

## Fires and Floods

1. Briefly summarise the BTN *Fires and Floods* story.
2. Where do Jessica and Jonathan live? Find using Google Maps.
3. Describe the impact of the bushfires on the environment.
4. How was Paige and her family affected by the fires?
5. How has the use of helicopters helped control the fires?
6. During this time of year, it is the dry season in Far North Queensland. True or false?
7. Why did they have to open the flood gates of the dam?
8. How have the floods affected people's homes?
9. Describe the images in the *Fires and Floods* story.
10. What did you learn watching the BTN story?

## Extreme Weather

1. In pairs, discuss the *Extreme Weather* story and record the main points of the discussion.
2. Where is the reporter Martin from?
3. Where in Australia did it reach 49.5 degrees recently? Find using Good Maps.
4. The Bureau of Meteorology says it was Australia's hottest January in history. True or false?
5. Compare the temperature in Australia, Scotland and the United States in January.
6. What is meant by the term weather?
7. What is meant by the term climate?
8. How might a change in climate affect people?
9. Brainstorm a list of extreme weather events that affect people around the world.
10. What do you understand more clearly since watching the BTN story?

Check out the [Extreme Weather resource](#) on the Teachers page. Get your class involved in BTN's [Ask A Reporter!](#) This week's topic is Extreme Weather.



## Murray-Darling Warning

1. Where is Menindee? Find using Google Maps.
2. Which states does the Murray-Darling system span?
3. Low water levels in parts of the Darling River have caused an outbreak of \_\_\_\_\_.
4. What does the Government say has caused millions of fish in the Darling River to die?
5. About how much of Australia's food supply comes from farms in the Murray-Darling Basin?
  - a. 1 quarter
  - b. 1 third
  - c. 1 half
6. What is the role of the Murray-Darling Basin Authority?
7. Why was there a big investigation into the Murray-Darling Basin Plan?
8. What is being done to help Murray cod near Menindee?
9. Name three facts you learnt watching the BTN story.
10. How did this story make you feel? Discuss in pairs.

Check out the [Murray-Darling Warning resource](#) on the Teachers page.

## Storm Girl

1. Retell the BTN *Storm Girl* story using your own words.
2. How does Mr Percival stand out from other pelicans?
3. How did Shalise meet Mr Percival?
4. Why is fishing line so dangerous to marine life?
5. How long does monofilament line last in the ocean?
  - a. 6 years
  - b. 60 years
  - c. 600 years
6. Birds like Mr Percival have very sharp beaks. True or false?
7. Explain what Shalise is doing to help protect marine life.
8. What has the local council done to help Shalise?
9. What does Shalise do with the fishing line that she collects?
10. What questions would you like to ask Shalise?

## Symphony School

1. Who runs the 2-week band camp featured in the BTN *Symphony School* story?
2. How did Leanne become interested in music?
3. How many hours a day do the students practise and perform whilst at the band camp?
  - a. 1 hour
  - b. 6 hours
  - c. 12 hours
4. What different types of instruments can be found in an orchestra.
5. Give an example of a woodwind instrument.
6. The lead violinist is also called a \_\_\_\_\_ master.
7. Describe the role of the conductor.
8. What's your favourite instrument? Why?
9. What was surprising about this story?
10. Illustrate an aspect of the *Symphony School* story.

# Extreme Weather

## Focus Questions

1. In pairs, discuss the *Extreme Weather* story and record the main points of the discussion.
2. Where is the reporter Martin from?
3. Where in Australia did it reach 49.5 degrees recently? Find using Good Maps.
4. The Bureau of Meteorology says it was Australia's hottest January in history. True or false?
5. Compare the temperature in Australia, Scotland and the United States in January.
6. What is meant by the term weather?
7. What is meant by the term climate?
8. How might a change in climate affect people?
9. Brainstorm a list of extreme weather events that affect people around the world.
10. What do you understand more clearly since watching the BTN story?

## Activity

### Class Discussion

Discuss the BTN *Extreme Weather* and *Fire and Floods* stories as a class. Ask students to record what they know about weather, climate and extreme weather. What questions do they have? Use the following questions to help guide discussion:

- What is the difference between weather and climate?
- What is extreme weather? Develop a class definition.
- What makes a weather event extreme?
- What are some examples of extreme weather events in Australia?
- Give examples of extreme weather in other countries.
- How does extreme weather impact on people and the environment?
- Which parts of Australia are most affected by extreme weather?
- Can we predict extreme weather events?
- How can we prepare for extreme weather?
- Have you ever experienced extreme weather? Explain your answer.



