Focus Questions

Episode 15
2nd June 2020

Community Sport

1. What did the BTN story explain?
2. What sport do Lily and Jess play?
3. What have Lily and Jess missed about playing sport with their club?
4. What is the Return to Sport Toolkit?
5. What changes does it recommend?
6. When is competitive sport returning in your state?
7. Give an example of a sport where social distancing with be difficult.
8. Clubs will have to appoint a COVID-19 safety coordinator. Why might that be a challenge for a lot of clubs?
9. What financial support are sporting clubs getting in some states?
10. What effect will the new social distancing rules have on the sport you play?

SpaceX Launch

1. Briefly summarise the BTN *SpaceX Launch* story.
2. Where is Cape Canaveral? Locate using Google Maps.
3. Complete the following sentence. The SpaceX Dragon capsule is travelling to the International _____ _____.
4. The United States hasn't launched its own astronauts in the last 9 years. True or false?
5. How have NASA space shuttles been used to explore space?
6. When did NASA retire the space shuttles?
7. How have US astronauts been travelling to space? What were the disadvantages?
8. Who is the CEO of SpaceX?
9. What do some people say is the future of space exploration?
10. What is your favourite moment in space exploration history? Explain your answer.

> Check out the SpaceX Launch resource on the Teachers page.

Megafauna Extinction

1. Before watching the BTN story, record what you know about megafauna.
2. What is megafauna?
3. About how many years ago did megafauna exist in Australia?
    a. 4,000
    b. 40,000
    c. 400,000
4. Complete the following sentence. A Diprotodon was a giant _____.
5. What did palaeontologist Dr Scott Hocknull and his team discover?
6. Where did they make the discovery?
7. What did they use to create images of what the megafauna might have looked like?
8. Give some examples of the megafauna species they discovered.
9. What might have caused megafauna to become extinct?
10. What did you learn watching the BTN story?

> Check out the Megafauna Extinction resource on the Teachers page.

New Wasp Species

1. Who discovered a new species of wasp?
2. How do the insect traps work?
3. Dr Erinn Fagan-Jeffries is an entomologist. What does that mean?
4. What percent of insect species in Australia have names and are described?
    a. 30%
    b. 60%
    c. 90%
5. What was BTN reporter Cale researching in Fiji?
6. What did he discover?
7. Explain what a taxonomist does when a new species is discovered.
8. What are the rules for naming a new species?
9. What advice does Dr Erinn Fagan-Jeffries give about discovering a new species?
10. What would you name the new species of wasp?

Teacher Resource

Episode 15
2nd June 2020

SpaceX Launch

Focus Questions

1. Briefly summarise the BTN *SpaceX Launch* story.
2. Where is Cape Canaveral? Locate using Google Maps.
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8. Who is the CEO of SpaceX?
9. What do some people say is the future of space exploration?
10. What is your favourite moment in space exploration history? Explain your answer.

Key Learning

Students will explore how spacecrafts and space missions help us understand the Solar System. Students will investigate the history of space exploration.

Curriculum

Science – Year 3
Earth's rotation on its axis causes regular changes, including night and day.

Science – Years 5 & 6
Scientific knowledge is used to solve problems and inform personal and community decisions.

Science – Year 7
Predictable phenomena on Earth, including seasons and eclipses, are caused by the relative positions of the sun, Earth and the moon.

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

Activity

What do you see, think and wonder?

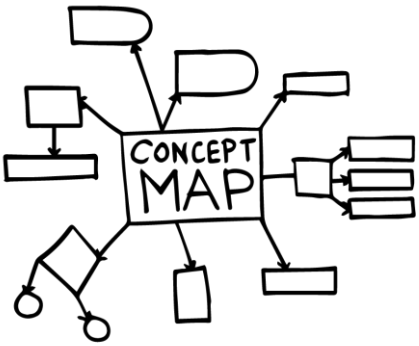
After watching the BTN *SpaceX Launch* story, students will respond to the following questions:

- 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 was SURPRISING about this story?

Activity

Class Discussion

Hold a class discussion about the information raised in the BTN *SpaceX Launch* story. Create a class mind map about space exploration asking students to record what they know. Use the following questions to guide discussion:



- What was unique about the SpaceX Dragon launch?
- What do you know about SpaceX?
- What do you know about NASA?
- Do you think space exploration is important? Why or why not?
- How has space exploration changed over time?
- What do you think the future of space exploration will look like?

