

**EPISODE 26**  
10th September 2024

**KEY LEARNING**

Students will view a range of BTN stories and use comprehension skills to respond to a series of focus questions.

**CURRICULUM**

**English – Year 4**Use comprehension strategies to build literal and inferred meaning to expand content knowledge, integrating and linking ideas and analysing and evaluating texts.

**English – Year 5**

Use comprehension strategies to analyse information, integrating and linking ideas from a variety of print and digital sources.

**English – Year 6**

Use comprehension strategies to interpret and analyse information and ideas, comparing content from a variety of textual sources including media and digital texts.

**English – Year 7**

Use comprehension strategies to interpret, analyse and synthesise ideas and information, critiquing ideas and issues from a variety of textual sources.

Teacher Resource

**Focus Questions**

As a class, discuss the stories featured in the episode of BTN Classroom and record the main points of the discussion. Students will then respond to the following focus questions.

# Polio Vaccinations

1. What are some symptoms of polio? How does it affect the human body?
2. How does polio spread?
3. When was the first polio vaccine developed?
   1. 1935
   2. 1955
   3. 1975
4. When was Australia declared polio free?
5. What did the BTN story explain about the polio outbreak in Gaza?

Check out the [teacher](https://www.abc.net.au/btn/weekly-teacher-resources/10746906) resource on the Archives page.

# SES Rescues

1. Describe the wild weather in some parts of Australia recently.
2. What does SES stand for?
3. Give examples of the work the SES does.
4. How do people become volunteers with the SES?
5. How did this story make you feel?

# Reef Report

1. Where is the Great Barrier Reef? Locate on a map.
2. What is the biggest threat to the Great Barrier Reef?
3. What impact do rising sea temperatures have on the coral?
4. What is being done to help the reef? Give two examples.
5. Why is it important to protect the Great Barrier Reef?

Check out the [teacher](https://www.abc.net.au/btn/weekly-teacher-resources/10746906) resource on the Archives page.

**Eiffel Tower**

1. The Eiffel tower was built towards the end of which century?
   1. 18th
   2. 19th
   3. 20th
2. Why was it built?
3. The Eiffel Tower was supposed to be demolished after \_\_\_\_\_\_\_\_\_\_\_\_\_\_years.
4. Do you think the Olympic rings should stay on the Eiffel Tower? Why or why not?
5. What did you learn watching the BTN story?

**Emily’s Beef Farming**

1. Why does Emily like cows?
2. What did she learn in agriculture lessons at school?
3. What did Emily do to learn more about the meat industry?
4. What is a heifer?
5. What did you like about the BTN story?



**EPISODE 26**  
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**KEY LEARNING**

Students will investigate how vaccines work and the impact they have had on controlling disease.

**CURRICULUM**

**Science – Year 5**

Scientific understandings, discoveries and inventions are used to solve problems that directly affect peoples’ lives.

**Science – Years 5 & 6**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.

Teacher Resource

**Polio Vaccinations**

# 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. What are some symptoms of polio?
2. How does polio spread?
3. When was the first polio vaccine developed?
   1. 1935
   2. 1955
   3. 1975
4. When was Australia declared polio free?
5. What did the BTN story explain about the polio outbreak in Gaza?

# A picture containing text, monitor, close Description automatically generatedActivity: Note taking

Students will practise their note-taking skills while watching the BTN Polio Vaccinations story. After watching the story, ask students to reflect on and organise the information into three categories. What information in the story was positive, negative, or interesting?

# Activity: Class Discussion

Discuss the information raised in the BTN Polio Vaccinations story. Ask students to record what they learnt about polio and vaccines. What questions do students have? Use the following questions to guide the discussion:

* What is polio?
* How does it affect the body?
* A picture containing text, vector graphics

  Description automatically generatedHow does polio spread?
* What is a vaccine?
* What vaccines do you know about?
* What impact have vaccines had on controlling disease?
* Why do you think it is important to learn about this topic?

# Activity: Glossary

Students will brainstorm a list of key words that relate to the BTN Polio Vaccinations story. Here are some words to get them started.

|  |  |  |
| --- | --- | --- |
| VACCINE | POLIO | INFECTIOUS |
| DISEASE | IMMUNISATION | VIRUS |

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.

# Activity: Vaccine Research

In this activity students will work in groups to learn more about diseases and how vaccines have helped prevent them spreading in the community. Each group will become experts and then share what they have learnt with other students.

