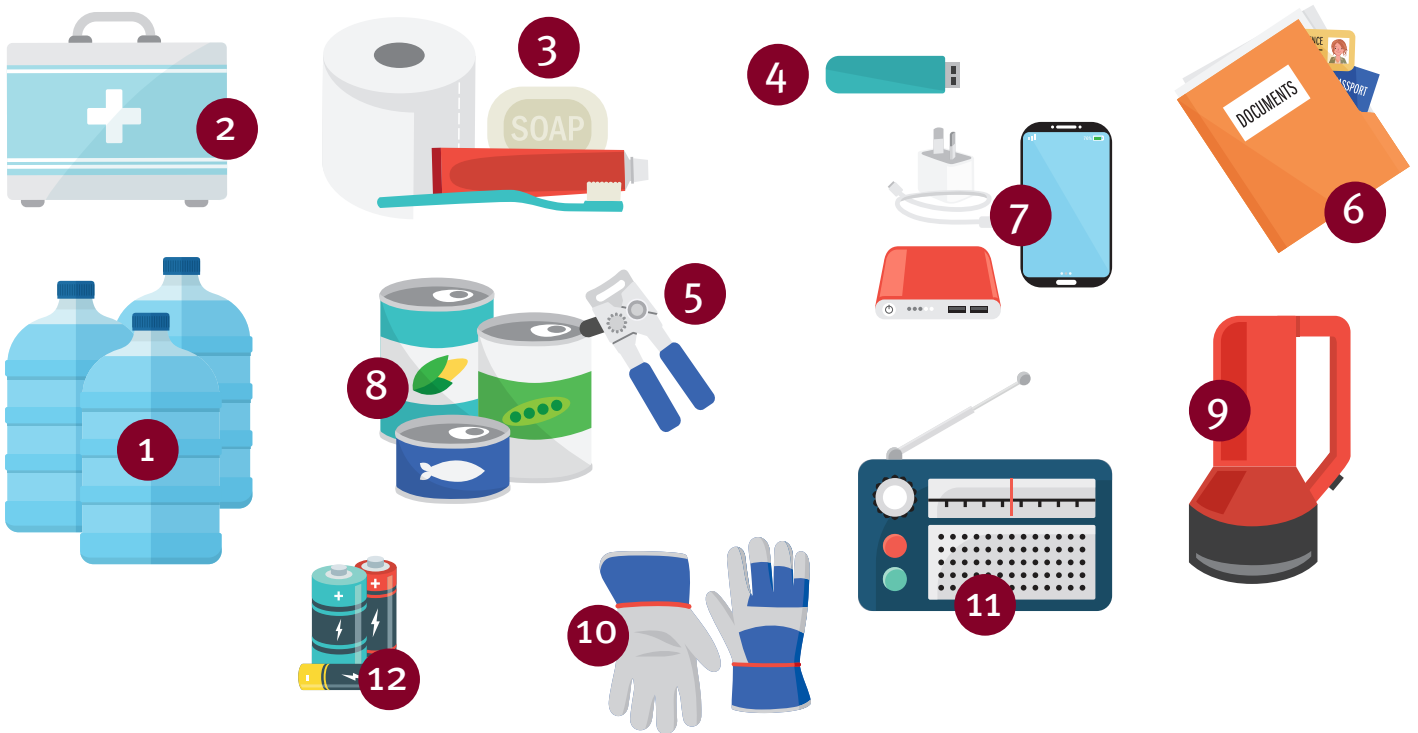
PACK A HOUSEHOLD EMERGENCY KIT

THE SECOND STEP TO GET READY IS TO PACK YOUR EMERGENCY KIT

If, as a result of a natural disaster, you are unable to leave your home for an extended period, your emergency kit will equip your household for at least three days of isolation.

