



Teacher Resource

Focus Questions

COP26

1. What does COP26 stand for?
2. What is the aim of the COP26 meeting?
3. What is meant by net zero emissions?
4. Do you think Australia is doing enough to address the problem of climate change?
5. What would your message be to world leaders about the issue?

Facebook Metaverse

1. The metaverse is a way of using the internet through _____ reality.
2. Which existing video games are giving us a glimpse into what could be possible in the metaverse?
3. What has the company Facebook changed its name to?
4. Why could the metaverse take a while to develop?
5. What did you learn watching this story?

Elephant Evolution

1. What was the main point of the Elephant Evolution story?
2. What is natural selection?
3. What events have caused the increase in the numbers of tuskless elephants?
4. What are the advantages and disadvantages of elephants being tuskless? Make a T chart.
5. What do you understand more clearly since watching the Elephant Evolution story?

Check out the [Elephant Evolution](#) resource on the Teachers page.

Space Seeds

1. Briefly summarise the BTN story.
2. What species of seeds were sent into space?
 - a. Golden Wattle
 - b. Mulga Wattle
 - c. Silver Wattle
3. Why were the seeds sent into space?

EPISODE 31

2nd November 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.

4. Explain the seeds in space experiment.
5. What theories did the students have about their seeds in space?

Check out the [Space Seeds](#) resource on the Teachers page.



Teacher Resource

Elephant Evolution

Focus Questions

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

1. What was the main point of the Elephant Evolution story?
2. What is natural selection?
3. What events have caused the increase in the numbers of tuskless elephants?
4. What are the advantages and disadvantages of elephants being tuskless? Make a T chart.
5. What do you understand more clearly since watching the Elephant Evolution story?

Activity: See, think and wonder

After watching the BTN Elephant Evolution 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 did you LEARN from this story?
- What was SURPRISING about this story?
- What QUESTIONS do you have about this story?

Activity: Class Discussion

Discuss the BTN Elephant Evolution story as a class. Use the following questions to guide discussion:

- What is evolution? Come up with a class definition.
- What is natural selection?
- Why have some elephants evolved to have no tusks?
- What are the positives and negatives of elephants being tuskless?

Activity: Glossary

Students will brainstorm a list of keywords that relate to elephants. Here are some words to get them started.

EVOLUTION	POACHING	AFRICAN ELEPHANT
TUSK	NATURAL SELECTION	IVORY TRADE

EPISODE 31

2nd November 2021

KEY LEARNING

Students will learn more about why some African elephants have evolved to have no tusks. They will also create a profile of the species.

CURRICULUM

Science – Year 4

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

Science – Year 5

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

Science – Year 6

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

Science – Year 7

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

Activity: Elephant Research

After watching and discussing the BTN Elephant Evolution story, what questions do students have and what are the gaps in their knowledge? Students will develop their own question/s for inquiry, collecting and recording information from a wide variety of sources. Students may develop their own question for inquiry or select one of the questions below.

- Where do elephants live in the wild? Explore their habitat and mark where they live on a world map.
- What is the difference between an Asian elephant and an African elephant? List some of the main characteristics of both species and then compare and contrast. Explore the taxonomy of each species and categorise the information you find using the classification system.
- Where are elephants in the food chain? Draw a diagram showing what animal feeds on what. Use illustrations or photos to demonstrate this food chain. On your diagram use words like predator, consumer, producer, decomposer, carnivore, herbivore, transfer of energy.
- Why do elephants have thick and wrinkly skin? Explore the physical adaptations that help elephants survive in the wild.
- Why do elephants have a matriarchy? What does this mean? Explore the behaviours of Asian elephants in more detail.
- What is causing species loss of elephants? Explore issues such as habitat loss, pollution and disease. Which of these factors are caused by humans?
- What makes elephants unique? Why are they called a keystone species?
- What is the theory of natural selection? This [BTN story](#) about Charles Darwin helps to explain it.

Activity: BTN stories about Elephant Poaching

Students can watch these BTN stories to get a better understanding of the issue of elephant poaching.