## Key Learning

Students will develop a deeper understanding of extreme weather events in Australia and the impact on people and the environment.

## Curriculum

### Science – Year 6

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

Science involves testing predictions by gathering data and using evidence to develop explanations of events and phenomena and reflects historical and cultural contributions

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

### Geography – Year 7

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

## Activity

### Glossary of key terms

While watching the BTN story students will record as many key words about the topic as they can. Students then clarify their understanding of the key words by writing down what they think the word means. Students will swap definitions with a partner and ask them to add to or change the definition. Check them using a dictionary or other source.

Keyword	My definition	Dictionary definition
Weather		
Climate		
Extreme		
Heatwave		
Bushfire		
Drought		
Flood		
Cyclone		

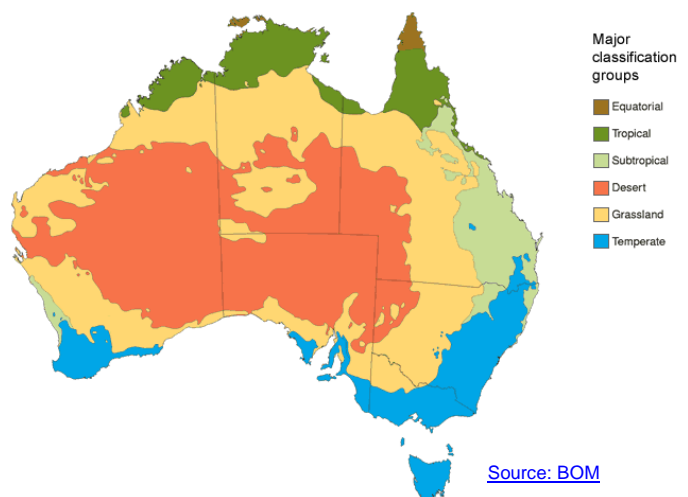
## Activity

### Climate zones in Australia

Students will investigate why we have different climates across Australia. Divide the class into six groups, and assign one of the following six climate zones to each group:

- Equatorial
- Tropical
- Subtropical
- Desert
- Grassland
- Temperate

Ask each group to research one of the six climate zones and present their findings in an interesting way. Using your classroom interactive whiteboard, make an enlarged version of a map of Australia and trace onto paper. Ask students to outline the states, capital cities and the different weather ones on the map.



Students can watch the [Ask BOM video – Why do we have different climates across Australia](#) to help with their research.

**Define:** What do I want to know? Students choose an extreme weather event to investigate.

**Key questions to research**

Here are some questions to help guide students' research:

- How does the extreme weather event occur?
- Which parts of Australia are most affected by the event?
- How does it affect people? What are the immediate and long term needs of people affected by the extreme weather event?
- What are some ways to help people affected?
- How is the environment affected?
- What can be done to minimise future damage?

**Locate: Where do I find the information?**

What resources will help answer my questions? (Internet, people, resource centre, organisations, print). Discuss with students what a reliable source is.

**Select: What information is important for the investigation?**

Students may need support to sort through and select relevant information.

**Organise: How do I make sense of the information?**

Students can organise their research by creating main headings from their questions. Write each heading on a separate piece of paper. Record the information found for each question.

**Present: How do we let others know about this information?**

Possible ways to present their research include:

- A 'Did You Know' Facts sheet
- Infographic
- Oral presentation
- [Prezi](#) presentation
- Create an infographic using [Canva](#)
- 

**Evaluate: What have we learnt?**

Students reflect on what they have learnt about an extreme weather event during their investigation. Students will reflect on their learning and respond to the following.

- What I learned...
- What I found surprising...
- What I would do differently next time...



## Activity

### Visual Literacy – Queensland floods in pictures

Students look at the [ABC News photographs](#) of the floods in Townsville. Ask students to look at the photos and respond to the following questions:

- What is happening in the image?
- What question/s would you like to ask about the image?
- How does the image make you feel?
- Create a caption for each image.
- What does the image tell you about the impact floods have on a community?