Activity

Glossary

Students will find definitions for the following key words which relate to spacecrafts and how they are designed. Students may want to use pictures and diagrams to illustrate the meaning and create their own glossary. Throughout their research students will add words and definitions to their glossary. Here are some words to get your students started.

Payload	**Orbit**	**Launch**
Aerodynamics	**Propellant**	**Escape system**

Activity

Create a model

In this activity, students will think like engineers and build a model of their favourite spacecraft. Students will choose one of the spacecrafts pictured below or choose another spacecraft which interests them.

SpaceX Dragon

Apollo

International Space Station

Vostok 1

Soyuz

Discovery

Before creating their models, students will respond to the following:

- Sketch a diagram of the spacecraft and label important features.
- What will the size and scale of your model be?
- What do the different parts of your spacecraft look like? Visit this NASA website to learn more about the parts of a spacecraft. For example, navigation, structures and antennas.
- What materials will you use to make your model spacecraft? Find the objects you will need to construct your spacecraft.
- What tools will you need to build your spacecraft? Make a list.
- Will you be able to test the aerodynamics of your spacecraft? How?

Students will then create a model of the spacecraft using the materials they have collected and display them in the classroom. You may want to use a template which can be used to make scale models - see examples of some spacecraft models below.
Build your own scale models of JPL Spacecraft
Template for Hubble

Design your own spacecraft

Alternatively, students will imagine they are engineers and design their own spacecraft. Students will respond to the 3 questions below, which are the same 3 questions engineers at NASA need to answer when designing vehicles for space missions.

- Where would you go?
- What kind of spaceship would you design?
- How would you build it?

After responding to the above 3 questions students will create a 3D model of their spacecraft using materials of their choice (for example, recycled materials, clay or 3D printed model).

Activity

Research project - Spacecraft

Students will choose a spacecraft to explore in more detail (this could be the same spacecraft they built a model for – see above activity). Students will then respond to the following research questions to create a profile on the spacecraft.

- Who created the spacecraft?
- When was it created?
- What size is it?
- How much did it cost to build?
- What is the purpose of the spacecraft?
- Can it carry passengers? How many?
- Imagine you are the creator and write a paragraph promoting the spacecraft.
- Did it complete any missions? Briefly summarise the mission and describe its purpose.
- How has the spacecraft and its missions helped us understand the Solar System and beyond?
- Include photographs and diagrams in your research.

Activity

KWLH

The KWLH organiser provides students with a framework to explore their knowledge on the topic of space exploration 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?***

Research questions for inquiry

Students will determine a focus for their inquiry and develop a key question to guide their inquiry (below are some examples). Students will collect and record information from a wide variety of sources (internet, books, newspaper and magazines).

- Why do we have the International Space Station?
- Is it important for Australia to be involved in space exploration? Why or why not? Explore the history of Australia's involvement in space exploration. Watch this BTN Aussie Space Agency story and Apollo 11 and Parkes story to learn more.
- What types of careers are there in space exploration?
- How has space exploration changed since the first landing on the Moon? Make comparisons between now and then. Make predictions about future space missions and exploration. Include illustrations with your prediction.
- How have spacesuits changed over time? Compare the first spacesuits worn in the 1960s to the spacesuits worn by astronauts on board the SpaceX Dragon capsule in 2020. Watch this BTN Spacesuit History story to learn more.

Useful Websites

SpaceX's Dragon capsule delivers two astronauts to the ISS with automatic docking
https://www.abc.net.au/news/2020-06-01/elon-musk-spacex-capsule-docks-with-the-iss/12305800

SpaceX Launch – NASA
https://www.nasa.gov/specials/dm2/

Dragon – SpaceX
https://www.spacex.com/vehicles/dragon/

NASA and SpaceX team up for first US astronaut launch since 2011
https://www.bbc.co.uk/newsround/52526849

Aussie Space Agency – BTN
https://www.abc.net.au/btn/classroom/aussie-space-agency/10489084

Space Science Special – BTN
https://www.abc.net.au/btn/space-science-special/12133186

Teacher Resource

Episode 15
2nd June 2020

Megafauna Extinction

Focus Questions

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3. About how many years ago did megafauna exist in Australia?
    a. 4,000
    b. 40,000
    c. 400,000
4. Complete the following sentence. A Diprotodon was a giant _____.
5. What did palaeontologist Dr Scott Hocknull and his team discover?
6. Where did they make the discovery?
7. What did they use to create images of what the megafauna might have looked like?
8. Give some examples of the megafauna species they discovered.
9. What might have caused megafauna to become extinct?
10. What did you learn watching the BTN story?

