

Focus Questions

COVID Update

- 1. Discuss the BTN COVID Update story as a class.
- 2. What is the name of the COVID variant that has been detected in NSW?
- 3. What is a COVID variant?
- 4. When did parts of NSW go into lockdown?
- 5. What other states have had to go into lockdown?
- 6. How long will the lockdown in NSW last?
- 7. What restrictions are in place in Victoria?
- 8. How are the restrictions affecting Ben in Melbourne?
- 9. Complete the following sentence. The government is encouraging people to get _____.
- 10. What do you understand more clearly since watching the BTN story?

Holiday Restrictions

- 1. Discuss the BTN story in pairs.
- 2. How do the kids in the story feel?
- 3. How are the kids keeping busy during lockdown?
- 4. What are the kids looking forward to once they're out of lockdown?
- 5. Have you been affected by the recent restrictions around Australia?

American Heatwave

- 1. Briefly summarise the BTN story.
- 2. How hot did it get in Death Valley in California?
 - a. 45 degrees
 - b. 54 degrees
 - c. 65 degrees
- 3. Complete the following sentence. Heatwaves start with changes to the temperature on the surface of the _____.
- 4. What is a heat dome?
- 5. How has the US heatwave affected people and places?
- 6. What other extreme event is occurring in the US?
- 7. What other countries are experiencing record temperatures?
- 8. What are scientists saying about these intense natural weather events?

EPISODE 19

20th July 2021

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.

- 9. Think of three questions you have about the heatwaves. Share them with the class.
- 10. What did you learn watching this story?

Check out the American Heatwave resource on the Teachers page.

2020 Tokyo Olympics

- 1. Retell the BTN story using your own words.
- 2. Why are the games called the 2020 Tokyo Olympics not the 2021 Tokyo Olympics?
- 3. How many athletes are participating in the Tokyo Olympics?
- 4. How many different countries are participating in the Tokyo Olympics?
- 5. How did Fiji's national team get to Tokyo?
- 6. What route did sprinter Shelly-Ann Fraser-Pryce have to take to get to Tokyo? Plot on a world map.
- 7. What did a lot of the Aussie athletes have to do before going to Tokyo?
- 8. What percent of athletes will have been vaccinated before the games begin?
- 9. No fans will be allowed in stadiums. True or false?
- 10. What questions do you have about this story?

Check out the 2020 Tokyo Olympics resource on the Teachers page.

Young Balloonist

- 1. Briefly summarise the Young Balloonist story.
- 2. How many hot air balloon flights has Hamish done?
 - a. 2
 - b. 12
 - c. 120
- 3. Name one place Hamish has flown over in a hot air balloon. Find on a map.
- 4. How old was Hamish when he first got into hot air balloons?
- 5. How old was Hamish when he went on his first hot air balloon flight?
- 6. Describe some of the jobs that Hamish does being a part of the crew.
- 7. What age can Hamish get a junior pilot license?
- 8. What age can Hamish get a commercial pilot license?
- 9. What words would you use to describe hot air balloons?
- 10. What did you like about this story?



American Heatwave

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. Briefly summarise the BTN story.
- 2. How hot did it get in Death Valley in California?
- 3. Complete the following sentence. Heatwaves start with changes to the temperature on the surface of the _____.
- 4. What is a heat dome?
- 5. How has the US heatwave affected people and places?
- 6. What other extreme event is occurring in the US?
- 7. What other countries are experiencing record temperatures?
- 8. What are scientists saying about these intense natural weather events?
- 9. Think of three questions you have about the heatwaves. Share them with the class.
- 10. What did you learn watching this story?

Activity: Class Discussion

After watching the BTN American Heatwave story, facilitate a class discussion, using the following questions to get the discussion started. Use a mind map to record your student's responses.

- What words would you use to describe a heatwave? Use a mind map to record your responses.
- Why causes heatwaves?
- What impact do heatwaves have on people and places?
- How can we protect ourselves from heatwaves?
- Have you ever experienced a heatwave? Describe how it affected you.
- What do you want to learn about heatwaves?



EPISODE 19 20th July 2021

KEY LEARNING

Students will investigate what heatwaves are, what causes them and how they impact people and places.

CURRICULUM

Geography – Year 5

The impact of bushfires or floods on environments and communities, and how people can respond.

Geography – Year 7

Evaluate sources for their reliability and usefulness and select, collect and record relevant geographical data and information, using ethical protocols, from appropriate primary and secondary sources.

Interpret geographical data and other information using qualitative and quantitative methods, and digital and spatial technologies as appropriate, to identify and propose explanations for spatial distributions, patterns and trends, and infer relationships.