[BTN Ivory Trade story](#)



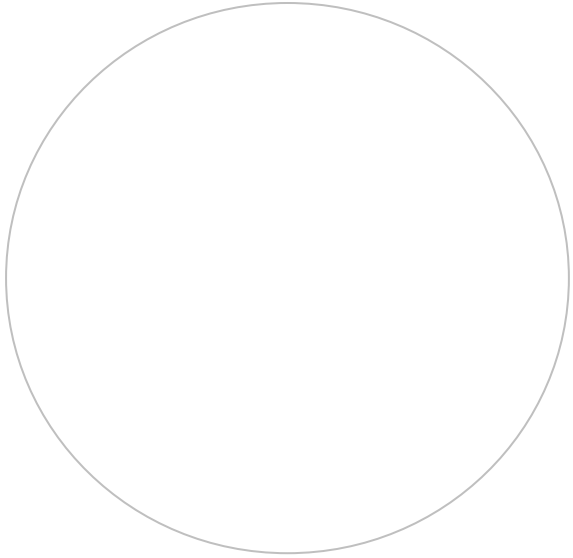
[BTN Elephant Poaching story](#)

Respond to the following questions:

- What is poaching?
- About how many elephants are killed by poachers each year?
- Why are they killed?
- Ivory is used to make...
- When was a worldwide ban on ivory introduced?
- What do you understand more clearly about elephant poaching?

Activity: Profile of an African Elephant

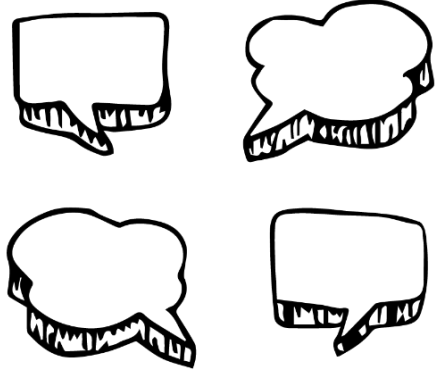
Students will find out more about African elephants and create a profile. Use the template below to guide your research.

<p>COMMON NAME:</p> <p>SCIENTIFIC NAME:</p> <p>APPEARANCE:</p> <p>HABITAT:</p>	 <p>Illustration/photo</p>
<p>ADAPTATIONS:</p>	
<p>THREATS:</p>	
<p>UNIQUE FEATURES OR INTERESTING FACTS:</p>	

Activity: Reporter for a day

Students will be a reporter for a day and investigate the issues highlighted in the BTN Elephant Evolution story. Write an online news report for kids explaining why some African elephants are tuskless. Things for students to think about:

- Who is your target audience? Use age appropriate language and themes.
- Write a headline that is short and to the point.
- Use words and pictures in your report.
- Find information from a variety of sources.
- Present the facts and/or opinions clearly and accurately.



Useful Websites

- [Elephants are rapidly evolving without tusks to escape ivory poachers, study finds](#) – ABC News
- [Ivory poaching: Why many elephants in Mozambique don't have tusks](#) - Newsround
- [Elephant Poaching](#) – BTN
- [Ivory Trade](#) - BTN
- [Charles Darwin Day](#) - BTN
- [What is evolution](#) – BBC Bitesize
- [Where did tusks come from? Why do only some animals have them?](#) - Newsround



Teacher Resource

Space Seeds

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. What species of seeds were sent into space?
 - a. Golden Wattle
 - b. Mulga Wattle
 - c. Silver Wattle
3. Why were the seeds sent into space?
4. Explain the seeds in space experiment.
5. What theories did the students have about their seeds in space?

Activity: What do you see, think and wonder?

After watching the BTN Space Seeds story hold a class discussion, using the following as discussion starters:

- What do you THINK about what you saw in the BTN story?
- What does this video make you WONDER?
- Think of three QUESTIONS you have about the story.
- What did you LEARN from the BTN story?

Activity: Questions and Answers

All scientific discoveries start with a question! As a class, come up with some questions you think scientists ask and solve in relation to plants and what they need to survive. As a class, make a list of questions that you would like to ask a scientist (see below for some example questions). Use the internet to find answers to your class questions.