Key Learning

Students will learn more about Australian megafauna and investigate why they became extinct.

Curriculum

Science – Year 6
The growth and survival of living things are affected by physical conditions of their environment.

Science – Year 7
Scientific knowledge has changed peoples' understanding of the world and is refined as new evidence becomes available.

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

Activity

What do you know about megafauna?

As a class discuss the BTN *Megafauna Extinction* story and ask students to record what they learnt watching the story. Record any questions they have. Here are some questions they can use to help guide their discussion.

- What does the term megafauna mean?
- When did megafauna exist?
- How do we know they existed?
- Why did megafauna grow so big?
- What might have caused Australia's megafauna to die out?

Activity

Glossary

Students will brainstorm a list of key words and terms that relate to the BTN *Megafauna Extinction* story. Here are some words to get your students started.

Megafauna	Adaptations	Fossil
Extinction	Species	Palaeontologist

Activity

Meet the Megafauna

Students will learn more about the species of megafauna discovered by palaeontologists. Students will choose a species of megafauna to research and create a profile of them. Use the following headings to help guide research:

- Common and scientific names
- What type of animal is it? (mammal, reptile, bird)
- Description – size, appearance, special features.
- When did it die out? What caused the extinction?
- Where did it live? Describe the habitat.
- What was its diet?
- What existing species is it similar to?

Macropus

Diprotodon

Pallimnarchus

Palorchestes

Phascolonus

Quinkana

Thylacaleo *Megalania*

Images courtesy of Queensland Museum

Activity

Megafauna Inquiry Questions

Students will explore megafauna in more detail. After watching and discussing the BTN *Megafauna Extinction* story, what questions do students have and what are the gaps in their knowledge? Students can complete the following KWLH organiser to explore their knowledge 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?***

Here are some possible questions for students to research:

- Why is it important to research megafauna?
- What theories do we have for the extinction of Australia's megafauna? Investigate possible causes.
- Did people live during the age of Australian megafauna? What evidence do we have of this?
- What is the connection between Australian Indigenous peoples and megafauna?

Activity

Megafauna at a Billabong

Students will analyse the image and then respond to the following:

- Write a short paragraph describing what you see in the image.
- What does the image tell you about megafauna?
- Create a caption for the image.
- What question/s would you like to ask about the image?
- Choose a species of megafauna in the image and write a fictional story about it or write about a day in the life of…
- Create your own artwork featuring megafauna.

Image courtesy of Queensland Museum

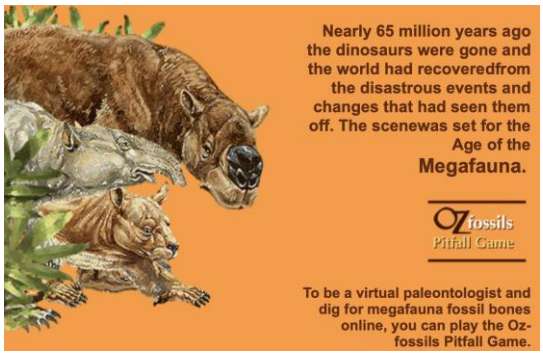
Further investigation

Students will design their own species of megafauna. Students will draw a picture of their animal and include information about where it lives, what the animal eats and any adaptations.

Activity

More about Megafauna

Learn about possible causes of megafauna extinction. Watch the megafauna murder mystery video



Be a virtual paleontologist and dig for megafauna fossil bones. Play the pitfall game

Activity

Megafauna Quiz

Quiz Questions	Your Answer
1. The term megafauna means… a. Scary animal b. Large animal c. Extinct animal	
2. About how many years ago did megafauna exist in Australia? a. 4,000 b. 40,000 c. 400,000	
3. Megafauna include… a. Mammals b. Mammals and birds c. Mammals, birds and reptiles	
4. What was the biggest megafauna animal? a. Diprotodon b. Thylacoleo c. Wonambi	
5. Which megafauna is named after an Aboriginal word for the Rainbow Serpent? a. Wonambi b. Macropus c. Quinkana	