Science – Year 6

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

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

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

Activity: Mind Map

Ask students to think of words they associate with the word HEATWAVE. Record students' ideas on a mind map with the word HEATWAVE in the middle. Below are some suggested words.

HEATWAVE	EXTREME WEATHER	METEOROLOGIST
AIR PRESSURE	CLIMATE CHANGE	TEMPERATURE

Ask students to clarify their understanding of the key words by writing down what they think the word means. Swap definitions with a partner and ask them to add to or change the definition. Check them using a dictionary or other source.

Activity: Research project

After watching and discussing the BTN American Heatwave 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?

Students will develop their own question/s to research or select one of the questions below.

- What is a heatwave? Use scientific words to help explain this extreme weather event.
- How are heatwaves in Australia and other parts of the world similar or different?
- How do experts predict when a heatwave is going to occur?
- How are heatwaves dangerous?
- How are heatwaves measured?
- How can we prepare for heatwave conditions and reduce the impact of heat stress? Create a public awareness campaign that targets people living in heatwave prone areas.
- Which areas in Australia do you think would be most at risk of experiencing a heatwave? Highlight on a map.

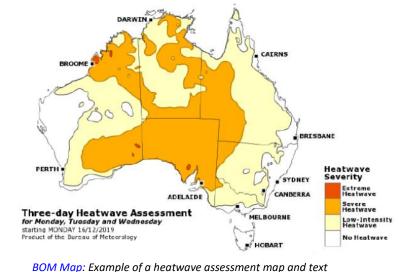
Possible ways for students to present their research include:

- A 'Did You Know' Fact sheet
- Oral Presentation
- <u>Prezi</u> presentation
- Create an infographic using <u>Canva</u>

Activity: Act like a meteorologist

Students will start to think like a meteorologist and analyse the map below, which was produced by the <u>Bureau of Meteorology</u>. Students will then respond to the following questions:

- What features do you see on this map? Make a list.
- What does the map tell us?
- What does it measure?
- What does the colour coding tell us?
- What area does it cover?
- What period of time does this map cover?
- What is the purpose of this map?

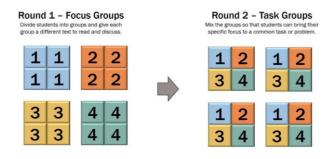


Further investigation

- What is a heatwave? How does the Bureau of Meteorology define a heatwave?
- How is a heatwave measured? Who measures heatwaves? What instruments are used to measure heatwaves?
- How is a heatwave assessment map different to a heatwave forecast map? Explain using your own words.

Activity: Jigsaw learning activity

In this activity students will work cooperatively to learn more about extreme weather events. Each group will become experts and then share what they have learnt with other students.



Form groups

Divide the class into 5 x Focus Groups (or more depending on your class size). Each Focus Group will be assigned a different type of extreme weather event to investigate and become experts (for example heatwaves, bushfires, floods, drought and cyclones). Each group will need to decide how they will collect and communicate the information they find during their research. For example, students can create a model, a short video or an infographic.

Research

Each Focus Group will respond to the following questions to become experts:

- Describe what the extreme weather event is using scientific words. Use illustrations to help with your explanation.
- What hazards can this extreme weather event cause?

- Identify ways to protect the people and places experiencing this extreme weather event.
- Share Mix the Focus Groups to form Task Groups (Tasks Groups include one student from each of the Focus Groups) to share the information they have collected. Students will share the information they have collected and learn from one another.
- **Reflect** Students will reflect on the activity by responding to one or more of the following questions:
 - What did you enjoy about this investigation?
 - What did you find surprising?

Activity: BTN stories

These BTN stories look at the impact extreme weather has on people and the environment. After watching any one of the BTN videos ask students to respond to the discussion questions (to find the teacher resources go to the related BTN Classroom Episode and download the Episode Package).



Extreme Weather



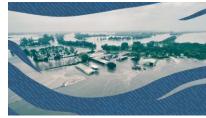
Mt Resilience AR App



Weather Science



Heatwaves



NSW Floods



Fires & Floods

Useful Websites

- <u>Heatwaves</u> BTN
- Heatwave Knowledge Centre Bureau of Meteorology
- <u>Why heatwaves happen and where they come from</u> ABC News
- How hot is your school? ABC Education
- What is El Nino? BTN
- <u>How to survive a heatwave</u> ABC Education
- <u>Weather Science</u> BTN



Tokyo Olympics

Focus Questions

- 1. Retell the BTN story using your own words.
- 2. Why are the games called the 2020 Tokyo Olympics not the 2021 Tokyo Olympics?
- 3. How many athletes are participating in the Tokyo Olympics?
- 4. How many different countries are participating in the Tokyo Olympics?
- 5. How did Fiji's national team get to Tokyo?
- 6. What route did sprinter Shelly-Ann Fraser-Pryce have to take to get to Tokyo? Plot on a world map.
- 7. What did a lot of the Aussie athletes have to do before going to Tokyo?
- 8. What percent of athletes will have been vaccinated before the games begin?
- 9. No fans will be allowed in stadiums. True or false?
- 10. What questions do you have about this story?