Divide the class into groups. Each group will be assigned a different vaccine which has been developed to prevent one of these diseases (*Polio, MMR (measles, mumps, rubella), diphtheria, tetanus, whooping cough, hepatitis B or chicken pox)* and learn more about it. Each group will need to decide how they will collect and communicate the information they find during their research.

**Research**

Each group will respond to the following questions:

* What disease does the vaccine protect against? Describe the disease.
* What impact has/does the disease have on the community?
* How does it spread? (Direct or indirect contact, airborne transmission, food, water, or blood contamination.)
* When was the vaccine developed? Who developed it?
* How does the vaccine work?
* How often should a person be vaccinated?
* What impact has the vaccine had on controlling the disease worldwide?
* What are some interesting facts about the vaccine?

**Share**

One student from each of the groups will form a new group to share the information they have collected. Students will make sure there is one person from each group at their table. Students will share the information they have collected and learn from one another.

**Reflect**

Students will reflect on the activity by responding to the following questions:

* What did you enjoy about this investigation?
* What would you do differently next time?

# Activity: Elizabeth Kenny

Elizabeth Kenny was a self-trained bush nurse who developed a new way of treating polio. Students can watch the [BTN Elizabeth Kenny biography](https://www.abc.net.au/btn/classroom/elizabeth-kenny/103542512) to learn more about the work she did.

Here is the [BTN teacher resource](https://live-production.wcms.abc-cdn.net.au/cdc036ff13345db3a5f6bc3744bf18e4) for questions and activities for students.

Listen to the [Fierce Girls podcast](https://www.abc.net.au/listen/programs/fierce-girls/elizabeth-kenny-helped-people-with-polio/102575170) to learn more about her life.

# BTN Vaccine Stories

Watch these BTN videos to help students learn more about vaccines.

|  |  |
| --- | --- |
| Epidemiology - Behind The News  [Epidemiology](https://www.abc.net.au/btn/classroom/epidemiology/13494692) | Polio Return - Behind The News  [Polio Return](https://www.abc.net.au/btn/classroom/polio-return/10528090) |
| Vaccination Debate - Behind The News  [Vaccination Debate](https://www.abc.net.au/btn/classroom/vaccination-debate/10523366) | What is a Virus? - Behind The News  [What is a virus?](https://www.abc.net.au/btn/classroom/what-is-a-virus/12066096) |

# Useful Websites

* [Polio](https://historyofvaccines.org/history/polio/overview) – History of Vaccines
* [Polio vaccine introduced in Australia](https://www.nma.gov.au/defining-moments/resources/polio-vaccine-introduced-in-australia) – National Museum Australia
* [Eradicating Polio](https://www.unicef.org/immunization/polio) – UNICEF
* [Polio Return](https://www.abc.net.au/btn/classroom/polio-return/10528090) – BTN
* [Children face a new battle as polio resurfaces in Gaza](https://www.unicef.org.au/stories/polio-in-gaza?srsltid=AfmBOooRsCWDv0-N6aQqWSH1zF8FZ9lykVxgf-SKh7fCBvNYtlEpJpcr) - UNICEF



**EPISODE 26**  
10th September 2024

**KEY LEARNING**

Students will learn more about the threats to the Great Barrier Reef.

**CURRICULUM**

**Science – Year 4**

Living things depend on each other and the environment to survive.

Living things have life cycles.

**Science – Year 5**

Living things have structural features and adaptations that help them to survive in their environment.

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

**Science – Year 6**

The growth and survival of living things are affected by physical conditions of their environment.

Scientific understandings, discoveries and inventions are used to solve problems that directly affect peoples' lives.

**Science – Year 7**

Classification helps organise the diverse group of organisms

Interactions between organisms, including the effects of human activities can be represented by food chains and food webs.

Teacher Resource

**Reef Report**

# 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 is the Great Barrier Reef? Locate on a map.
2. What is the biggest threat to the Great Barrier Reef?
3. What impact do rising sea temperatures have on the coral?
4. What is being done to help the reef? Give two examples.
5. Why is it important to protect the Great Barrier Reef?

# Activity: Note Taking

A picture containing text, monitor, close

Description automatically generatedStudents will practise their note-taking skills while watching the BTN Reef Report story. After watching the story, ask students to reflect on and organise the information into three categories. What information in the story was...?