Answers: 1b, 2b, 3c, 4a, 5a

Useful Websites

Megafauna – Queensland Museum
https://www.qm.qld.gov.au/Find+out+about/Dinosaurs+and+Ancient+Life+of+Queensland/Megafauna#.Xs3R5GgzYU0

Megafauna – Australian Museum
https://australianmuseum.net.au/learn/australia-over-time/megafauna/

Megafauna Exhibition - BTN
https://www.abc.net.au/btn/classroom/megafauna-exhibition/10488818

Megafauna Fossil Footprints - BTN
https://www.abc.net.au/btn/classroom/megafauna-fossil-footprints/10522690

Death of the Megafauna – ABC Science
https://www.abc.net.au/science/features/megafauna/

Megafauna murder mystery – ABC Education
https://education.abc.net.au/home#!/media/2119405/megafauna-murder-mystery

BTN Transcript: Episode 15 – 2/6/20

Hey, I'm Amelia Moseley and you're watching BTN. Check out what's coming up. We find out more about SpaceX's history-making flight, learn about Australia's megafauna and why it disappeared and meet some schoolkids who've discovered a new species of wasp.

US Protests

Reporter: Charlotte Batty

INTRO: But first today, to a big story that's still developing in the US. There've been big and often violent protests across the country after an unarmed black man was killed by police. It's not the first time that's happened and many say racism is to blame. Here's Charlotte to explain.

His name was George Floyd. A 46-year-old father of two from Minnesota who's become a symbol to many Americans of racism and police violence. Protests erupted last week when George died after being arrested for allegedly using a fake $20 note. Many believe he was treated with unnecessary violence by police before he died. It's not the first time something like this has happened.

Many black Americans say they feel unsafe around police and feel like they're unfairly targetted. While a police officer's now been charged over George Floyd's death, many say it's not enough and the deaths need to stop. The protests have now spread from Minneapolis to other US cities and some have been violent with cars set on fire, shops looted, and buildings vandalised. Some cities have brought in curfews which means people aren't allowed out at night and National Guard soldiers have been sent to control the protestors.

DONALD TRUMP, US PRESIDENT: It does not serve the interest of justice or any citizen of any race colour or creed for the government to give into anarchy, abandon police precincts or allow communities to be burned to the ground.

But the protests haven't all been violent. In some places police have even joined in to let people know that they want to stop the deaths too and many celebrities have shown their support, saying America needs to do more to make its citizens feel safe and equal.

BEYONCE: If you're white, black, brown and anything in between, I'm sure you feel hopeless by the racism going on in America right now.

SpaceX Launch

Reporter: Cale Matthews

INTRO: We'll keep you up to date on that story as it changes. Now to some better news that came out of the US last week. Two astronauts have arrived at the International Space Station after blasting off from Cape Canaveral onboard a SpaceX rocket. It's a milestone for a few reasons. Cale explains.

For more than half a century Cape Canaveral in Florida has been a place where history was made and the weekend, people came here to the Kennedy Space Center to see another first. A SpaceX Crew Dragon capsule, carrying Bob Behnken and Doug Hurley to the International Space Station and launching us into a brand-new era of space exploration. Of course, it's not the first time people have gone into space. So why is this mission so important?

Well, for starters, the United States hasn't launched its own astronauts in 9 years. Not since the last flight of the space shuttle Atlantis. NASA's shuttles were reusable aircraft used to transport US astronauts into and out of space from 1981. It had 6 of them, and over the years they were used to launch satellites, do experiments and take astronauts to and from the ISS. Although 2 shuttles were lost

in tragic accidents.

NASA decided to retire its space shuttles in 2011 because they were expensive to run and it had other priorities, like launching unmanned probes and planning a mission to Mars. When US astronauts did need a lift to space, they had to buy a seat on a Russian Soyuz spacecraft. But that's not cheap and apparently, it's not a very comfortable flight either. Yikes! So, in 2014 NASA asked some private companies to find them a cheaper, homegrown alternative. Enter: Elon Musk.