Activity: Class Discussion

After watching the BTN story as a class, respond to the following questions:

- What did you SEE in this video?
- What do you THINK about what you saw in this video?
- What does this video make your WONDER?
- What did you LEARN from this story?
- What do you know about the Olympic Games?
- What is Japan doing to make the 2020 Olympic Games COVID safe?

Activity: Timeline of the Olympic Games

Students will research the history of the Olympic Games and create a timeline including important dates in the history of both the ancient and modern Olympic Games. List an interesting fact for each significant event on the timeline. Some examples of significant dates are:

- 776 BCE First Olympics held
- 394 AD Olympics were banned

EPISODE 19 20th July 2021

KEY LEARNING

Students will learn more about the history of the Olympic Games. They will also research an athlete competing in Tokyo and learn more about the host country, Japan.

CURRICULUM

HASS – Year 5 & 6 Sequence information about people's lives, events, developments and phenomena using a variety of methods including timelines.

HASS – Year 7

Sequence information about events, developments, periods and phenomena using a variety of discipline-appropriate formats and conventions including chronological frameworks that use dating conventions.

Health and PE – Year 5 & 6

Participate positively in groups and teams by encouraging others and negotiating roles and responsibilities.

Health and PE – Year 7 & 8

Practise and apply personal and social skills when undertaking a range of roles in physical activities.

- 1894 International Olympic Committee founded
- 1896 First modern Olympics held
- 1916 Olympics cancelled due to World War One

Activity: Olympic Games Research

After watching and discussing the BTN Tokyo Olympics 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?

Students will develop their own question/s to research or select one or more of the questions below.

- When and why did the ancient Olympics begin? Who was allowed to compete and what events did athletes compete in?
- How were the ancient Olympics different to the modern Olympics? What are the similarities?
- Why are the Olympic Games held every 4 years?
- How do new sports get added to the Olympic Games? Choose one new sport that will be added during the Tokyo 2020 Olympic Games and explain why it was added.
- What are the symbols of the Olympic Games? (Olympic Rings, Olympic Torch, Flag, Olympic Motto, the Medals). Choose a symbol to research in more detail. Who created the symbol and what does it mean or represent?
- Australia has a <u>new Olympians' oath</u>. What is the purpose of the oath? Why was the oath changed? Who contributed to the new oath?

Activity: Flag Bearers

Swimmer Cate Campbell and Basketballer Patty Mills have been chosen as the flag bearers for the Australian Olympic team.

- Describe the role of an Olympic Flag bearer. What responsibilities does the flag bearer have?
- How are the flag bearers chosen?
- What qualities do they look for in a flag bearer?
- Why do you think Cate and Patty were chosen as flag bearers?
- What is significant about the announcement?

Learn more about Cate and Patty and how they felt about being chosen as flag bearers.

Australian Olympic Team Flag Bearers Announced – AOC Patty Mills, Cate Campbell named Australia's Tokyo Olympics flag-bearers – ABC News





Activity: Host City Tokyo

The 2020 Olympic Games are being held in Tokyo, Japan. Students will research and develop a profile of Tokyo and gain a deeper understanding of the city. Working in pairs, ask students to brainstorm what they know about Tokyo and record their responses. Using the `who, what, why, when, where and how' framework, ask students to write questions that they would like to find the answers to. Students share their questions with the rest of the class. Discuss how the students could find answers to the questions they generate.

Topics to include in a profile of Tokyo:

- Geography physical features, climate, environment and population.
- People culture, lifestyle, health, religion and beliefs.
- Economy wealth and poverty, education, work and industries.
- Japan's relationship with Australia trade, migration, tourism, education and cultural influences.
- Facts about Tokyo.

Discuss with students how they are going to present their profile of Tokyo. Possibilities include:

- Creating a poster using <u>Glogster</u>.
- <u>Create a postcard</u> using Canva to share some of the things you have learnt about Tokyo.
- A short oral presentation

Further Investigation

Compare Tokyo to the capital city where you live (or the closest to you).

Activity: Australian Athlete Biography

Students will choose an Australian Olympic Games athlete and write a biography about them. Find out more about the Australian Olympic team <u>here</u>. Ask students to think about the sort of information included in a biography. What does a biography tell us about a person? Students will find and record information about the person they have chosen. Students can use the biography template at the end of this activity.