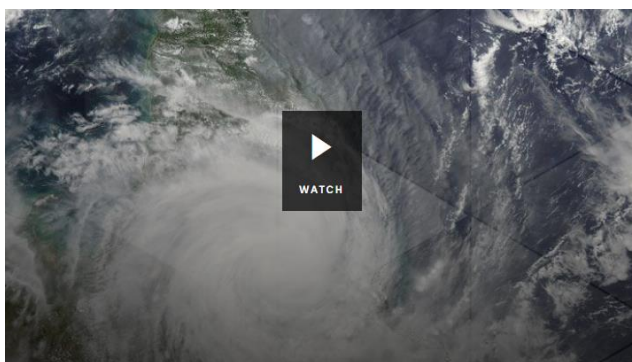
## Activity

### BTN stories

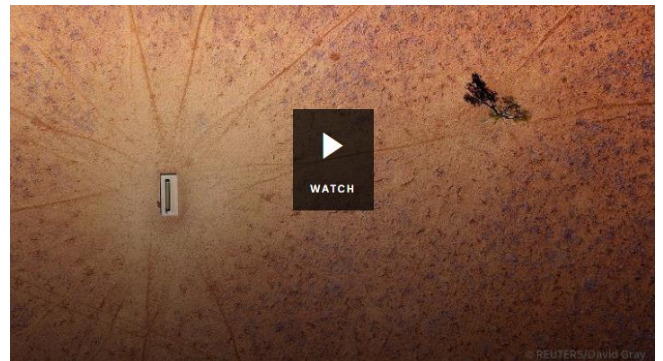
BTN has covered a number of stories about extreme weather events. The following videos will help students to learn more about extreme weather events.



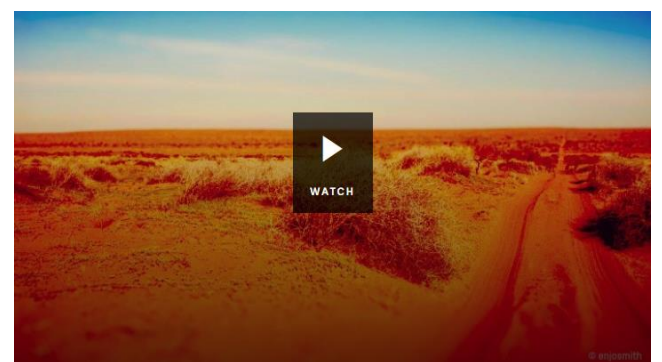
### [Wild Weather](#)



### [Cyclones](#)



### [Drought Explained](#)



### [Heatwaves](#)

## Useful Websites

BTN Wild Weather

<http://www.abc.net.au/btn/classroom/wild-weather/10536036>

BTN Heatwaves

<http://www.abc.net.au/btn/classroom/heatwaves/10521882>

BTN – Drought Explained

<http://www.abc.net.au/btn/classroom/drought-explained/10488726>

BTN - Summer Floods

<http://www.abc.net.au/btn/classroom/summer-flood/10533148>

BTN – Cyclones

<http://www.abc.net.au/btn/classroom/cyclones/10542532>

ABC News – What you need to know about droughts: Why they happen and how they are defined

<https://www.abc.net.au/news/2018-08-01/what-you-need-to-know-about-droughts/10051956>

NASA – What's the difference between weather and climate?

[https://www.nasa.gov/mission\\_pages/noaa-n/climate/climate\\_weather.html](https://www.nasa.gov/mission_pages/noaa-n/climate/climate_weather.html)

BTN Newsbreak – Record Breaking Heat

<http://www.abc.net.au/btn/newsbreak/record-breaking-heat/10770226>

# Murray-Darling Warning

## Focus Questions

1. Where is Menindee? Find using Google Maps.
2. Which states does the Murray-Darling river system span?
3. Low water levels in parts of the Darling River have caused an outbreak of \_\_\_\_\_.
4. What does the Government say has caused millions of fish in the Darling River to die?
5. About how much of Australia's food supply comes from farms in the Murray-Darling Basin?
  - a. 1 quarter
  - b. 1 third
  - c. 1 half
6. What is the role of the Murray-Darling Basin Authority?
7. Why was there a big investigation into the Murray-Darling Basin Plan?
8. What is being done to help Murray cod near Menindee?
9. Name three facts you learnt watching the BTN story.
10. How did this story make you feel? Discuss in pairs.

## Activity

### Learning about the Murray-Darling river system

Before watching the BTN *Murray-Darling Warning* story, hold a class discussion asking the following questions:

- What do you know about the Murray-Darling river system?
- What words would you use to describe the Murray-Darling river system?
- Why is the Murray-Darling river system important?



After watching the BTN *Murray-Darling Warning* story, discuss with students what they learnt about the Murray-Darling river system. Ask students to respond to one or more of the following:

- Who do you think depends on the Murray-Darling river system? Brainstorm and record your thoughts as a class.
- Whose responsibility is it to look after the Murray-Darling river system? Make a list.
- Why do you think BTN covered this issue?

## Key Learning

Students will investigate how changing physical conditions for fish populations in the Murray-Darling river system impacts on their growth and survival.