Yeah, you've probably heard of him. The guy who founded PayPal and Tesla. He is also the CEO of SpaceX, a private space exploration company. NASA paid SpaceX, and another company Boeing, to come up with a replacement for the Space Shuttle Program. Basically, NASA are buying tickets from SpaceX to put their astronauts on board. It's a big deal, because it's the first time NASA's asked a private company to build its spacecraft. In fact, some reckon this is the future of space travel; lots of private companies building rockets, sending up satellites and eventually lots of people.

SpaceX has already launched rockets to the ISS, but this is the first crewed mission. It was actually supposed to take off on Thursday, but some bad weather got in the way. On Sunday, though, it was all systems go. After 19 hours, the crew docked and entered the International Space Station. SpaceX is hoping that this mission is a stepping stone towards even bigger things for the company and many say this is one small step for a different kind of space travel.

News Quiz

Which social media company did the US President have a bit of a fight with last week? Twitter, Facebook or Tiktok? It's Twitter. President Trump was angry because Twitter put warnings on a couple of his tweets. Twitter said one was misleading, and one promoted violence but the President said Twitter was biased.

Remember when Aussie comedian Celeste Barber raised 51 million dollars during the bushfires? Which organisation is getting that money? The Red Cross, the Salvation Army or the RFS? It's the RFS. That's who Barber initially tried to raised money for but when the donations exploded, she wanted to share it out. But a court said that wasn't allowed.

Can you name this world leader? It's Jacinda Ardern the Prime Minister of New Zealand and surely one of the few leaders who've had to say this in an interview.

ARDERN: We're just having a bit of an earthquake here, Ryan. Quite a decent shake here.

Ardern stayed cool, calm and collected as a magnitude 5.8 quake rattled Wellington. Luckily, without doing too much serious damage.

ADERN: No, we're fine.

How did a bunch of containers, surgical masks, and aircon ducts end up on this Sydney beach? Did they fall out of a plane, fall off a cargo ship or were they thrown off a cliff? They were in containers which fell off this cargo ship which was making its way from China to Melbourne.

And do you know the name of JK Rowling's new story which she's releasing online? Is it The Ickybee, The Boggart or The Ickabog? It's The Ickabog. It's a fairy tale she wrote for her kids years ago and though it'd be a good time to share it.

Community Sport

Reporter: Charlotte Batty

INTRO: Now to a question a lot you have been asking for the past couple of months. When can I start playing sport again? Well the good news is that a lot of states have started letting community sports

teams back on the field or court or pitch. But there are going to be some changes. Here's Charlotte.

Jess and Lily have been waiting a long time to get back on the court.

LILY, METRO JETS NETBALL CLUB: I'm really looking forward to getting back into netball so that I can pass the ball around with my friends instead of hitting it at a wall by myself.

JESS, METRO JETS NETBALL CLUB: It's a lot more funner and better training at the club with my friends.

It's a feeling that lots of sports lovers around Australia can identify with.

SOCCER PLAYER 1: There's really not much to do at home apart from practice by myself, but what I find I miss the most is because, with soccer, we get to socialise with our friends while doing soccer.

SOCCER PLAYER 2: Me and all my friends and my team, we're all really good buds and we all really enjoy the experience of coming together and playing soccer with each other.

Lucky for these guys it looks like the wait is nearly over. Around the country, community sports are starting to get back up and running, although like most things COVID what you can do depends on where you live. For example, Jess and Lily live in South Australia where some non-contact outdoor games, like tennis, are starting up again this week, while netball comps should get going by June 25th. But in some other states, for now, you're only allowed to do no contact outdoor training in groups of 10 or 20 people.

But even when games resume, experts say we'll need to be careful. That's why federal government agency, Sport Australia has brought out a Return to Sport Toolkit, which is a guide for clubs of all types and levels letting them know what steps they should take to keep players safe. It says players all have to be careful to wash their hands and keep equipment clean and only one of your parents will be able to come and watch you. You're also expected to keep socially distancing as much as possible.

LILY, METRO JETS NETBALL CLUB: I think it will be really tricky because I like getting competitive and I like kind of knocking into people a tiny bit, just a tiny bit. And I feel like it would be a little hard to do that when you're trying to social distance at the same time and you can't really intercept a ball when you're supposed to stay 1.5metres away.

Some sports will find it tricky to follow the social distancing rule and experts say indoor contact sports like basketball and martial arts will probably be the last ones to start up again. Another controversial rule is that clubs have to appoint a COVID-19 safety coordinator to keep track of everyone at training, which will mean more work for volunteers.