- Why are we sending seeds to space?
- How does micro gravity affect plants?
- Can photosynthesis occur in space? Why or why not?
- Can plants grow in Martian soil?

EPISODE 31

2nd November 2021

KEY LEARNING

Students will use the scientific method to learn about the requirements of plants.

CURRICULUM

Science – Year 4

Science knowledge helps people to understand the effect of their actions.

Science – Year 5

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

Science – Years 5 & 6

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

Science – Year 6

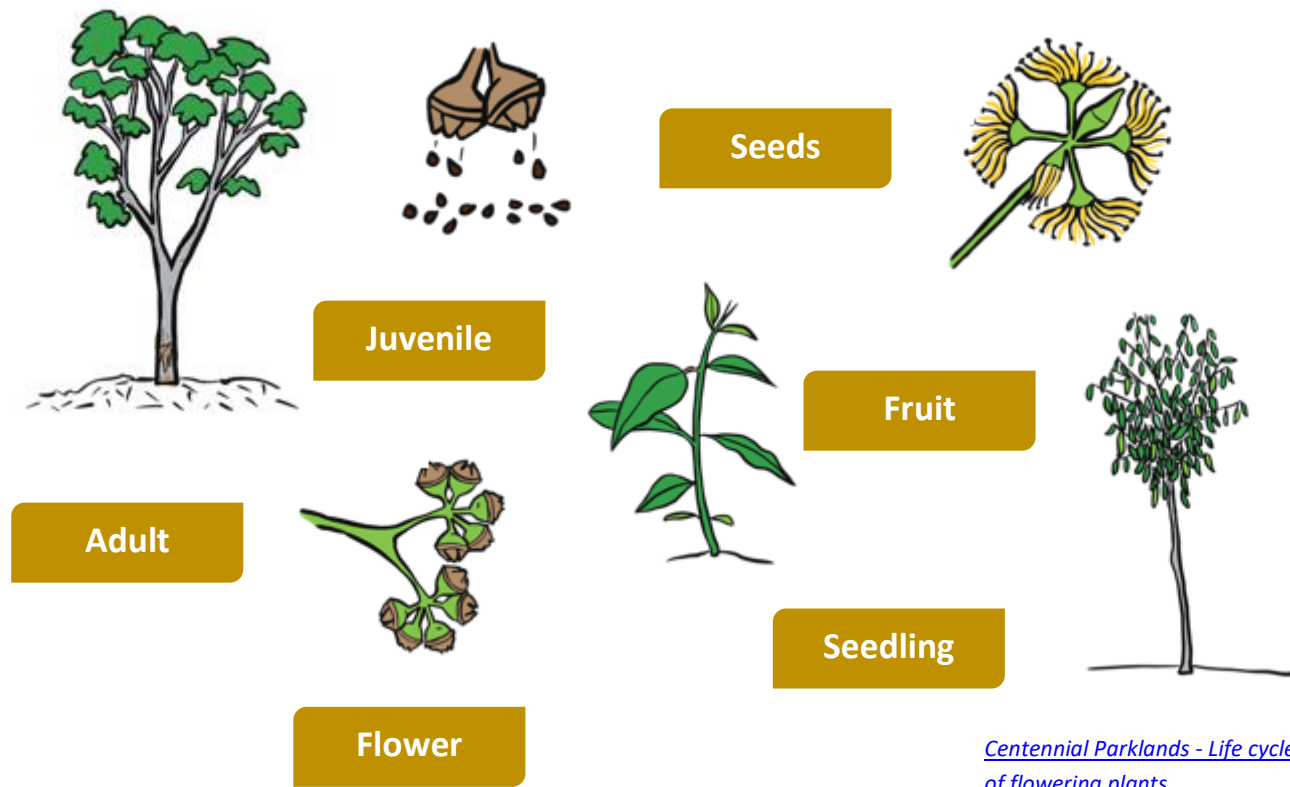
The growth and survival of living things are affected by the physical conditions of their environment.