Students will explore the environmental characteristics of the Murray-Darling river system.

## Curriculum

### Science – Year 5

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 the physical conditions of their environment.

### Geography – Year 5

The influence of people, including Aboriginal and Torres Strait Islander Peoples, on the environmental characteristics of Australian places.

The environmental and human influences on the location and characteristics of a place and the management of spaces within them.



Students will write a personal response to the BTN *Murray-Darling Warning* story. Leave a comment on the BTN *Murray-Darling Warning* story page. Ask students to finish one or more of the following incomplete sentences:

- This story made me feel....
- This story made me wonder...
- The Murray-Darling river system is special because...
- We can protect our rivers by...

## Activity

### Scientific investigation

In December 2018 and January 2019, up to a million fish were found dead in the Darling River. The sudden and unexpected death of so many fish is called a mass fish death. There can be many reasons behind mass fish deaths but often they are caused by natural events.

In small groups, students will work together using scientific knowledge to investigate the issue. Students can use the *Investigation worksheet* (at the end of this activity) to record their findings.

Some questions for research include:

- What problem needs to be investigated?
- List reasons for the mass fish deaths in the Darling River
- Describe the impact that drought can have on the fish population in the Darling River.

Visit the MDBA website for more information on fish deaths in the Basin.

<https://www.mdba.gov.au/managing-water/drought-murray-darling-basin/fish-deaths-basin>



**Investigation: Fish deaths in the Darling River**  
In December 2018 and January 2019, up to a million fish were found dead in the Darling River. The sudden and unexpected death of so many fish is called a mass fish death. There can be many reasons behind mass fish deaths but often they are caused by natural events. Watch BTN's *Murray-Darling Warning* story to learn more about the problem and then investigate the issue.

Student name:
What problem needs to be investigated?
Can you write it as a question? Brainstorm questions that scientists may ask and solve
Explain why solving the problem is important
What are the main causes? List reasons for the mass fish deaths in the Darling River
Investigate how changing the physical conditions for fish that live in the Darling River impacts on their growth and survival. Include one or more of these words in your response (causes, risk, drought, water quality, water management)
Suggest ways that we people can use science to help solve the problem

## Activity

### Model

Make a class model or map of the Murray-Darling river system to display in your classroom. Use Google Maps to find towns (including Menindee, NSW) along the Murray-Darling river system and include on your model.

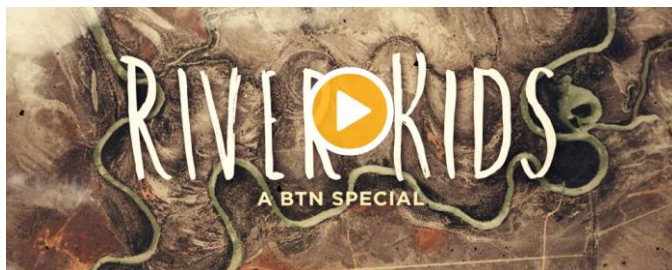
Consider including some of the following elements:

- Locks, weirs and barrages
- Lakes and reservoirs
- Iconic sites
- State borders
- Indigenous names for places
- The start and end of the river
- The Murray Mouth
- A scale

## Activity

### How do we use the Murray-Darling river system?

[BTN River Kids](#) is a documentary that looks at life along Australia's largest river system, the Murray-Darling river system. It's narrated by Tyrone, a young Ngarrindjeri boy, who introduces us to people who depend on it. The documentary highlights the importance of Australians working together to look after the Murray-Darling river system and how the river system supports people, wildlife and the economy.



Watch BTN's [River Kids documentary](#) to meet some of the kids that live along the Murray-Darling river system and find out how they depend on it for different reasons.



Class discussion:

- How has the health of the Murray-Darling river system changed since the documentary was made?
- Brainstorm a list of reasons why.
- Why is the health of the Murray-Darling river system important?

Teachers can download the supporting teacher resource for topics of inquiry and other activities.

[BTN River Kids teacher resource](#)

Students will choose one or more of the inquiry questions (listed in the teacher resource) to investigate and present their findings in an interesting way.