While it may not be easy, a lot of clubs are thankful to be kicking things off again. Without money coming in from player registrations, ticket entries and canteen sales, many have been really struggling to stay afloat. Which is why some governments have put money towards helping them out. Queensland’s government is also offering vouchers to families to help them pay for sports fees in the hope it will encourage kids to get active. So hopefully we'll all be back to doing what we love soon.

LILY, METRO JETS NETBALL CLUB: I've really been missing it because I like being competitive in games. I hope it goes away soon.

JESS, METRO JETS NETBALL CLUB: I can't wait to get back to netball because it's a lot of fun and it keeps you active.

Sport

The NRL is officially back on and it's fair to say fans were pretty stoked. Yep social distancing rules meant empty stadiums. So, hang on, where is that cheering coming from?

DES O'NEILL: It's controlled by external forces around the game and external inputs as well as an operator.

Des and his team were recruited to create realistic crowd sound effects. Something that's a lot harder than it might seem.

TIM O'NEILL: Trying to create a crowd a real living, breathing kind of animal that is a crowd is a treacherously hard thing to do. When something exciting happens, we are there ready to go.

Speaking of excitement, the Uluru Camel Cup was held over the weekend - again without crowds but still with the traditional camel poo throwing. This year's winner was Lara Billar on her camel Tex.

LARA BILLAR, WINNING JOCKEY: It was just amazing, I mean, I'm speechless to be honest. But Tex just kept running and better than he did before, I actually think, and it was just amazing.

Megafauna Extinction

Reporter: Jack Evans

INTRO: As you know, Australia's home to some pretty wacky animals but did you know that until 40,000 years ago, it was home to giant versions of some of those animals? They were known as megafauna and a group of Aussie researchers has been looking into some new megafauna species and why they disappeared. Take a look.

DR FRANKENFINE: That's it. I've done it. I'm a genius. I've created the perfect monster. All I need is a wombat, a harmless little cutie little wombat. Well it won't be so harmless when I double, no triple, quadri, I'll make it the size of a truck. I'll call it megafauna.

ASSISTANT: Ah sir.

DR FRANKENFINE: What?

ASSISTANT: Megafauna is already a thing.

DR FRANKENFINE: What?

ASSISTANT: Well it was a thing. About 40,000 years or so ago giant wombats called Diprotodons used to actually roam the Earth.

DR FRANKENFINE: What about a giant kangaroo?

ASSISTANT: Giant Macropus.

DR FRANKENFINE: A large lizard?

ASSISTANT: Megalania.

DR FRANKENFINE: A bigger than average crocodile?

ASSISTANT: Pallimnarchus.

DR FRANKENFINE: Oh, I see.

This scientist's assistant is right. Megafauna are a thing and Australia used to be mega full of them. If you haven't worked out by the name yet, megafauna were big. We're talking kangaroos twice the height of an adult human, wombats that weighed two and a half tonnes, six-metre-long lizards and massive crocs that you'd definitely want to avoid.

They're the sorts of creatures that palaeontologist Dr Scott Hocknull has spent the past ten years studying. He and his team have uncovered a bunch of megafauna fossils at South Walker Creek in Northern Queensland, including some species that have never been seen before. And with the help of 3D scanning they've been able to piece together images of what the huge beasts might have looked like.

DR SCOTT HOCKNULL, PALAEONTOLOGIST: We started with the first discovery in 2008 with these bones from ancient crocodiles and over that period of time we've uncovered an amazing array of 16 megafauna species. This entire environment was dominated by mega predators. We have 5 species of gigantic reptiles - 3 crocodiles, one that lived on land, and two giant lizards, two giant goannas. There was even one predatory mammal called Thylacoleo the marsupial lion. So, you paint a picture of this very strange, very different world that the first Australian's would have actually met.

Of course, these days we don't have to worry about marsupial lions and gigantic reptiles actually gigantic reptiles are still a thing. But the kangaroos and wombats are far more modestly sized these days and that's because around 40,000 years ago, most of their distant mega relatives became extinct. How? Well we're not quite sure. For a long time, many people suspected that it was because humans showed up and hunted them to extinction. But more recently experts have suggested it might have been natural changes in the climate, a theory Dr Scott says is backed up by this find.