Some possible areas of research include:

- Where and when was the person born?
- Describe their family life growing up.
- What are some of their achievements? Choose one to explore in more detail.
- What are some of the challenges they have faced?

Once students have completed their research ask them to present their findings in an interesting way.

- Give a presentation on the individual's achievements.
- Design a poster.
- Make a "Did you know?" for other students.
- Write a letter thanking them for their achievements and how it has changed Australia.

Activity: Olympic Sports

Students will find out more about an Olympic Games sport. It can be their favourite Olympic sport or one they would like to learn more about. The <u>list of Olympic Summer sports</u> is on the AOC website. Students can use the following questions to help guide their research.

- What is your favourite Olympic Games sport? Why?
- Give a brief summary of the sport.
- Research the history of the sport at the Olympic Games.
- What equipment is needed to play the sport?
- Who won gold in the sport at the last Olympic Games? Imagine you could interview the sportsperson. Write a list of questions to ask the person.
- Write instructions explaining how to play the sport. Play the sport with your classmates using your instructions.

Activity: Olympics Quiz

1. How many times has Australia hosted the Olympics?

А	1
В	2
С	3

2. Which Australian city has bid to host the 2032 Olympic Games?

А	Melbourne
В	Adelaide
С	Brisbane

3. Which country hosted the first modern Olympics?

A Italy	
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- B Greece
- C United Kingdom
- 4. Which Australian Olympic athlete has won the most Gold medals at a Games?

А	Ian Thorpe
В	Dawn Fraser
С	Cathy Freeman

- 5. What do the five Olympic rings represent?
 - A The five original sports that made up the first Olympics
 - B The five Olympic values
 - C The five parts of the world Africa, Asia, Australia, the Americas and Europe
- 6. Which animal was the first Olympic mascot?

A	A dachshund
В	An Echidna
С	A bear

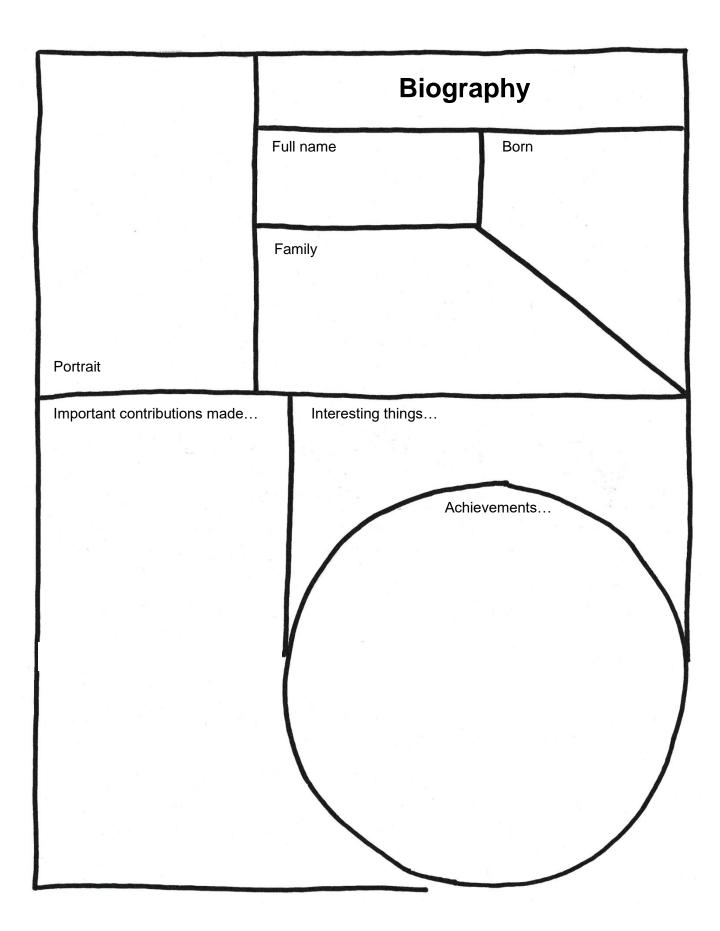
7. How old was the youngest Olympian to ever compete?

А	10
В	12
С	14

Answers: 1 B, 2 C, 3 B, 4 A, 5 C, 6 A, 7 A

Useful Websites

- <u>Olympic Doubts</u> BTN
- <u>Olympic History</u> BTN
- <u>History and origin of the Games</u> International Olympic Committee
- <u>History of the Olympics</u> National Geo Kids
- Australian Olympic Team





BTN Transcript: Episode 19-20/7/2021

Hey there, Amelia Moseley here and we're back with a whole new term of BTN. Let's have a look at what's coming up. We'll give you an update on the COVID situation and find out how you guys spent your holidays, get a preview of the biggest thing on TV this week, apart from BTN that is, and get ready to test your knowledge with our big school holiday news quiz.