## Activity

### Rookie reporter

How are you connected to the Murray-Darling river system? What are your stories? Make a video and send it into BTN -

<http://www.abc.net.au/btn/>



## Useful Websites

Murray-Darling Basin Authority – Fish deaths in the Basin

<https://www.mdba.gov.au/managing-water/drought-murray-darling-basin/fish-deaths-basin>

ABC News – Thousands more fish found dead at Menindee as locals fear there will be 'none left'

<https://www.abc.net.au/news/2019-01-28/fears-of-more-menindee-fish-kill-as-photos-emerge-of-dead-bream/10755004>

BTN – River Kids

<http://www.abc.net.au/btn/classroom/river-kids/10524662>

Murray-Darling Basin Authority – Run the River: App

<https://www.mdba.gov.au/education/apps>

Murray-Darling Basin Authority – Teacher Lesson packages

<https://www.mdba.gov.au/education/lesson-packages>



## Investigation: Fish deaths in the Darling River

In December 2018 and January 2019, up to a million fish were found dead in the Darling River. The sudden and unexpected death of so many fish is called a mass fish death. There can be many reasons behind mass fish deaths but often they are caused by natural events. Watch BTN's *Murray-Darling Warning* story to learn more about the problem and then investigate the issue.

**Student name:**

**What problem needs to be investigated?**

**Can you write it as a question?**

Brainstorm questions that scientists may ask and solve

**Explain why solving the problem is important**

**What are the main causes?**

List reasons for the mass fish deaths in the Darling River

**Investigate how changing physical conditions for fish populations in the Darling River impacts on their growth and survival.**

Include one or more of these words in your response (causes, risk, drought, water quality, water management)

**Suggest ways that we people can use science to help solve the problem**



# BTN Transcript: Episode 1 – 12/2/19

Hey everyone. Amelia here kicking off a whole new year of BTN. Exciting. Alright well let's dive right into. Here's what we've got for you on today's show.

- Our new reporter Martin looks into the wild weather that's been hitting Australia and other countries.
- Rookie Reporter Shalise tells us about her special friendship with pelicans.
- And I find out what it takes to be in an orchestra.

## Fires and Floods

Reporter: Amelia Moseley

*INTRO: Don't worry, I don't actually play an instrument in that story. But, before we get to that let's talk about some serious news. Thousands of people in different parts of Australia have been affected by natural disasters. Devastating floods in Queensland and bushfires in Tasmania. We caught up with some local kids to find out what's been happening.*

Hi BTN, I'm Jonathan Davis, an 11-year-old from Townsville. I think it's safe to say that we've been experiencing some pretty crazy weather recently.

My name is Jessica, and today I'm at the evacuation centre near the school in Huonville. Hundreds of people have had to come here because their homes have been under threat from the bushfires.

In different parts of the country kids like Jonathan and Jessica have been dealing with different, but equally scary, natural disasters.

In Tasmania, bushfires have been burning for more than a month, destroying native forests and houses and forcing hundreds of people to evacuate.

JESSICA: This is Paige, she's been at the evacuation centre for a few days now. So, how have you and your family been affected by the fires?

PAIGE: Our family has been affected by the fires because our neighbours have had some of their houses burnt and they're really close to our house.

Jessica and Paige say they've seen lots of helicopters flying overhead. The choppers have dropped thousands of litres of water to try to control the fires and keep people safe.

JESSICA: So, we're hoping it's all going to be ok. All the emergency services people are working super hard to try and control these fires and help all the people who have had to unfortunately leave their homes.

Meanwhile in Far North Queensland it was water causing all the problems. Lots and lots of water.

While it is the wet season here at the moment there's been way more rain than expected. In fact, more than a year's worth fell in just one week.

JONATHAN: There's this here, lots of water because they opened up the dam. They opened up



the flood gates of the dam, so all of this water's coming in from the dam that's normally never full but it's really full right now - look at it. I once rode my bike there but I'm not riding my bike there anymore.

Jonathan's house escaped the worst of the floods, but his friend Mir had to evacuate.

JONATHAN: Their house is underwater. I could've just left it like that, but I decided to give them a call.

MIR: It was pretty scary, I guess, cause we went to check our house and how it was gonna look like and everybody was just really tense and everything.

MIR: Some parts of our roof fell down, because of the moisture. And like it fell down into our lounge and that was pretty scary.

Mir's house is one of at least two thousand homes and businesses that've been badly damaged. There was also the danger of rising floodwaters. At least two people died and lots of people had to be rescued. Animals needed some help too.

EMERGENCY SERVICES WORKER: We've had eight dogs, six cats, a python and a lizard. Oh, and a guinea pig as well, can't forget the guinea pig.

Although there was one kind of animal that didn't seem too bothered.

JONATHAN: Mir actually had a croc near his house, in his suburb, so that was pretty cool, but there's been heaps of crocs all over the place, so anything that's green and looks like a crocodile - try not to approach it, kids.

Luckily, the rain here in Far North Queensland is finally easing up, while some wet weather in Tasmania was cause for celebration.