Science – Year 7

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

Activity: Plant life cycle

Like all living things plants have a life cycle. Before starting this activity, students will research the six stages in the life cycle of a flowering plant. Ask students to then arrange the following images and stages (and add arrows) to create a diagram demonstrating the life cycle of an acacia plant.



Further investigation

Students will respond to one or more of the following questions to extend their learning on this topic.

- Investigate each step of the life cycle of an acacia plant, explaining the biological mechanisms behind it.
- What adaptations do acacia plants have to survive in their environment?
- What family group do acacia plants come from? Explore the classification of acacia plants.
- What are the best growing conditions for acacia plants?

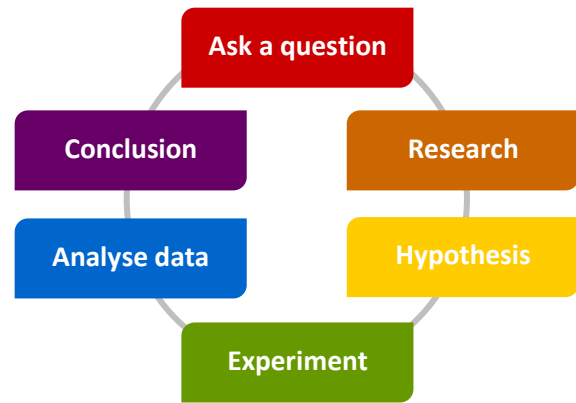
Activity: Scientific Method

What is a scientific method?

Before starting this activity, explain to students what the scientific method is and why we use it. As a class look at a diagram which illustrates the scientific method and explain the meaning of each step in the process. The method consists of a range of steps, however the order of the steps in the process can vary. The scientific method is a tool which helps us to solve problems and answer questions.

Framework

Provide students with the opportunity to think and behave like scientists. In pairs or small groups, students will conduct a scientific investigation about plants and what they need to survive using the scientific method. Students will design and conduct their own scientific investigation in pairs or small groups. Students will use the framework below before, during and after their investigation.



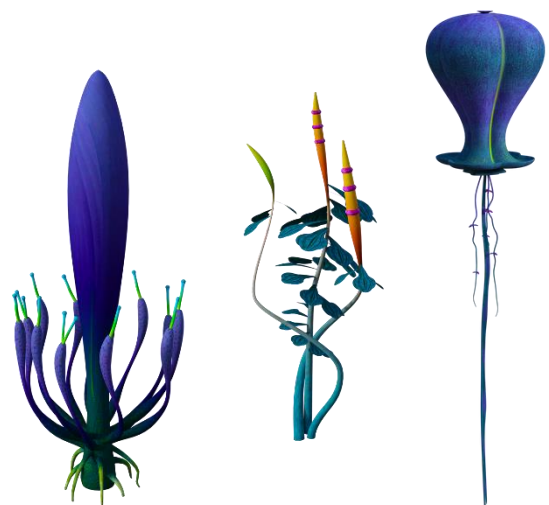
<p>Ask a question</p>	<ul style="list-style-type: none"> • Plan a visit to a local nature reserve or your own school yard to explore and observe the plants around you. Take notes about what you see. Use speech bubbles to document your thoughts and graph paper to document what you see. Ask why or how something is happening. • What questions do you have about plants and what they need to survive? For example: <ul style="list-style-type: none"> ○ Do plants need photosynthesis to survive? Explain. ○ How do plants that grow in shade differ to plants that grow in full sun? ○ What is the best medium to grow plants in? ○ Do plants grow faster in soil or water? ○ Why do some plants grow better in the shade? ○ Can plants grow upside down? If so, which way will the plant grow? ○ Can plants grow without soil or natural light? • Brainstorm some ideas for your science investigation based on what you have observed. • Identify a question that can be tested or researched. For example, “What happens when...?” or “What is the effect of...?” • Describe what you are going to research using your own words.
<p>Research</p>	<ul style="list-style-type: none"> • Research the topic to learn as much as you can. • Research using secondary sources of information to help you understand the observations you have made.
<p>Hypothesis</p>	<ul style="list-style-type: none"> • What do you already know about this scientific topic? • Formulate your hypothesis. • What do you predict to be true about the answer to your question?
<p>Experiment</p>	<ul style="list-style-type: none"> • Design and conduct an experiment to test your predictions. • How will you test your hypothesis? • What steps do you need to follow to investigate your prediction? • What equipment and materials will you need to conduct your investigation?