COVID Update

Reporter: Jack Evans

INTRO: First up, let's talk about the big story that's affecting all of us at the moment. You know it. The pandemic. We've got cities in lockdown, borders closed and home learning again. Here's Jack.

After a bit of a break, it's time to say see ya holidays and hello school again, and for most of the country that means this. But for a lot of kids in New South Wales, it means this. Oh, wait ok, it also means that for kids in Victoria too.

KID 1: I have a great teacher so I think they'll make home schooling quite fun.

KID 2: Yeah, it's a bit harder cause I'm always looking around and like "Oh I need to get food, I'm hungry".

KID 3: I'm going to miss that we don't get to play with our friends.

KID 4: Feels pretty good, yeah I'm quite comfortable with the home schooling and staying at home and being able to sleep in a little bit.

If you're wondering how we got here let's do a quick rewind. On June 16th a positive case of the COVID-19 Delta variant popped up in New South Wales. If you remember from last term COVID variants have something to do with sock puppets and a cloning machine. Wait that's not right. It's just a version of the virus that's slightly different and this one's easier to catch and easier to spread. So, a whole bunch of restrictions came into place. States and territories started to shut their borders to New South Wales and eventually it was time to lockdown.

Yep on June 26th Greater Sydney and the Blue Mountains, Central Coast, Wollongong and Shellharbour went into a, what was meant to be, two week lockdown. A few cases also popped up in Western Australia, the Northern Territory and Queensland and there were lockdowns in Perth and Darwin and tighter restrictions just about everywhere. And while those lockdowns ended, in Sydney the COVID numbers kept going up and now it's looking like the lockdown might last until the end of the month. Oh, but it doesn't end there. I might let our Rookie Ben fill you in.

BEN: Hey guys. As you can see, I'm in my Oodie and my pyjamas so you know what time it is, it's lockdown time. So, from midnight Thursday Melbourne's going into lockdown number 28 - 64? I don't know anymore. There are curfews, you can only go out for 5 reasons, you have to wear masks, so many masks, you have to go back into online learning. And we were just about to do a dance contest and then it got cancelled. We're all so sad.

I'm sorry Ben, but experts say it's really important to follow restrictions and do all those things we've gotten

so good at doing. The government is also encouraging as many people as possible to get vaccinated and it's providing emergency payments to help people who can't work. Yeah, I know it's not the welcome back we had hoped for. But if we keep on following the rules, hopefully it won't be too long until we're back to this and not this.

Holiday Restrictions

Rookie Reporters

INTRO: Of course, COVID-19 meant the holidays were a bit average for a lot of Aussies. Over the break we asked some kids around Australia to check in with us and let us know how they were coping with it all. Check it out.

SAM: The first time we're going through lockdown my jaw dropped, it was so crazy. When we went grocery shopping, the whole entire store was full of lines.

OLIVIA: Adults like my parents are in full lockdown. They have to wear a mask wherever they go.

VINCENT: How I feel about the lockdown is that I'm very sad because the lockdown made me cancel my holiday plans.

JENNA: I feel kind of annoyed the lockdown had to happen especially on our holidays because I was meant to see my friend and I miss out on dance as well.

NICHOLAS: I'm not feeling that good because I don't get to go to soccer training during the week and I don't get to see my friends.

HARMONY: I feel stuck and trapped because we have to stay inside and we can't go and do the things that we're used to doing which is sad.

RUBY: To keep busy I've been playing video games, playing outside with my brother, playing board games, reading and taking my dog out for a walk.

VINCENT: What I do to have fun is I usually go on social media to talk to my friends, if that doesn't work then I read a book.

NICHOLAS: I'm watching the soccer, I'm kicking the ball outside in the backyard and playing video games with my friends.

JENNA: I've been doing lots of things like jumping on the trampoline, cooking, organising my desk, dancing and I know it's given me a good excuse to watch TV as well.

ZALI: We've been going for bike rides and playing with toys and making up games.

SAM: Well, I've got a lot of siblings, so we usually like to play card games with them, I've got pets like my cat and my dog to play with and I also have some DigiTech time as well.

ZOE: I'm kind of getting used to it. In one way it's really relaxing because I feel like I've got lots of free time to read and play games and spend time with my family, but in another way I'm kind of getting bored because I've got nothing else to do.