DR SCOTT HOCKNULL, PALAEONTOLOGIST: Sometime after 40,000 years ago these animals went extinct and during this period of time was a massive change to the environment. The rivers dried up, the grasslands disappeared, fire became more frequent in the landscape and of course people arrived. But we don't have any evidence of people in our fossil sites. So, we can't place humans at the time of their extinction.

So, there you have it, humans are off the hook, well maybe? In any case the find has given us some new insight into the amazing and well, slightly terrifying world of megafauna.

DR FRANKENFINE: A world that I plan on restoring when I bring back the megafauna. I just need to find a wombat. Does anybody have a wombat?

Did You Know?

Did you know that Australia was once home to two species of 6-metre long snakes with bodies as thick as dinner plates? They're named Wonambi after the Pitjantjatjara name for the legendary Rainbow Serpent.

New Wasp Species

Reporter: Cale Matthews

INTRO: Finally, today, imagine what it would be like to find and name your own species. Pretty cool, right? Well you're about to meet some primary school kids who've done just that. And experts reckon they won't be the last to do it. Let's find out more.

If you've never seen this insect before, you're not alone. It's a previously undiscovered species of wasp and it was found by these guys.

KID 1: I felt very excited that we found a new species.

KID 2: I was quite happy that we found something here in the Riverland.

Since term 1 they've been busy collecting insects using these special traps.

KID 3: What the trap does is, the bugs they fly, they hit the trap and then they flying up to the sunlight. There's this little hole and the bugs go inside the hole into the bug thing where the bugs go.

After that the insects are sent to Dr Erinn Fagan-Jeffries. She's an entomologist, or insect scientist, and she's been going around to schools teaching kids about the tiny, colourful, and sometimes undiscovered world of insects.

DR. ERINN FAGAN-JEFFRIES: The project is called insect investigators and it's all about getting schools involved in discovering new species.

She says there's actually more unknown insects out there than you might realise.

DR. ERINN FAGAN-JEFFRIES: So we think only 30% of the species in Australia have names and are described, which means most of the biodiversity in your backyard or your local park or out in the bush is yet to be discovered.

In fact, I even discovered a wasp species a few years ago. It's true. Before I was a BTN reporter, I was busy being a scientist. I did a bit of research on bees in Fiji and actually discovered a new species of wasp. But as I found out, there's a bit of a process before a species can become official. And that's where scientists like Dr Erinn can come in.

DR. ERINN FAGAN-JEFFRIES: So the job of a taxonomist is to take this new species and then write about it, take pictures, measure different things so that we can identify that species in the future. The last bit of course is to give it a name.

And that's not that straight forward. For example, I couldn't call my wasp Caley McCale Face as much as I wanted to.

DR. ERINN FAGAN-JEFFRIES: There's are a few rules; so you can't name it after yourself and it can't be offensive or rude.

Names also have to include a genus, which is kinda like the group it belongs to, and a species, which separates it from the group. So, for example we humans are Homo sapiens, Homo is the 'genus', and sapiens is the species. But that doesn't mean you can't get creative with a name.

DR. ERINN FAGAN-JEFFRIES: So I had a wasp that had black antennae with white patches in the middle so we named it Oreo, Zathon Oreo, after Oreo chocolate biscuits.

So, what are the kids from Ramco rolling with?

KID 1: The Ramco wasp or like the Ramco Primary wasp.

KID 3: I'm thinking REG 2020 because REG stands for Ramco Environmental Group and it was found in 2020.

KID 2: I've thought of a name called Ramcona because it's from this school and it's from the coronavirus.

These guys will have a bit of time to think about it, while Dr Erinn finishes the work she has to do to make the find official. Meanwhile, she's got some advice for anyone who wants to make their own history-making discovery.

DR. ERINN FAGAN-JEFFRIES: Be observant, have a look around you and take lots of notes, lots of pictures, you never know what you'll find.

Ask a Reporter

If you want to know more about naming species, you can ask us live on Friday for Ask A Reporter. Just head to our website for all the details.

Closer

Well that's it for today but we'll be back before you know it with more stories and quizzes and other fun stuff. In the meantime, there's heaps to see and do on our website and you can check out BTN Newsbreak every weeknight. We've also got a YouTube channel with lots of extra videos which you can check out if you're 13 or over. Bye for now. See you soon.