BEC ENDERS, HUONVILLE MAYOR: It is loud and it's really heavy and it's fantastic.

In both states, schools have reopened, and people are beginning to return home. Although many are still facing months of cleaning up, rebuilding and recovery from these devastating natural disasters.

## Quiz

What's the name of the pattern of winds that brings the regular wet season to Australia's north? Is it the:

Trade winds  
Northerlies  
or a Monsoon?

It's a monsoon. The northern Australian monsoon season usually lasts from December to March and that's when you get a whole lot of rain.

## Extreme Weather

Reporter: Martin Dougan

*INTRO: Fires and floods weren't the only weather stories that were in the news over the holidays. We also had some massive heatwaves around the country. In fact, the Bureau of Meteorology says we just went through Australia's hottest January ever recorded. It was all a bit much for our new reporter Martin, who's just flown in from the UK. He went to investigate.*

Hello everyone, Martin here in Australia ready to start my brand new job on BTN. I cannot wait. Wooooo.

What is that big yellow thing in the sky? Geez, it's hot. Whoa, I've melted man. That was not part of the plan. What's going on? I just need to figure out how I can move this thing with no actual arms? I'll be back in a bit.

Australian Newsreaders: Australia has sweltered through a record-breaking heatwave. Records are tumbling this afternoon. It hit 46.2 degrees

Australia has been hitting record temperatures in some parts. Here in Adelaide it got to nearly 47 degrees a few weeks ago. In some places it was even hotter. 49.5 in a place called Port Augusta and here at Borrona Downs it was 35.6 degrees, at night, minimum.

In fact, the Bureau of Meteorology says it was Australia's hottest January ever, and as Amelia told you earlier - you guys have had some pretty nasty natural disasters.

MARTIN, REPORTER: I don't know if any of you noticed how HOT it is? I know I have. You see I'm from Scotland in the UK, that's why I talk funny. And over there right now it's snowing and it's pretty cold.

But that's nothing compared to what's been going on in the US recently. There was huge cold snap and, in some places, it got down to below minus 40.

It was so cold that people were taking photos of frozen hairdos and frozen pants. They even had to set the railway tracks on fire so that the train could still run.

What's with all this crazy weather? Is it normal? Is it climate change? Will I survive here in Australia? So many questions. And who better to answer them than the weather experts here at the Bureau of Meteorology?

MARTIN, REPORTER: I love talking about the weather, but it's been pretty unusual.

HANNAH COLHOUN, BUREAU OF METEOROLOGY: Yeah absolutely we've had all sorts - we've had floods in Northern Queensland, we've had fires in Tasmania, we've had heatwave conditions, lots of varied weather across Australia.

MARTIN, REPORTER: I've got to ask - is this usual weather patterns or has this got something to do with climate change?

HANNAH, BUREAU OF METEOROLOGY: Weather is what we feel and see every day. If you find yourself asking "What should I wear today? Or "Do I need to take an umbrella with me?" That's you thinking about the weather. Climate generally describes the typical conditions that you experience at a location or a region over a long period of time. We will always see bushfires and severe weather events, but with climate change, we are going to see more extremes and more intense weather systems.

Unusual weather events do happen, and they don't necessarily mean a change in the climate. But many experts reckon that climate change does mean that we're seeing more extreme weather events more often. That means we might have to do some serious thinking about how we'll cope in the future. That could mean building cities and transport that can cope with extreme heat or extreme cold, changing where we live, or even re-thinking the time of day that we go to work or school.

In the meantime, I need some advice about how to cope with an Aussie summer.

KID 1: Turn on your air conditioning.

KID 2: Go to the pool and keep cool.

KID 3: You need to wear a hat when it's really hot so you won't get burnt and you also need some sunscreen.

Thanks everyone, some really good tips in there and, as you can see, I've made a few changes for the heat. But for now, I think I'm going to stay in Australia. I love it here, it's brilliant.

## Ask a Reporter

If you want to know more about that story (or just about me) you're in luck. I'll be answering your questions live on Ask a Reporter next Friday. Jump onto the website to find out more.

## This Week in News

Australia's banks are in a bit of trouble at the moment. You might remember there's been a big investigation going on called a Royal Commission after claims that some of the banks had been behaving badly.

Well now the results are in and they don't look good. The Royal Commission found that some banks had been ripping off customers and lending money to people who couldn't afford to pay it back.

It recommended a whole bunch of changes to the way banks are allowed to do business and the Government says it will make sure things change.

More than 1.5 billion people around the world have been celebrating the new year, Chinese New Year that is. It's also called the Lunar New Year because it's based on a calendar that follows the phases of the moon and it's celebrated in many countries around the world.