* Positive
* Negative or
* Interesting

# Activity: Class Discussion

After watching the BTN Reef Report story, hold a class discussion using the following discussion starters.

* Have you ever visited the Great Barrier Reef? What did you see there? Describe your experience.
* What is a reef? List some of the main features. What does a reef look like?
* Where is the Great Barrier Reef? Find on a map.
* What do you know about the health of the Great Barrier Reef?
* Why is the reef important to Australia and the rest of the world?
* What do you want to learn about the Great Barrier Reef?

# Activity: Glossary

Students will brainstorm a list of key words that relate to the BTN Reef Report story. Here are some words to get them started.

|  |  |  |
| --- | --- | --- |
| CORAL | WARMING OCEANS | CORAL BLEACHING |
| CROWN-OF-THORNS STARFISH | BIODIVERSITY | THREATS |

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 Reef Report story and highlight all the words that relate to the topic.
* What other words relate to this issue? Students will choose additional keywords and concepts to add to their class glossary. For example, ecosystem, climate change, global warming, overfishing and conservation. Students will find a definition and add to their Great Barrier Reef glossary.

# Activity: Inquiry based-learning

After watching and discussing the BTN Reef Report story, what questions do students have? 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 **know**? | What do I **want** to know? | What have I **learnt**? | **How** will I find out? |
|  |  |  |  |

**Questions for inquiry**

Students will develop their own question/s for inquiry. Students will collect and record information from a wide variety of sources. Students may develop their own question for inquiry or select one of the questions below.

* Why is the Great Barrier Reef important? Think about the social, cultural, economic and ecological importance of reefs.
* Where is the Great Barrier Reef? Find on a map. What is the size of the reef? How old is the reef? How does it compare to other reefs around the world?
* What makes the Great Barrier Reef unique?
* What is the Goldilocks Principle and how does it relate to coral? Explore how coral reefs function and their dependence on temperature.
* What are some threats to the Great Barrier Reef? (For example, climate change, crown-of-thorns starfish, plastic pollution). Choose one to explore in more detail and create a fishbone diagram to highlight the cause of the problem and its effects.
* Why should we protect the Great Barrier Reef? Write a persuasive piece of writing explaining your reasons.
* What is the difference between soft coral and hard coral? Give some examples of each type.

# Activity: Cause and Effect Diagram

In this activity students will work collaboratively to identify and understand the decay of coral reefs using a fishbone cause and effect diagram. The fishbone diagram resembles the skeleton of a fish, with the "head" representing the problem (decaying Great Barrier Reef) and the "bones" representing different categories of causes. The fishbone diagram helps to develop a more in depth understanding of a problem. It is a tool that can be used during brainstorming sessions to sort and record student’s ideas into useful categories.

**Before** starting this activity, facilitate a class discussion using the following questions:

* Have you heard that the Great Barrier Reef is in decay? What do you know?
* Have you seen anything in the news about the health of the Great Barrier Reef? Discuss.
* Find pictures of reefs that are both healthy and in decay. What do you notice about the difference between healthy and decaying coral reefs? Write down your observations.
* What do you think might cause a reef to decay? (Explain to students that reef decay can have natural or human causes).

**What you’ll need:** Butchers paper (large), sticky notes (to record minor causes), a range of coloured markers.

**Problem:** As a class decide on a single statement that describes the problem. Write the problem statement in the “head” of the fishbone diagram. For example, coral reef decay. Refer to the NSW Government website for more information about [Fishbone Diagrams](https://integratedcare.nnswlhd.health.nsw.gov.au/fishbone-ishikawa-diagram-cause-effect/).

**Major causes:** In small groups, students will brainstorm the major causes of the problem. They will write these as the main categories, which are represented as “bones” off the main arrow. Major causes relating to the decay of the Great Barrier Reef could include:

* A diagram with arrows and a box

  Description automatically generatedClimate Change (rising sea levels, extreme weather like cyclones, rising ocean temperatures)
* Natural Factors (crown-of-thorns starfish outbreaks)
* Human Activities (pollution, overfishing, mining)
* Coastal Development (habitat destruction from construction)

**Minor causes**: Students will then identify additional causes related to the issue as minor causes. These can be represented as small “bones” on the diagram. Students will record as many causes as possible relating to the problem.

# Activity – Choose a Project

Individually or in small groups, students will choose one of the following projects to work on and then present their findings to the class.