NICHOLAS: I'm so happy that we're out of lockdown. The first thing I'm going to do out of lockdown is go out with my friends.

OLIVIA: I feel great because I get to go to my friend's house and play some perfume out of flowers.

SAM: Well, we've already done our first thing which was going to Litchfield National Park.

ZOE: We're out of lockdown, and I'm really hoping the rest of Australia will be out of lockdown soon too.

CHLOE: All after school activities have been cancelled and I can't do much fun stuff anymore.

HARMONY: It was my birthday during lockdown, but we were going to go to Luna Park but unfortunately because of lockdown extending we couldn't. Instead of going to Luna Park we stayed home, and I enjoyed my family time.

HARMONY: I feel kind of sad because I don't get to see my friends and my teachers, but I do understand that Gladys is just trying to keep us safe.

NICHOLAS: Hi everyone in New South Wales, we're thinking of you. We know it's not easy, be patient and be patient with your parents.

RUBY: Stay safe, stay home.

ZOE: I'm hoping you guys get out of lockdown soon and in the meantime stay safe and take care of each other.

SAM: Just remember, the lockdown the more time for lockdown the more time you can bond with your family.

OLIVIA: Stay safe it won't be long until lockdown is finished.

HARMONY: Do all the things you can with your family and be grateful that you're with them because if lockdown wasn't a thing, then you wouldn't be with your family the whole week and don't be afraid if things get worse. Just stay positive.

News Quiz

Can you name this world leader? It's Angela Merkel, the Chancellor of Germany. She's been visiting parts of her country that were badly affected by last week's devastating floods. More than 180 people were killed, and many buildings were destroyed after parts of Western Europe got a month's worth of rain in just a few days. The flooding also affected parts of Belgium, the Netherlands and Austria.

Which World Heritage listed Aussie landmark could soon be put on UNESCO's "in danger" list. It's the Great Barrier Reef. The UN's Educational, Scientific and Cultural Organization has recommended downgrading it's world heritage status to "in danger" because of coral bleaching. Some are worried that could affect tourism. And the government's argued against it, saying the reef is the best managed in the world. It even showed it off to some overseas ambassadors last week. We'll tell you more about what happened in next week's show.

The Australian military is keeping an eye on this war ship which is sitting just outside of Australian waters. What country is it from? The flag might give you a hint. It's from China. It's been sent to keep its eyes on Operation Talisman Sabre, a regular war games or military exercise that Australia runs with the US. While the ship hasn't been invited the government says it's not at all unexpected. Which of these official Aussie flags just turned 50? It was the Aboriginal flag. It was designed by artist Harold Thomas in 1971 and first flew on the 9th of July.

Ash Barty has given Aussies something to celebrate by winning which major tennis tournament? The US Open, the Australian Open or Wimbledon? It was Wimbledon. She's the first Aussie woman to win it since Evonne Goolagong Cawley in 1980. Fellow Aussie legend Dylan Alcott took out the men's quad singles trophy.

These two billionaires have both been working on getting tourists and themselves into space. There's Richard Branson, the head of Virgin Galactic and Jeff Bezos, the head of Blue Origin. Which one of them made it there first? It was this guy, Richard Branson. Last Sunday his space plane took a 15 minute trip that reached about 90 kays above the Earth.

RICHARD BRANSON: To all you kids down there, I was once a child with a dream looking up to the stars. Now I'm an adult in a spaceship.

This guy, Jeff Bezos, will be aiming even higher with his 100 kay high space flight this week.

American Heatwave

Reporter: Amelia Moseley

INTRO: Next up to North America where people are sweltering through a record-breaking heatwave. Parts of the US and Canada that normally have temperatures in the low 20s at this time of year have been soaring into the high 40s and some scientists reckon it's a taste of what life could be like if the world doesn't take action on climate change. Take a look.

Melting ice creams, fire truck sprinklers, squirrels licking ice blocks? Clearly this is one seriously hot heatwave.

PARK VISITOR, JOSHUA TREE, CALIFORNIA: It's the hottest place on earth. Like it's hot. It's never been hotter.

AMERICAN RESIDENT, PALM SPRINGS, CALIFORNIA: I think the best way to describe it is that moment when you open the oven and that gust of heat hits you in the face.

HANNAH SCHWALBE, JOSHUA TREE PARK RANGER, CALIFORNIA: It's going to be about 110 degrees here, where we are today.

110 degrees. Oh wait, no that's Fahrenheit. Still, even in Celsius, that's a spicy 42 and that's not even as hot as it's got. Over the past month or so, some towns and cities in the US and Canada have been hitting record-breaking temperatures in the high-40s. Death Valley in California got to a sizzling 54 degrees, and it recorded the hottest 24 hours on the planet.