ESSENTIAL EMERGENCY KIT

Your kit should be kept in a sturdy waterproof storage container and stored in a safe place in your home. Make sure it is easy for all members of the household to access (except young children – make it childproof if necessary). Make a note of the emergency kit's location on your household emergency and evacuation plan.



1. Pack 10 litres of drinking water per person at a minimum.
2. A properly equipped first aid kit with a week's supply of prescription and over-the-counter medication.
3. Include toiletries you will need for at least three days such as a roll or two of toilet paper, toothpaste, toothbrushes, soap, shampoo, personal hygiene products, sunscreen and insect repellent.
4. Scan and save important documents, contacts, emails and photos to a USB and keep it in your emergency kit.
5. Although most cans have rings pull there are still quite a few for which you will need a can opener.
6. Your emergency kit should contain up-to-date copies of important documents. For example documents could include your drivers licence, insurance policies (home, content, vehicles, life) passports, legal documents (property deed, wills etc), birth and marriage certificates.
7. Your mobile phone is key to keeping connected during a disaster. Extend the life of your phone by ensuring you have a spare phone charger packed as well as a fully charged portable battery / powerpack.
8. Make a three-day menu plan for your household and store a supply of non-perishable food in your kit.
9. Even if your home is not damaged in a disaster, electricity may not be available and you could be left in the dark for quite a while so include a torch (or two) or battery powered lantern.
10. A pair of sturdy work gloves to help prevent injury and infection when handling rubbish and debris.
11. A battery powered radio is one of the most reliable items in a disaster especially during power and internet loss.
12. Make sure you have enough spare batteries to last three days.

STEPS TO GET READY

PET EMERGENCY KIT



1. Food and bottled water for at least five days – include feeding bowls and a can opener.
2. Medicines with clear instructions, medical records and first aid.
3. Blankets, bedding or nesting material.
4. Favourite toys that bring comfort.
5. Vaccination, registration and current photos of you and your pet.
6. Collar with ID tag, harness or leash.
7. Birds and pocket pets need shelter coverage for their enclosure.
8. Have carry boxes (for smaller pets), leads (for dogs) and halters (for livestock) readily accessible.
9. Litter tray, litter, waste bags and cleaning products.
10. Contact details for your veterinarian, local animal shelter, local council and alternative animal accommodation facility.
11. Evidence that your pet is a service animal and appropriately trained to access public areas.
12. Consider whether pet insurance is right for you and have relevant paperwork in your emergency kit.

STEPS TO GET READY

GET TO KNOW YOUR NEIGHBOURS

In an emergency the people nearest you may be the people you'll rely on for help, or the people you'll need to assist. Get to know your neighbours so you can call on each other in an emergency if necessary.

PREPARE YOUR HOME

ALL DISASTERS ARE DIFFERENT, BUT ALL REQUIRE GOOD HOME PREPARATION PLANS

Based on your understanding of the risks that you face, the following guides will help you to make a plan for your family and home, so you can protect what's most important to you.

Home maintenance and preparation for all disasters



1. Check the condition of the roof regularly and repair loose tiles, eaves, screws and cracked or broken guttering or flashing.
2. Clean gutters and downpipes so water can drain away as quickly as possible.
3. Trim trees and overhanging branches that are close to your home.
4. Fix any corrosion, loose fittings and rotting or termite-affected timber.
5. Repair any broken sealant around window sills to make watertight.
6. Empty standing water from any containers and paddling pools that are not frequently emptied in the yard to prevent mosquito growth which can carry disease.

GET READY QUEENSLAND SCHOOL ACTIVITIES

LOWER PRIMARY

Activity sheets: download and browse the selection of Get Ready school activity sheets with fun advice and activities on how to prepare emergency kits, your home and emergency plan in case of a disaster.

ALL PRIMARY

Take the Get Ready Challenge: an online game for students to test their knowledge of how to prepare and respond to a disaster.

Play Get Ready Snakes and Ladders: print and play this specially designed version of snakes and ladders to test your knowledge of how to prepare for a disaster.