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**Campaign**

Design a public education campaign to raise awareness about the reef. Think about your campaign’s aim, your target audience, and the value of raising awareness. Create a poster using [Canva](https://www.canva.com/).

**Reporter for a Day**

Investigate some of the threats to the Great Barrier Reef. Write a newspaper article or online news report for kids.

**Reef Animals**

Imagine you are snorkelling on the reef. Draw what you might see underwater. Include marine animals that call the reef their home. Make a diorama of the reef.

**Haiku Poetry**

Write a haiku poem about the Great barrier Reef! Use this [graphic organiser](http://www.readwritethink.org/classroom-resources/printouts/haiku-starter-30697.html) to help brainstorm a list of words about the topic.

# Useful Websites

* [Reef Reprieve](https://www.abc.net.au/btn/classroom/reef-reprieve/102698888) – BTN
* [Reef Bleaching](https://www.abc.net.au/btn/classroom/reef-bleaching/103602272) – BTN
* [Coral Bleaching](https://www.abc.net.au/btn/classroom/coral-bleaching/10524996) – BTN
* [UNESCO Great Barrier Reef](https://www.abc.net.au/btn/classroom/unesco-great-barrier-reef/13465558) – BTN
* [Great Barrier Reef](https://australian.museum/get-involved/amri/lirs/great-barrier-reef/) – Australian Museum
* [Great Barrier Reef on one-way path to decay thanks to climate change with no end in sight, report says](https://www.abc.net.au/news/2024-08-24/great-barrier-reef-continued-deterioration-climate-change/104265330) – ABC News
* [Life Below Water (interactive)](https://www.unep.org/interactives/status-world-coral-reefs/) – UN Environment Programme



Teacher Resource

**BTN Transcript: Episode 26 - 10/9/2024**

Hey, I'm Amelia Moseley and you're watching BTN. Thanks for hanging out with us again. Let's see what's coming up on today's show. We learn about the volunteers who come to the rescue when the weather gets wild, get the latest report card for the Great Barrier Reef and learn about the history of this famous French tower.

# Polio Vaccinations

Reporter: Wren Gillett

*INTRO: But first today to Gaza where recently, there was a pause in the fighting so that kids could be vaccinated against polio. It's a devastating disease which used to affect children around the world. Wren can tell you more about the history of polio. But just a warning first, this story is does contain some things that might be upsetting to some people.*

It's 1937. A deadly virus is sweeping across Australia. Schools and parks are closed, children are warned to wash their hands, and distance themselves from other people. And police are stopping people at state boarders.  
  
WREN GILLETT, REPORTER: But it wasn't Covid that had everybody so worried back then. It was a disease called polio.  
  
Polio, or poliomyelitis, is a serious infectious disease that spreads really easily, basically through any kind of human contact. And while symptoms start off kind of like the flu, they can quickly become much worse. Polio can cause people to become paralysed, losing the ability to move certain limbs, and in some cases, breathe. And it mostly affects kids. Polio has existed for a long, long time, in fact there are ancient Egyptian images that appear to show its effects. Although it wasn't properly described as a disease until 1789. And as people started to travel more, so did polio. There were big outbreaks in Australia.  
  
WREN: By the start of the 20th century, polio was one of the most feared diseases in the world.  
  
By the 1950s polio was killing or paralysing more than half a million people around the world every year. But then, in 1955, everything changed, when an American scientist named Dr Jonas Salk, developed the first successful polio vaccine. While it couldn't cure the disease, it could prevent it, and he worked to make sure everyone could access it.  
  
INTERVIEWER: Who owns the patent on this vaccine?

DR JONAS SALK: The people I would say. There is no patent. Could you patent the sun?  
  
Here in Australia, kids and adults would line up to get the jab.   
  
REPORTER: Ouch, but if it keeps her free from polio, it's worth it.  
  
And while there was another outbreak in the 60s, polio became less and less common. Around the world, Governments and organisations worked to vaccinate as many people as possible. By 1994, polio had been eliminated from the Americas. By 2000, Australia was declared polio free. And as of August this year, Afghanistan and Pakistan are the only two countries where cases regularly appear.  
  
WREN: Polio is seen as one of the world's biggest success stories when it comes to vaccines.  
  
But recently, a lot of experts were really worried when polio appeared in Gaza.  
  
ANTONIO GUTERRES, UN SECRETARY-GENERAL: The polio virus has been detected in wastewater samples.  
  