So, what's going on? Well, weather experts say it's all to do with something called a heat dome. It all started when the temperature on the surface of the ocean warmed up. Hot air rises into the atmosphere, but a high pressure system pushed the air downwards and the competing forces meant the heat had nowhere to go. Instead, it got trapped forming a dome shape where the heat just circulates around, and the high pressure system means light winds and not many clouds, so the hot summer sun heats up the air even more. Heatwaves can be dangerous, even deadly, especially when people aren't prepared. In some US cities the streets have started cracking and cables are literally melting.

AMERICAN RESIDENT: I mean it's already bad enough not having air conditioning, but to have no power at

all. It's dangerous.

Some schools have had to close, and shops are running out of essentials.

AMERICA RESIDENT: All the stores are sold out of ice cream right now too, which is crazy. So apparently, we all have the same idea here.

Then there are the fires that've burnt through thousands of square kays of national forest and destroyed towns. It's not just North America feeling the heat. Russia and parts of Europe are also experiencing record temperatures and scientists say sadly that's not unexpected.

BRIAN TIMMER, UNIVERSITY OF VICTORIA RESEARCHER: It really just goes to show that climate change is happening now, and we've already seen the effects of it.

While heatwaves are a natural weather event, scientists say really intense ones like this should only happen once in a thousand years.

NIKOS CHRISTIDIS, MET OFFICE SENIOR SCIENTIST: Our research suggests that this kind of extreme June temperatures in the region that was affected would have been almost impossible without the effect of human influence on the climate.

They say it should be a warning to governments around the planet that they need to do more to address climate change. While millions of people in North America wait for the weather to cool down, special "cooling centres" have been set up to keep people safe, and neighbours are looking out for each other.

AMERICAN RESIDENT: It is super-hot here so my partner and I we set up a shade that we have to help cool off our neighbourhood and keep everybody safe.

Oh, and don't worry, they haven't forgotten their four-legged friends, of all kinds. Even if they weren't exactly invited to the pool party.

Quiz

The hottest temperature ever recorded in Australia was 50.7 degrees. Which state was it in? Western Australia, South Australia, or the Northern Territory. It was in Oodnadatta in South Australia back in 1960.

2020 Tokyo Olympics

Reporter: Jack Evans

INTRO: After a year of controversy, disappointment, and some very complicated planning the 2020 Olympics are finally about to start. And, for better or worse, it's set to be a games like no other. Here's Jack.

Stuck inside? Longing for the days of sport and overseas travel? Wish you had something exciting to watch? Well, you're in luck.

JACK: Because BTN is back for term 3.

No, I was talking about the 2020 Tokyo Olympic Games.

JACK: Oh, but they're not back for term 3?

Yes, but they're about to start on Friday.

JACK: Oh, okay. Well that too then.

KID: Hmm, okay.

Yes, after what feels like, well, forever the world is officially in Olympic mode. While a lot of people wanted the games to be cancelled, organisers of the Tokyo Olympics have been determined to forge ahead. Which means they've had a year to put together what could be the most complicated games in history.

We're talking 11,000 athletes flying in from more than 200 countries. Which, with heaps of airlines not operating, wasn't particularly easy. For example, Fiji's national team had to be dropped to Tokyo on a cargo plane that mostly carried fish. And the fastest woman in the world, Shelly-Ann Fraser-Pryce, had to fly from Kingston to Miami and then London and then Tokyo. A lot of the 474 Aussie athletes competing in the games spent 3 weeks in Queensland before touching down in Tokyo, while some got there a bit earlier.

RACHEL LACK, SOFTBALLER: So, we've been here since the beginning of June. Because obviously, with COVID, most of our squads either, you know, spread out across the country. So you know, and obviously, with all the snap lockdowns, and all the stuff that we face in Australia, it's quite hard to get everyone together and get everyone together for a long amount of time.

Despite the difficulties Rachel Lack is excited to take part in her first Olympic Games.

RACHEL LACK, SOFTBALLER: It's been a dream for years to get here and I just want to soak up as much of the atmosphere and like wearing the Australian uniform as much as I can.

When the athletes aren't competing they have to stay at the Olympic Village where they'll have some pretty strict rules to avoid an outbreak.

MASA TAKAYA, OLYMPIC ORGANISER: We have been really working hard to establish a robust response plan in case we have such cases.

RACHEL LACK, SOFTBALLER: Even going down to get breakfast and our meals and stuff, we mask up, you know, we're socially distanced, we're separated by plastic, like clear perspex at dinner. So, we're like, this is weird, like, can't hear anyone.