According to the Chinese Zodiac, this year is the year of the pig which is why this little guy were invited to the celebrations. Apparently, pigs are a symbol of wealth plus they're adorable.

The who's who of the music world have celebrated the Grammys.

The little gold gramophones are amongst the most prestigious awards in music business. which is probably why this singer came dressed as one. This year's big winners included pop singer Dua Lipa who won best new artist and Kasey Musgrave's who won the award for best Album, Golden Hour.

And finally, good news for emoji lovers. Last week the organisation in charge of deciding which emojis make the cut, added 230 new little pictures.

There are more animal, more food and some new emojis to represent different types of disabilities.

## Murray-Darling Warning

Reporter: Jack Evans

*INTRO: Now you might've seen pictures like this in the news lately. That's because millions of fish were killed by an outbreak of algae in Australia's biggest river system., the Murray-Darling. Take a look.*

For farmers, fishermen and people who love the river this was an extremely distressing sight. This is the Darling river at Menindee. It's part of the Murray-Darling system., which stretches all the way from QLD, through NSW and the ACT, then down to VIC and SA.

But for a while now this part of the Darling River hasn't been flowing properly and water levels are really low. That's caused an outbreak of blue-green algae a type of bacteria that can take oxygen out of the water and that's why millions of fish have died.

The Government blames the drought for the fish deaths and says that only rain could make the situation better.

SCOTT MORRISON, PRIME MINISTER: There's a drought and this is one of the consequences of drought. There are many, and my focus on drought has not shifted one inch.

But some people disagree.

ROB MCBRIDE, MENINDEE RESIDENT: This hasn't got anything to do with the drought. This fish is a 100-year's old and it's never coming back, it's disgraceful. Absolutely.

For a long time now, there's been a lot of controversy about the way water is managed in the Murray-Darling Basin. You see, this area is really important to agriculture in Australia. Around a third of the country's food supply comes from the farms around here. A lot of them are irrigated with water taken from the river.

After a big drought at the end of last century the river was looking really sick. So, in 2007 the Federal Government created a special agency called the Murray-Darling Basin Authority. Its job was to create a plan that would make sure the water was shared fairly between farmers, right along the river system and to make sure there was enough left in to keep the rivers healthy.

But a couple of years ago there were accusations that it wasn't doing that job properly. A Four Corners investigation found that some farmers in NSW were taking water that they weren't supposed to. Some said that was having a big effect downstream and leaving some towns without enough drinking water.

Now the South Australian Government has done a big investigation called a Royal Commission into the Murray-Darling Basin Plan and the results have a lot of people worried. It found that the rivers were being mismanaged and many decisions were being made because of politics and not science. It even suggested that laws may have been broken, although the Government says nothing in the plan was illegal. But the Prime Minister says the government will look into the situation and talk to state governments and other people who have been affected.

Meanwhile authorities are trying to save some of the fish. They're going to relocate some of Murray cod near Menindee to healthier waters. But many say a lot more needs to be done and Australia needs a new plan to save the river and everyone and everything that depends on it to survive.

## Storm Girl

*Rookie Reporter: Shalise*

*INTRO: Over the break, you might have seen a movie called Storm Boy - which is about a boy who makes friends with a pelican called Mr Percival. Well, you're about to meet a real-life Storm Girl. Her name is Shalise and she's passionate about protecting pelicans. Here she is with some of her feathered friends.*

Hi BTN, I'm Shalise and this is my best mate Mr Percival. Although all pelicans tend to look similar, they all have something special about them. Mr Percival has a little black feather on the

right of neck and it stands out. He also has a shrivelled up look on his beak - its really cute. He's also really small, smaller than the other pelicans that come around here. This is our favourite spot to sit. It's nice looking out at the water, although there are lots of fish jumping out, so I think Mr Percival looks at them.

Mr Percival and I became friends when I started coming down to the lake to empty the fishing line collection bins I helped install around the lake. I get so sad whenever I see fishing line on the shore as I know the pelicans roam up and down waiting for fish and they could get tangled in it. Fishing line can be one the most harmful forms of marine debris as it is strong and tough and invisible in the ocean.

This is monofilament fishing line. This monofilament line can last for up to 600 years in our ocean. It is very dangerous because when marine life or sea birds like Mr Percival walk or swim through it they can't break through it because it so strong especially birds like Mr Percival because they have blunt beaks.