	<ul style="list-style-type: none"> • How will you gather evidence? • Plan how you will record and organise your data. • Perform your experiment, by repeating trials of tests, taking measurements, making observations, and recording data.
Analyse Data	<ul style="list-style-type: none"> • What does the data mean? Write a paragraph that summarises what happened. • Make calculations using the data you have collected. • Can you see any patterns in the data you have collected? • Draw a labelled diagram of your results to show what happened.
Conclusion	<ul style="list-style-type: none"> • Review your findings in relation to your hypothesis. • How effective was your investigation in testing your hypothesis? • Think of a creative way to explain/answer your science discovery (using multimedia, models, video, or animation). • Create your own mini science lesson about what you have learnt and teach students in another class.
Reflection	<ul style="list-style-type: none"> • Was this what I expected? Explain. • What problems did I experience when I was doing the investigation? How could I fix these problems?

Activity: Create your own alien plant!

Students will use their imagination and create their own alien plant species that can survive in space. Students will imagine they have discovered a new species of plant which has never been seen before on Earth. Use the following as a guide for this activity:

- Illustrate the new plant species using only a black felt-tip pen on a piece of A4 art paper – include as much detail as you can.
- Give the plant a common and scientific name.
- Describe what the plant looks like – what are some of its physical characteristics?
- How does it survive in its environment? What are its adaptations?
- Does it have any interesting or unique features?



Activity: Choose a project

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

Greenhouse design

Design your own greenhouse for plants! Challenge yourself by making a model of a greenhouse to grow plants on Mars. Do you think plants will grow in Martian soil?

Plant life cycle

Plant a native species local to your school's area. Observe and document the stages of the plant's growth: as each life stage appears.

Seed bank

Get involved in seed collecting. Collect samples of plants and remove the seeds for storing. Seeds need to be kept cool and dry in either cloth or paper (not plastic).

Scavenger Hunt

Go on a scavenger hunt in your local area and try to identify as many plants as you can. Look for plants in each of the life cycle stages. Keep a nature journal.

Useful Websites

- [What'll happen to the wattle?](#) – Seeds in Space
- [Growing Plants in Space](#) – NASA
- [Space Seeds Are Heading to Schools](#) – Space Australia
- [Endangered Seeds](#) – BTN
- [Moon Water Discovery](#) – BTN
- [Simple Hydroponics](#) – Gardening Australia



Teacher Resource

BTN Transcript: Episode 31- 2/11/2021

Hey, I'm Amelia Moseley and you're watching BTN. Here's what's coming up. We find out what Facebook's metaverse is, how elephants have evolved to lose their tusks and what happens when you send seeds into space.

COP26

Reporter: Amelia Moseley

INTRO: All that soon, but first up, you might've heard about a big climate meeting that's going on in Scotland this week, it's called COP26. Leaders from all around the world, including Australia, are there to talk about how to fight climate change and some are calling it the last best chance to save the planet. Let's find out more.

Welcome, my friends to Glasgow. A city that's known for such things as holding the first international soccer game, the birthplace of singer Jimmy Barnes and one of the inventors of television. Go raibh maith agat. That's Gaelic for 'thank you'.

More than 120 world leaders and a whole bunch of scientists, activists and businesspeople aren't stopping by to enjoy the soothing sounds of bagpipes, or the taste of Haggis which is, eh, I'll let you look that one up later. They're here for COP26. That stands for Conference of the Parties. It's a big annual climate meeting and, yes, this is the 26th one. COPs are all about getting world leaders together to fight global warming. And there have been some ideas about how to do that.

BORIS JOHNSON, UK PRIME MINISTER: We could feed some of the human beings to the animals.

Umm, here's a better one that most of the world has agreed on, getting to net zero emissions. That means balancing the amount of greenhouse gases we put into the atmosphere with the amount we take out. Many countries have promised to try to do that by 2050 including, just recently, Australia.