UPPER PRIMARY

My Flood Resilient House: Use our guide to flood resilient design and inspiring flood resilient homes from across the world to design and build your own flood resilient design using the supplied paper template, Minecraft®, LEGO®, blocks or other craft items.

ADDITIONAL RESOURCES

The **Get Ready Queensland** website has many resources to support disaster preparation:

getready.qld.gov.au

Extensive class plans on disaster preparedness are available at:

redcross.org.au/get-help/emergencies/resources-about-disasters/resources-for-teachers

The **Bureau of Meteorology** has resources for teachers and students at:

www.bom.gov.au/climate/data-services/education.shtml

REFERENCES

Information in these teacher notes sourced from Get Ready Queensland, the Bureau of Meteorology and the Federal Emergency Management Agency's (FEMA) Prepare with Pedro: Disaster Preparedness Activity Book (see https://www.ready.gov/sites/default/files/2019-06/prepare_with_pedro_activity_book_eng.pdf)

HOUSEHOLD EMERGENCY PLAN

TIP: Keep your emergency plan on the fridge or somewhere safe.

getready.qld.gov.au

Make sure you are ready if disaster strikes. Now is the time to organise what you need in an emergency.



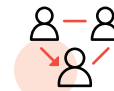
UNDERSTAND



PLAN



PREPARE



CONNECT



TUNE-IN



EMERGENCY KIT

Know your risk

What potential hazards could impact your household and your community?

Important contacts

Don't rely on your mobile phone for contacts – write them below and keep this plan in a safe place. You should consider family, neighbours, insurance and local council contacts.

Important household contacts: _____

Work contacts: _____

School contacts: _____

Childcare contacts: _____

Mains services (electricity, gas, water): _____

Vehicle make and registration: _____

Emergency contacts (local and out-of-town): _____

TIP: Know who you can help and who can help you in an emergency, including your neighbours.

Emergency contact list

Police, Fire or Ambulance.....	000
Flood and storm emergency assistance (SES).....	13 25 00
Poisons information.....	13 11 26
13HEALTH.....	13 432 584
Energex	13 19 62
Ergon Energy.....	13 16 70
Policelink (general enquiries).....	13 14 44
Road traffic and travel information.....	13 19 40
Lifeline	13 11 14
Marine Rescue Queensland.....	1800 073 7283
Tsunami warning.....	1300 878 6264
Translating and Interpreting Service.....	13 74 68
National Relay Service.....	13 36 77

TIP: Tune into warnings with a battery operated radio or smart phone/device with mobile internet.

Pet details

Pets – names and registration details: _____

Veterinarian contact details: _____

Medication: _____

TIP: Include photos of your pets in your document wallet as proof of ownership.

Evacuation and meeting places

Detail safe meeting places: _____

Evacuation destinations: _____

Medical conditions, essential medications and details: _____

Special assistance household members and details: _____

Evacuation checklist

While official advice may be given to evacuate, ensure you have a plan to self-evacuate if needed.

- ☐ Has official advice been given to evacuate?
- ☐ Do you know where you will be evacuating to?
- ☐ Do you know the preferred route for evacuation?
- ☐ Have you contacted your out-of-town emergency contact?
- ☐ Is your vehicle full of fuel?
- ☐ Evacuation kit
- ☐ Emergency kit
- ☐ Do you have essential medications?
- ☐ Have you packed important documents and valuables?
- ☐ Have you turned off power, gas and water mains?
- ☐ Are your pets safe and secure?
- ☐ Have you secured and locked your home?
- ☐ Have you checked on neighbours who may need assistance?

If flooding or storm surge is imminent

- Sandbag internal drains and toilets to prevent backwash
- Store electrical items off the ground

TIP: As a household – discuss hazards and potential scenarios – what would you do in the event of each emergency? Where might you be when such an emergency occurs? Do you have a plan to keep in touch?