I contacted an organisation that sent me a fishing line disposal bin for free which I installed near the water. I started documenting how much fishing line was being collected and I put all of that into a big presentation and I sent that off to my local council. They approved the two new bins. As soon as they were installed I was finding 4 - 5 handfuls of fishing line and soon, more got installed.

I collect the fishing line every week, so as you can imagine I've collected heaps of fishing line and it's so cool cause you can turn something that's destined for landfill into something for the community.

These are the fishing line bracelets that I made out of discarded fishing line which I found on the shore. I have a catch phrase for the bracelets which is wear this fishing line around your arm to keep it out of the ocean and the marine life safe from harm. As you can see, all of the bracelets have a little charm. Some of them are whale tails, turtles, dolphins, and they represent the life and importance of that marine animal.

I believe if you have a passion or want to pursue something it really doesn't matter how old you are. Kids should have their voice heard.

## Did You Know?

Did you know that the pouch under a pelican's bill can hold more than 11 litres of water? They mainly use their pouch feeding but on hot days they swing it around to cool themselves down.

## Sport

Matildas superstar Sam Kerr has scored a stunning hat-trick to send Perth Glory into the W-League grand final.

The Glory came from behind to defeat Melbourne Victory 4-2 in extra time. In the final they'll be facing Sydney FC who beat Brisbane 2-1 on the weekend.

Basketball star Ben Simmons has become the first Australian player to be selected as an NBA All-Star. That's when the best players in the NBA are chosen to play against each other in a special game.

NBA superstars LeBron James and Giannis Antetokounmpo took turns selecting their All Stars teams from a pool of standout players. But when Giannis decided to pick Simmons, LeBron wasn't too happy



LEBRON: He took my choice.

Fortunately, LeBron managed to convince Giannis to trade Simmons for Russell Westbrook.

---

And check out these cool moves from the wind games in Spain. It's kind of like sky diving except you don't have to jump out of a plane which is great if you are scared of heights.

This year, 14-year-old Kaleigh Wittenburg took out the gold in the individual freestyle.

## BTN Newsbreak Promo

Hey guys, it's Ruby here. If a week is too long to wait for your next dose of BTN – good news. We're actually on YouTube every weekday with a special new show. We cover the big, fun, and amazing stories of the day. So, make sure you subscribe and hit the bell so you get those notifications every time a new video drops. If you're not on YouTube, don't stress. You can still catch it on our website or on the ABC Me app.

## Symphony School

Reporter: Amelia Moseley

*INTRO: Alright BTN fans time for a bit of culture. While a lot of you were relaxing and enjoying some time off school, a select group of Australia's best young musicians were in Adelaide, hard at work, practising for hours a day. Check it out.*

Move over, Mozart and back off, Beethoven, these students are hitting all the right notes. You're looking at some of the best young musicians in the country. Yup, the best. They've all been picked to take part in this super intense, two week band camp run by the Australian Youth Orchestra.

LEANNE, CONCERTMASTER: I got into music because when I was little I did lots of hobbies, I was into sport, I did dancing for a while and music was just another thing on the side, but as I got older I really appreciated music more and more and I grew a lot more serious about it and I'm very passionate and I decided that I'd like to do that for the rest of my life.

These musicians in the making have given up their school holidays to spend six hours a day practising and performing and learning the different roles in an orchestra.

If you're not familiar with the inner workings of an orchestra, then take a look at this. Different instruments are grouped together and work together like violins, bigger string instruments, woodwind instruments and percussion. The lead violinist or concertmaster sits here. They're the second in charge, helping to lead the rest of the orchestra. In this case, that's Leanne.

LEANNE, CONCERTMASTER: Being in the concertmaster seat, it does come with a lot of responsibility and you have to know your part very well and you have to be a solid player.

But let's not forget the all-important conductor. They're not just waving their hands about; they have to know the music really well, set the tempo and tell sections when to play. It's a tough job that some of these musos are here to learn.

While this music camp is obviously serious business. It's also about learning to work as a team and making new friends.

LEANNE, CONCERTMASTER: I think just really enjoying making music with everyone and definitely meeting new people and it's something really special that you won't experience ever again in your life.

And if you're interested in getting into music, the advice is, just go for it.

LEANNE, CONCERTMASTER: Pick up an instrument, even if you don't think you'll be doing it for the rest of your life, it's always good to have something on the side. I think music is for everyone and everyone can get something out of music.

## Closer

Eh, I don't think it's working properly. Well that's it for today but we'll be back as usual next week with all the news you need to know. In the meantime, there are heaps of stories to look at on the website. And don't forget to check out our jazzy new newsbreaks every day on ABC Me and online. Speaking of jazzy, I better keep practising.