SCOTT MORRISON, AUSTRALIAN PRIME MINISTER: This is our plan to hit net zero emissions by 2050.

But it's taken us a while to get here. You see, Australia's economy relies a lot on mining and burning cheap fossil fuels for energy which contributes to climate change. And the government's struggled to agree how to move away from them. But just before leaving for COP, the PM announced a plan to invest billions of dollars in newer technologies and cheaper solar power, which it says will help cut emissions in the coming decades.

SCOTT MORRISON, AUSTRALIAN PRIME MINISTER: Technology will get us there because technology always has.

But some say it's still not enough to stop global warming and Australia's plan's been criticised for not having enough detail.

CHRISTIANA FIGUERES, FORMER UN EXECUTIVE SECRETARY: For me it's a vacuous statement. I want to know how is that going to be done, just to throw the responsibility on others just doesn't cut it.

Australia's Prime Minister isn't the only COP26 guest that's been in the spotlight lately. Brazil's president and Russia's president decided not to show. Hmm, does that have anything to do with the last big climate thing Mr. Putin attended?

TV PRESENTER: The floor is now to the President of the Russian Federation, Mr. Vladimir Putin. Mr. President.

Big awkies. While China's president is expected to video call in hopefully without any glitches. But even a few world leaders down this crew has a lot to talk about. Like keeping global warming to around 1.5 degrees. It's something countries agreed to stay on top of back at COP21 in Paris. But the UN says unless we cut emissions in half by 2030, we're on track to hit more like 2.7 degrees by the year 2100, which is not great news.

ALOK SHARMA, COP26 PRESIDENT: COP26 is our last best hope to keep 1.5 in reach.

So, Glaswegians, along with the rest of the world, will be watching to see how world leaders plan to, well, save the world.

CASSIE: I think if the world leaders were here, I would tell them that if they would try to help like our world and stuff that would be great because climate change is a horrible thing.

HIBA: I think the most important thing is that they can try their best and if they do, then they can make a very big difference.

Kids Response to COP26

Reporter: Amelia Moseley

INTRO: We heard from some kids in Glasgow in that story, but now let's find out what some of you have to say about COP26, climate change, and what we should be doing about it. Take a look.

Are you worried about climate change?

ISABEL: I'm worried about climate change because I don't feel the government's really taking it that seriously because it's not going to affect them in 50 years, but it's gonna affect my generation and all the generations to come.

WILLEM: The sea levels will rise, natural disasters will increase, and animal extinction will be more present. And I just think it's bad. Just because it will destroy humanity.

PRACHITA: We're living on this planet like we have another one to go to. And I think it's a matter that we need to think about a bit more.

D'ARCIE This is the world that I'm going to be growing up in and I can't just jump ship and go to Mars. So that's out of the plan.

Is Australia doing enough?

WILLEM: I think they're doing enough for now, but they will have to change this because to get to net zero,

we have to stop our import and export of coal and fossil fuels. So, that'll be a challenge for the government and the economy.

ISMARIKA: 2019, I remember, ScoMo went to holidays, and everything was going so bad and bushfires, they should take care a bit more, you know, like, get prepared for what's about to happen.

CHIT: I think it's good that we're investing in new technologies, because that can help lower the emissions.

PRACHITA: I think Australia is doing enough. Because we're trying to collaborate the different parties that usually wouldn't work together.

What are your hopes for COP26?

D'ARCIE: So, the net zero by 2050 thing is sort of like an assignment that you need to complete by a very certain date. We need to get this figured out. Spend less time on planning and put in the solutions as soon as possible, so we do not leave it to the last minute.

CHIT: I think the meeting COP26 is gonna lead to good results. Hopefully, the temperature will lower down and stay to 1.5 in the future.

WILLEM: I hope the meetings will lead to tougher, more ambitious targets, but at the same time, not like completely unachievable.

What would you tell world leaders?

PRACHITA: My message to world leaders would be that we should put our differences aside and work towards this problem.

WILLEM: If you're richer and economically stronger than other countries, you should be out there helping them.