It's the first time polio been detected there in 25 years. While experts aren't exactlysure how it got there, they say the war has created the perfect conditions for a virus like this to spread.  
  
LOUISE WATERIDGE, UN SENIOR COMMUNICATIONS OFFICER: People just don't know where to go. If you see the humanitarian area, if you see the khān yūnis massasi area, you can barely even see the sand of the floor anymore, it's just packed shelter to shelter.  
  
The outbreak had enough people worried, that the Israeli military and Hamas agreed to pause fighting, so that 640,000 children in Gaza could be vaccinated. The UN says kids here in Gaza are still facing huge threats to their health and safety, but they say so far, the vaccination campaign has been a success.  
  
STEPHANE DUJARRIC, SPOKESPERSON FOR THE UN SECRETARY-GENERAL: The polio pauses are a rare ray of hope and humanity in the cascade of horror that we have seen in Gaza.   
  
Here and around the world, health authorities will keep fighting polio in the hope that one day, it will be gone for good.

**Did you know?**

Did you know the 32nd President of the United States, Franklin D Roosevelt, got polio when he was 39 and used a wheelchair and leg braces for mobility.

**News Quiz**

Nga Wai honi I te po has been crowned Māori Queen in Aotearoa, a country which is also known as what? Aotearoa is the Māori name for New Zealand.  Kuini Nga Wai hono I te po is the youngest daughter of Kingii Tuheitia Pootatau Te Wherowhero, who died recently and was buried in a big ceremony last week. Kuini Nga Wai is only the second queen in the history of the Māori monarchy, which was created in the 19th century to help unite the Māori people.  

Also in Aotearoa, last week the government decided to triple the tax that tourists will have to pay to visit the country.  How much will Australians now have to pay to visit New Zealand. $100, $50 or nothing? The answer is nothing, but only because Australians are exempt from the new tourism tax which has been increased to 100 New Zealand dollars for everyone else.  Aww cheers bru.

Meanwhile, across the ditch, Nunggubuyu woman Selena Uibo has been named opposition leader of which state or territory? Is it South Australia, Western Australia or the Northern Territory? It’s the Northern Territory. Ms Uibo is the first Indigenous woman to leader Labor or any other major Australian political party. Her Deputy Leader is Yaegl man Dheran Young. They’ll have a tough job ahead of them though after the recent election which left Labor with only five seats in the territory parliament.

And which social media platform has been temporarily banned in Brazil.  It’s X. The company’s been in a battle with Brazil’s Supreme Court after it failed to remove dozens of accounts which were accused of spreading disinformation. The court’s now ordered companies like Google and Apple to remove X from app stores and block it from their operating systems

**SES Rescues**

Reporter: Wren Gillett

*INTRO: Parts of Southern Australia were hit by some big storms recently, which resulted in a lot of calls for help to the state's volunteer emergency services. Wren went to talk to a member of the SES to find out what they do and why they're so important when the weather gets wild.*

They're the people we rely on when the weather gets wild. When trees fall, water rises. Or when we're in need of rescuing. Yep, I'm talking about the SES, and last week, they were in high demand, as parts of Australia dealt with some seriously wild weather.  
  
MAKAYLA: I woke up really early to like a crash on my window, and I realised a branch hit my window from one of the trees next to my room.  
  
In Victoria, wind gusts were so strong, they reached the equivalent strength of a category two cyclone.  
  
RHIANNON: About 12:30, there was a really loud bang and half the shed roof came off, and was sort of resting between the trees, then about an hour later the rest of the shed and the tree.  
  
In Tasmania, days of heavy rainfall led to flooding of the Derwent and Styx Rivers.   
  
KELLY: Worried about what's happening right now, but also worried about what the fallouts gonna be.  
  
And throughout it all SES volunteers were there, closing roads, removing fallen trees, patching up roofs, and helping out the people who needed it.   
  
DAVE O'SHANNESSY, SES COMMANDER: Right across the country we've seen 1000s of call outs and that's seen volunteers coming out and helping their community.  
  
Dave here is a commander for the SES,  
  
DAVE: SES stands for the State Emergency Service. Every state and territory around Australia has one. SES is best known for storm and flood emergencies and, of course, rescuing people. But we support all types of emergencies. We support bushfires with the local fire services. We supported health emergencies in recent years. So yeah, we're there to support almost everything you can think of. And sometimes the SES helps without you even knowing about it, clearing a tree off a road so that you can get to school, or your parents can get to work. You may never see them, but they've been there and helped you out. That's what our volunteers do. Just like people's mums and dads, aunties, uncles, they're out there giving up their time, volunteering to support others.   
  