While the athletes don't have to be vaccinated to compete, organisers estimate around 80% of people within the village will have got the jab before the games begin. As for crowds, well, yep you guessed it. With Japan in the middle of a fourth wave of COVID Olympic organisers decided that no fans will be allowed in the stadiums, oh, well except for these guys.

Organisers say they have done everything they can to make the event as safe as possible. But there's already been a couple of COVID cases in the athlete's village and many still think the games shouldn't be going ahead. With the opening ceremony now only days away the world's going to be watching to see how these very different Olympic Games play out.

Ask a Reporter

If you have a question about the Olympics you can ask me live on Friday during Ask a Reporter. Just head to our website for all the details.

AIS Special Promo

Now if you want to meet some Olympians and find out how Australia's best athletes become the best, then check out a special episode we put together during the holidays from the Australian Institute of Sport. We'll take you inside the AIS and show you some of the hard work that goes into training sporting superstars. You can even see me getting put to the test. Head to our website to check out that special episode from Canberra. Now let's see what else is making news in sport.

Sport

Speaking of the Olympics Australia's just announced its flag bearers, basketballer Patty Mills and swimmer Cate Campbell. Heading to her fourth Olympics, Campbell will become the first female swimmer to carry our flag. While NBA and Boomers superstar Patty Mills will be our first Indigenous flag bearer.

PATTY MILLS, BOOMERS PLAYER: For me, as a proud Kokatha, Naghiralgal and Dauareb-Meriam man, this is really special.

Meanwhile, Aussie Opal Liz Cambage has pulled out of the Olympics. In an Instagram post Cambage said she was worried about heading into a "bubble" Olympics and said she needs to look after herself mentally and physically.

Slovenian Superstar Tadej Pogacar has won his second straight Tour De France. The 22-year-old became the youngest back-to-back winner ever absolutely blitzing the field in the 3-week slog fest.

The Milwaukee Bucks are one win away from the NBA Championship. They beat the Phoenix Suns in game 5 of the best of 7 series. Off the back of 32 points from Giannis Antetokoumpo.

12-year-old skateboarding prodigy Gui Khury has just made history. He landed the first ever 1080 off a vert ramp in competition. That's 3 full spins in the air. The Brazilian dynamo also became the youngest X-Games gold medallist, ever.

Young Balloonist

Reporter: Amelia Moseley

INTRO: Finally, today to a sport that's not for people who are scared of heights, hot air ballooning. You're about to meet an 11-year-old in Canberra who's just been on his 120th balloon flight and he's got high hopes of becoming a pilot himself one day. Take a look.

HAMISH: It kind of just feels like the Earth falls away from you. It's really smooth and gentle and peaceful.

That's the feeling 11-year-old Hamish gets when he's flying across the sky in a hot air balloon. And it's one he's pretty familiar with since he's been in one not once, not twice, but...

HAMISH: Today was my 120th flight. Every flight is different. I've flown over Canberra, the Hunter Valley and Caloundra.

It all started when he was only two-years-old.

HAMISH: So, when I was two, my parents took me to the Canberra balloon festival and I fell in love with them from there.

Then at 4 years old, he asked the crew at a hot air balloon company if he could help out on weekends, and at seven he took to the skies for the first time.

HAMISH: I saw a balloon coming into land at a nearby oval, so I went over and met the crew and helped pack up the balloon. I've been doing that ever since.

Hamish has become an unofficial part of the crew. Which means some very early and very chilly weekend starts to help set up the balloons, launch them off and pack them up.

HAMISH: On pack up I help pull the balloon down and squish the air out, so quite a lot of stuff.

DAVE ROBERTS, BALLOON PILOT: These days he's as good as one of our chief crew. He really helps out a lot, bar driving the cars and flying the balloon, he can pretty much do everything, so yeah, nah he's great.

And Hamish has even bigger plans.

HAMISH: When I'm 16 I'm going to try and get my junior pilot license so I can fly small balloons and when I'm 18 or maybe a bit older, I'll try and get my commercial license so I can fly balloons like this one.

DAVE ROBERTS, BALLOON PILOT: He's definitely guaranteed a job with us. As soon as he gets his car licence and balloon licence, he can work with us, for sure.

So, who knows, next time you see one of these colourful floating balloons in the sky it could be Hamish on board, but don't be offended if he doesn't see you waving.

Closer

Well, that's it for our first week back. I hope you've enjoyed it and maybe learned a thing or two. We'll be back next week with more but, as always, there's heaps to keep you busy in the meantime, like a website full of stories and some brand new specials and of course, episodes of Newsbreak which you can check out every weekday. I'll catch you later. Stay safe.