ISABEL: Think about the future generations, not just their generation or the one generation after them, but generations, the next 10, 20 30 generations that are going to be affected by their decisions.

News Quiz

First up to South Australia. People there have witnessed some unusual sights in the past week like this one. But what are we looking at? Snow, hail or tiny foam balls? It's hail. Storms across South Australia, New South Wales and Victoria brought strong winds, rain and some unusually large hail. Some measuring centimetres across. The damage caused some schools and shops to close and left a few cars a little worse for wear.

Speaking of storms. Where's this one happening? Here's a clue, the storm's apparently so big it could swallow Earth. Is it on the Moon, Jupiter, or Mars? It's Jupiter. The storm is known as Jupiter's Great Red Spot. It's around 16,000 kilometres wide and NASA's just worked out it's around 500 kilometres deep.

Who is this Australian TV personality? It's Bert Newton. He died at the age of 83. People around the country have paid tribute to the performer who spent decades entertaining Aussies on screen.

And one of the first postage stamps ever printed is going up for auction. It dates back to 1840 and is expected to fetch up to 11 million dollars. What is it called? It's a Penny Black. It was a big deal at the time because it let people in the UK send letters at a flat rate of one penny.

Facebook Metaverse

Reporter: Jack Evans

INTRO: Facebook has just announced it's rebranding to be called "Meta". It's part of the company's big plan to develop a virtual world known as a "metaverse" that people everywhere will plug into. But what does that actually mean? Well, Jack looks for answers.

LIV: What's going on with Jack?

NAT: I have no idea.

JACK: One second Sue, the real world is calling. Hey guys. Sorry, I'm just in a metaverse.

LIV: Where?

JACK: You know, a metaverse. It's like our universe but in digital form. It's very meta, I wonder if that's why it's called a metaverse?

LIV: And what do you do there?

JACK: Oh well, anything you like really. Like right now I'm watching a virtual production of Les Mis. It's very miserable, but the seats are great and later I'm gonna go check out a lil snoop dog concert.

NAT: Oh, I think you mean Snoop Dog?

JACK: No Snoop the cartoon dog. Anyway, I better get back, intermission is almost over, and I've got to take a virtual pee and I wanna get some virtual popcorn before second act starts. See ya.

NAT: Well, that was virtually impossible to understand.

JACK: I can still hear you.

If you're like Liv and Nat here you're probably scratching your head and wondering, what is a metaverse?

JACK: Could I just get one small popcorn? Actually, make it large.

Well, to be honest it's a little hard to explain because according to most people it doesn't really exist yet. But many are calling it the next evolution of the internet. Yeah, it might sound like the stuff of science fiction and that's because it kinda is. There have been plenty of books, TV shows and movies that explore the idea of a metaverse. In these works of fiction humans live their lives in the safety of the virtual world represented by avatars to digitally go to work or school, social events and, well, everything in between and beyond.

It doesn't have to mean saying goodbye to the real world, either. Some think the metaverse, rather than a whole separate thing, will be more like an extended version of what we see. Combining wearable tech and augmented reality to interact with everyday objects and people around us. And many reckon existing video games like Roblox, Minecraft and Fortnite are giving us a glimpse into what could be possible. Fortnite, for example, hosts virtual concerts with real world artists that let attendees move around to watch the show however they want. You can even walk right up to the avatar of the artist. Something that, trust me, doesn't work in the real world.

JACK: You like my hair? Gee thanks I just bought it.

MATT: As I was saying.

Some big tech companies are already working on ways to make metaverses where you can work as well as play. Just last week the guy behind these social media sites, Mark Zuckerberg, rebranded the name of his company to 'Meta' to reflect the metaverse it plans on creating.

MARK ZUCKERBERG: From now on, we're going to be metaverse first, not Facebook first.

Microsoft is also working on its own version that they say will be an exact virtual copy of the real world, that could be used to solve real problems and make real changes to the real world. But before you go grabbing your headsets, if you have one, it could still be a while before we see a metaverse like this. For starters the technology is still being developed. It's going to cost a lot of money and take a lot of power to make one a reality. Then there's the finer details to work out. Like who owns the metaverse? What are the rules? And who would enforce them? How will currency work? Are there other competing metaverses? And will it let me get to meet Beyonce? They're all important questions and some say there are many more important issues to solve before we log out of the real world and into a virtual one.