WREN GILLETT, BTN REPORTER: That's incredible. So, people willingly just go, I want to help other people and sign up to be a part of the SES. Is that how it works?   
  
DAVE: Yeah, that's right. They come along, say, g’day, we give them some training. We make sure they're safe, give them a really bright orange uniform, and they're out there helping people.  
  
And this is something that's been happening for a long time. In fact, the SES actually came of the Second World War, when people were trained to become air raid wardens, protecting the community from potential enemy planes and bombs. In 1955, a new volunteer Civil Defence Service was set up. And while at first its members trained to defend Australia from enemy attacks. Over time they shifted their focus to natural disasters. And in the 1970s, the name was changed to the one we know today.  
  
WREN: Are there any sort of, I guess, interesting or weird situations that you've had to respond to?   
  
DAVE: We do some interesting things with animal rescues. So often, goats or dogs will get themselves trapped down cliffs or in weird places. So that's probably some of the more interesting stuff.   
  
WREN: Wow.  
  
DAVE: That old cat up a tree story is 100 per cent true.   
  
WREN: It's true.  
  
DAVE: Yeah.  
  
WREN: So, can anyone become a volunteer for the SES?   
  
DAVE: Yeah, absolutely. SES, volunteering is open to anyone and everyone, and even for those watching this show, when you get to the right age, you can become a volunteer.  
  
WREN: Amazing. Could I become a volunteer?   
  
DAVE: Yeah absolutely. Would you like to join up today?  
  
WREN: I would love that.  
  
DAVE: Cool. We'll get you into some orange.

# Reef Report

Reporter: Justina Ward

*INTRO: The government has released a big new report about the health of the Great Barrier Reef and it's not great. Scientists say that climate change is making it harder and harder for the reef to recover and that more needs to be done to make sure it survives into the future. Here's Justina.*

Cathy: Welcome to Jolly Journey, how can I help.   
  
Jack: I'm looking to book a holiday.  
  
Cathy: Sure. Ooh there'll never be a better time to go the Great Barrier Reef.  
  
Jack: Oh, really?  
  
Cathy: Because its only getting worse.  
  
Jack: Oh.   
  
Cathy: We've got coral bleaching, crown-of-thorns starfish, loss of biodiversity.  
  
Jack: Uh, that sounds horrible.  
  
Cathy: Yeah, it does.  
  
JUSTINA WARD, REPORTER: Yeah, recently we got a look at the 2024 Great Barrier Reef Outlook Report, which is 5-yearly checkup of the reef's health. And to be honest it's a pretty grim read.   
  
Jack: Uh.   
  
It says that some of the impacts of global warming are now "locked in". Meaning they'll happen no matter what we do. And while the Reef has shown to be resilient, it'll face growing threats from warming oceans, and severe tropical cyclones, along with crown-of-thorns starfish outbreaks, poor water quality and unsustainable fishing.  
  
Dr Roger Beeden, Reef Authority Chief Scientist: The biggest threat to the Great Barrier is climate change. It's what all of the signs shows us. That's the case, and unfortunately, that's that forecast to worsen into the future, giving us more disturbances.  
  
Dr Beeden is one of the people who worked on the report, and he says coral are badly affected by warming oceans.  
  
Dr Roger Beeden, Reef Authority Chief Scientist: The foundations of the reef pretty much built by what's behind me, the corals. And they are temperature sensitive. They like Goldilocks. They like things to be warm, but not too warm. And the reality is that when it's too warm, we see changes, or it really affects their ability to grow and thrive.  
  
He says while it's doing well in some places in others its struggling to recover from bleaching and weather events.  
  
Jack: This is really depressing.  
  
Cathy: Wait until you hear about the sea turtles.  
  
Yeah, according to the report most populations of marine turtles have declined along with some populations of sharks, rays, birds and dugongs.   
  
Dr Roger Beeden, Reef Authority Chief Scientist: We've also seen challenges in some of the species that are sort of iconic, on the great barriers, some of the things like dolphins and some of the dugongs and the like.   
  
Luckily, it's not all bad news.  
  
