



Teacher Resource

Aussie Earthquakes

Focus Questions

Discuss the BTN story as a class and record the main points of the discussion. Students will then respond to the following:

1. Where in Australia was there recently an earthquake? Find on a map.
2. What are tectonic plates?
3. How do tectonic plates cause earthquakes?
4. Australia is right on the edge of a tectonic plate. True or false?
5. How many centimetres does the Australian Continental plate move each year?

Activity: What do you see, think and wonder?

After watching the Aussie Earthquakes story students will respond to the following:

- What did you SEE in this story?
- What did this story make you WONDER?
- How did this story make you FEEL?
- Think of three questions you have about the BTN story.

Activity: Class Discussion

After watching the BTN Aussie Earthquakes story, hold a class discussion using the following discussion starters.

- What is an earthquake?
- What causes earthquakes?
- What words would you use to describe earthquakes?
- Who studies earthquakes and why is it important to study them?
- What questions would you like to ask a scientist about earthquakes?



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KEY LEARNING

Students will learn more about the history and the cause of earthquakes in Australia.

CURRICULUM

Science – Year 5 & 6

Scientific knowledge is used to solve problems and inform personal and community decisions.

Science – Year 6

Sudden geological changes and extreme weather events can affect Earth's surface.

Scientific knowledge is used to solve problems and inform personal and community decisions.

Science – Year 7

Scientific knowledge has changed peoples' understanding of the world and is refined as new evidence becomes available.

Geography – Year 7

Causes, impacts and responses to an atmospheric or hydrological hazard.

Talking about earthquakes may be upsetting for some children and may cause some discomfort, distress and/or anxiety. [BTN](#) has a short video about the Important Things to Remember about Upsetting News.

IMPORTANT THINGS TO REMEMBER ABOUT
UPSETTING NEWS

Activity: Glossary

Students will brainstorm a list of key words that relate to the BTN Aussie Earthquakes story. Below are some words to get students started.

| | | |
|-----------|------------|-----------------|
| SEISMIC | FAULT LINE | TECTONIC PLATES |
| EPICENTRE | MAGNITUDE | EARTH'S CRUST |

Ask students to write what they think is the meaning of each word (including unfamiliar words). They will swap definitions with a partner and ask them to add to or change the definition. Check these against the dictionary definition.

Further activities for students:

- Students will add to their glossary by downloading the transcript for the BTN Aussie Earthquakes story and highlight all the words that relate to earthquakes. Add the following words to the glossary to expand students' knowledge on the topic: aftershock, Richter scale, seismologist, seismograph, subduction zone.
- What is the difference between an earthquake and an aftershock?
- How did this story make you feel? Make a list of words that describe how you felt after watching the BTN story.

Activity: Research Project

After watching and discussing the BTN story, what questions do students have and what are the gaps in their knowledge? The following KWLH organiser provides students with a framework to explore their knowledge on this topic and consider what they would like to know and learn.

| What do I <u>k</u> now? | What do I <u>w</u> ant to know? | What have I <u>l</u> earnt? | <u>H</u> ow will I find out? |
|-------------------------|---------------------------------|-----------------------------|------------------------------|
| | | | |

Act like a seismologist

Students will start to think like scientists and develop their own question/s for inquiry, collecting and recording information from a wide variety of sources. Students may develop their own question for inquiry or select one or more of the questions below.

- What is an earthquake? Why do they happen?
- Why do we get earthquakes in Australia?
- What are Australia's worst earthquakes? Use a timeline to highlight your findings. Choose one to explore in more detail.

- How do tectonic plates cause earthquakes? How many tectonic plates make up Australia?
- How do we measure earthquakes? Investigate who invented the seismograph and when.
- What are the impacts of earthquakes?

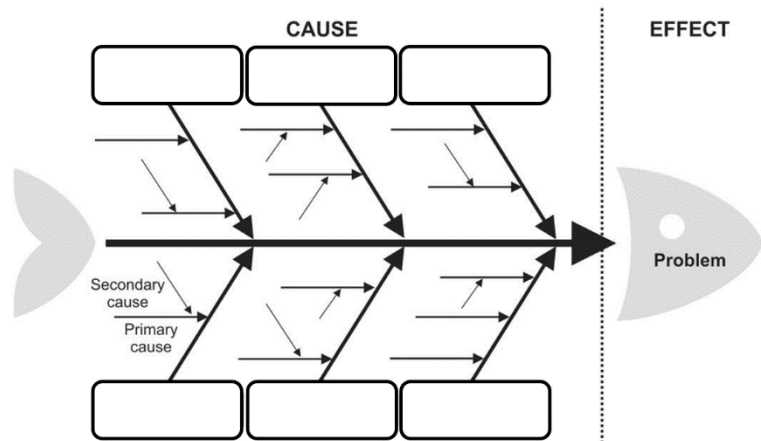
Activity: Cause and Effect

This cause and effect diagram (also known as a fishbone diagram) is a useful tool which can help students identify causes for an effect or problem. The tool can be used during brainstorming sessions to record student's ideas. The tool also helps to sort student's ideas into useful categories.

Materials: Flipchart and marker or whiteboard.

Categories: As a class brainstorm the major categories of causes of the problem. Useful categories for a Fishbone diagram about 'Earthquakes' could include:

- People
- Environment/Earth
- Infrastructure
- Roads
- Businesses
- Animals



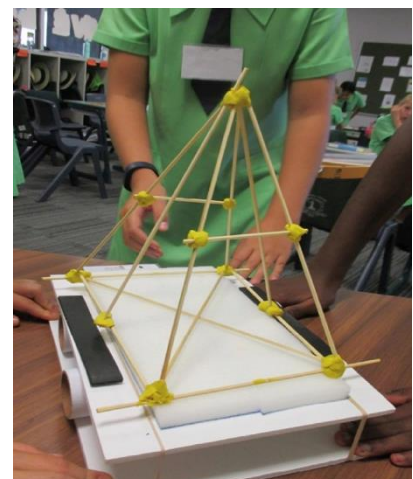
Effects: In small groups, students will then brainstorm the effects that earthquakes can have on these categories. Students can search for news articles and other publications to help with their research.

Solutions:

How can we protect our community from earthquakes? Visit the [Victoria State Emergency Service](https://www.vic.gov.au/victoria-state-emergency-service) website to learn more about what communities can do to stay safe during an earthquake. Research what some of the design features are of an earthquake-proof building.

Activity: Design and Create

Visit the Queensland University of Technology (QUT) for a hands-on [Earthquake Activity](#) for your students. Students will apply their previous knowledge about earthquakes to construct a building that can withstand damage from earthquakes. Students will use the engineering design process to build their own structures with toothpicks and plasticine.



Source: [QUT Earthquake](#)

Activity: Write a feature story

Students will imagine they are a reporter at the scene of the recent earthquake in Melbourne. Students will give a factual account of what happened and write a report on the news story which answers the 5 W's – Who, What, Where, When and Why? Alternatively, students will write a report about the [1989 Newcastle Earthquake](#).

Visit BTN's [Rookie Reporter Training](#) and [Becoming a Journalist](#) to learn more about how to make a news story.



[Rookie Reporter Training](#)



[Becoming a journalist](#)

Useful Websites

- [Melbourne's biggest earthquake in 120 years](#) – BTN Newsbreak
- [The Science of Earthquakes](#) – BTN High
- [Earthquakes: what are they and what causes them?](#) – Newsround
- [Why are earthquakes so hard to predict?](#) – TedED
- [Recent Earthquakes](#) – Geoscience Australia
- [Earthquake](#) – Geoscience Australia (Education)