Dr Roger Beeden, Reef Authority Chief Scientist: But also about animal populations, some of those have bounced back through long term management measures, so things like humpback whales are doing really well in this part of the world, which is excellent.   
  
Jack: Is there anything we can do?  
  
Cathy: Well, you could stop global warming.   
  
Yeah, it's a big ask, but it's something many governments and organisations are working on. Here in Australia, we're trying to get to net zero greenhouse gas emissions by 2050, the government has also put $1.2 billion dollars towards improving things, like improving water quality, controlling coral-eating crown of thorns starfish, reducing overfishing and looking at ways to reduce plastic and pollution.   
  
Dr Roger Beeden, Reef Authority Chief Scientist: It's not like there's it's hopeless at all. There are actions that we can take, and every action matters.   
  
Jack: Ah, well that's good then.  
  
Cathy: You play a big part in this too ya know.  
  
Jack: Me?  
  
Cathy: Yeah.  
  
Dr Roger Beeden, Reef Authority Chief Scientist: Everybody can take action on climate. Don't feel that you can't. Everybody can in whatever way. And every bit matters.  
  
Dr Beeden says things like recycling, reducing plastic use, saving power around the house and educating yourself and others. All make a huge difference in protecting the Great Barrier Reef. And what despite what Cathy here might have you believe, the reef is still a natural wonder.  
  
Dr Roger Beeden, Reef Authority Chief Scientist: Going and seeing it is such a motivating way to both learn about the system, what you can do about it, and actually feel that you know, hope for the future.

Jack: You know, you're not really a very good travel agent are you.  
  
Cathy: Silence.

# Eiffel Tower

Reporter: Jack Evans

*INTRO: The Paralympics have just wrapped up in Paris, but the city's leaders want to keep a reminder of this year's games on one of its most famous landmarks. Yep, they want these to stay on the Eiffel Tower. It's a controversial decision, but the tower has a history of dividing opinion. as Jack found out when he looked into the history of the Eiffel Tower.*

NARRATOR: In an old house in Paris, all covered in vines. Lived a couple of little kids in 1 straight line. The tallest of all was Jackeline.  
  
MISS CLAVEL: Okay class, today we are going to learn about the Eiffel Tower. Who can tell me why is it called the Eiffel Tower? Yes Jackeline?   
  
JACKELINE: Because it is so big, when you look at it it’s an EYE-ful.   
  
MISS CLAVEL: Very cheeky Jackeline. Anyone else? Anyone?   
  
It's named after the engineering company that designed and constructed it, Eiffel.  
  
MISS CLAVEL: Correct. Tres Bien monsieur.  
  
JACKELINE: What a show off.   
  
Don't worry Miss Clavel, I'll take it from here.  
  
MISS CLAVEL: Merci.  
  
As you probably know, the Eiffel Tower has been one of Frances most famous landmarks for more than 100 years. But did you know, it was never supposed to be permanent.   
  
JACKELINE: I knew that.  
  
No you didn't.  
  
JACKELINE: Okay, no I didn't.  
  
The tower was designed and built in the late 1800s as part of a competition to design. There were two reasons for the competition. The first was to celebrate the 100th Anniversary of the French Revolution, when the French monarchy met their end to one of these. In fact, some suggest building a giant guillotine, but they went with Eiffel's design instead. The second purpose of the tower was to be the centre piece of the 1889 World's Fair in Paris.   
  
JACKELINE: The World's Fair?  
  
What is the World's Fair I hear you ask?  
  
JACKELINE: Non.

Okay well if you don't want to know I won't tell you.  
  
JACKELINE: Okay, I 'spose I am a little curious.   
  
For a long time, the World's Fair or Universal Expo was a really big deal. It was kind of like the Olympics of engineering where countries would come together to show off their new inventions. Like the first ever telephone, the first ever Ferris Wheel and a whole lot of monorails. Oh, and do you recognise this famous tune? Yep, at the 1964 World's Fair in New York Walt Disney premiered the now famous ride, It's a small world.  
  
JACKELINE: Oh no. It will take me weeks to get that song out of my head.   
  
It was also common for the host city to build a new structure for the fair and a lot of them still exist. When it was built, the Eiffel Tower was the tallest man-made structure. Sitting at 320 metres tall which is about the same height as an 81-storey building.  
  
STUDENT: That is as tall as Jackeline.  
  
JACKELINE: I may be tall, but on the inside, I am small.   
  
MS CLAVEL: Don't worry Jackeline, people made fun of the Eiffel Tower too.  
  
Yep not all Parisians were Eiffel Tower fans when it was first unveiled. Some called it "useless" and "monstrous". Originally, the tower was meant to come down after 20 years. But Gustav Eiffel campaigned for it to stay and even funded scientific experiments on top of the tower including placing an antenna at the top of it that is still being used today. Which means the Eiffel Tower hasn't been demolished, obviously, and each year about 7 million people visit it.   
  
Recently it got a starring role in the Olympic and Paralympic Games, and now Paris' mayor wants the tower to wear a permanent reminder of the Olympic Games. She's proposed fixing a new set of permanent Olympic rings to the tower, but once again it's divided Parisians.  
  
WOMAN: I think that it is not necessarily a good idea.  
  
WOMAN: This Eiffel Tower is quite beautiful, decorated in these Olympic rings.  
  
MAN: I don't see the point.   
  
JACKELINE: I know, why don't they put a picture on it of the best Parisian ever, me, Jackeline.   
  
MISS CLAVEL: Oh Jackeline.   
  
**Quiz**

Which other famous landmark did Eiffel help to build? Was it the Statue of Liberty, the Sydney Harbour Bridge or the Tower of Pisa? It was the Statue of Liberty. Alexandre-Gustave Eiffel designed the interior structure of the famous statue which was gifted to the USA by France in 1884.

# Sport

The Paralympics have wrapped up in Paris. Australia finished ninth overall taking home 18 gold, 17 silver and 28 bronze medals. Australia's final medal was secured by Madison de Rozario who claimed silver in the women's wheelchair marathon. And as for the closing ceremony? Well, it was action-packed, with Aussie flag bearers James Turner and Lauren Parker leading the way.  
  
Speaking of things wrapping up, the 2024 US Open has also come to an end. The men's title was taken out by Italy's Jannick Sinner after defeating America's Taylor Swift. Ah no, that's not right, she was just there watching. Taylor Fritz in a straight sets victory. Meanwhile the women's trophy went home with Aryna Sabalenka after taking out the USA's Jessica Pegula.  
  
Yeah speechless is exactly how this race is gonna leave you. This is the 37th edition of the Dolomitenmann referred to as "the world's most extreme team relay race" where 220 teams are pushed to their limits in Austria by running, paragliding, mountain biking and kayaking their way to victory.  
  
And finally, it's time to get muddy cause this is the Mud Bowl. In this version of American football players trudge through knee-deep mud while trying to reach the end zone. Yeah, I think I’ll pass.

# Emily Beef Farming

Rookie Reporter: Emily

*INTRO: Finally, today let's meet Emily, who's a winner of the ABC's Takeover Lismore competition, which asks kids in the Lismore area to tell stories about their lives and the things that are important to them. Emily is going to share her passion for beef farming. Check it out.*

There’s something about cows that intrigues me. I like how they're quiet and shy. A bit like me.

We don't own cattle at our farm, but fortunately, my neighbours do, and they don't mind when I hop the fence to help out.

For my birthday, the only thing I wanted was to go to a cattle auction. I love being around all that excitement.

Last year I studied agriculture at school. The classroom was in a shed and the lessons held in paddocks.

It immediately became my favourite subject. I was taught how to care for cattle and prepare them for showing in competitions.

I'd never done anything like that before, but soon it was all I could think about. Training a steer is like training a big dog, they each have their own personalities, but you can't get too attached knowing they're going to end up at the meatworks.

To help learn more about the meat industry, I decorated my bedroom with posters of cattle and meat cuts. This came in handy when I entered the Hoof & Hook youth competitions around the area. Not only did I parade my neighbours steer in the ring, but I also got to judge the cattle and the quality of the beef.

In fourth I placed D. She’s a great heifer. She hasn’t fully developed like the other two. For the carcass judging, you get five minutes to answer questions about the shape, colour, and marbling of the meat. Explaining my score to the judge was daunting, but I eventually relaxed, and it felt right. I ended up placing second. In the future I want to start a Hereford stud and breed my own cattle.

Judging livestock has given me the confidence I didn't know I had. And my shyness disappears once I stand in that ring.

**Closer**

That's all we have for today. We'll be back with more next week but in the meantime, you can jump online whenever you like and check out more stories and specials and resources for your teachers. And you can catch BTN Newsbreak every weeknight. Have a great week and I'll see you soon. Bye.