JACK: Oh, that's better, I couldn't see anything with this on.

Ask a Reporter

Do you have a question about that story? Well, you ask me live on Friday during Ask a Reporter. Just head to our website for all the details.

Elephant Evolution

Reporter: Leela Varghese

INTRO: African elephants are famous for their tusks, but for a long time it's also made them a target for poachers. Now, female elephants in Mozambique are evolving without them and the population there has started bouncing back. So, how does that evolution happen? Well, it's a question one of our viewers wanted to know the answer to as well.

HEMISH: Hi BTN. I'm Hemish from Mortlake Public School. My question for you today is: How do creatures evolve over time? Thank you. Bye.

AMELIA, POLICE OFFICER: So, you're here to report a bunch of missing elephant tusks? Am I reading that right?

LEELA: That's correct. Yes. See, I'm a documentary maker and I've been filming elephants in Mozambique for many years, and I started to notice their tusks disappearing. This is not good for my documentary: Elephants with Tusks. I had to draw those on.

AMELIA, POLICE OFFICER: Right.

LEELA: Here's the thing, I think the elephants are in on it, like they got rid of their own tusks.

AMELIA, POLICE OFFICER: Like they evolved to stop having them?

LEELA: I was going to say magic. Like they're magic elephants. But evolution, tell me more about this evolution thing?

AMELIA, POLICE OFFICER: Why don't you talk to a scientist?

LEELA: Tell me more about this evolution thing?

AMELIA, SCIENTIST: Well, evolution is the theory that all living things change over time.

LEELA: Ahh, even elephants?

AMELIA, SCIENTIST: Oh, I know don't Leela, just ask a real scientist.

LEELA: Hi.

CELINE FRERE, EVOLUTIONARY BIOLOGIST: You are dressed for the occasion.

Celine is an evolutionary biologist, and she says evolution happens through a process called natural selection.

CELINE: Evolution by natural selection means that you're adapting to your environment and then when this environment changes, then you change accordingly.

Take giraffes.

CELINE: Not every giraffe has the exact same length of neck. Some have longer necks, some have shorter necks, and see if suddenly, through let's say climate change, that trees lose their leaves below 20 metres of tree heights, then that would mean that only the giraffes whose neck would be long enough to reach above 20 metres, would be able to feed themselves, would be able to survive and therefore breed.

LEELA: But how does this explain the tusks?

Well, while selling elephant tusks is illegal, ivory is also worth a lot of money. So, for a long time the animals have been a target for poachers because their ivory is turned into things like jewellery. Between 1977 and 1992 Mozambique was caught up in a civil war. During that time up to 90 percent of Mozambique's elephant population was killed. Both male and female African elephants typically have tusks, they're basically overgrown teeth. But every so often some females don't, those weren't hunted, so they were able to have babies and pass on their tuskless genes. Now they're a common sight. What's got people so shocked though is how quickly this evolution has happened.

CELINE: We are taught at school that evolution occurs through you know millions of years. But in recent years, the impact that humans have had on planet Earth is driving very rapid changes in the environment.

A tusk free life, even if it protects you from poachers, isn't necessarily a good thing. Tusks help elephants defend themselves, strip tree bark for food and dig holes for water. But there's another problem. While we can see the tuskless gene is passed on in female elephants, there aren't any tuskless males. Which could mean eventually females will far outnumber males and that's not good for their long term survival either.

CELINE: I think it's incredible that they've adapted and that they've managed to survive but how many more of those can they take before it will lead to them going extinct.

LEELA: Will the elephants be okay?

CELINE: We need to leave them alone. And we need to protect them. And they will be okay.

LEELA: Turns out it was evolution in the end.

AMELIA, POLICE OFFICER: Who keeps letting you in here.

LEELA: I came through the window.

Quiz

Which of these is not a living species of elephant? The African bush elephant, African forest elephant or the Asian elephant? It's a trick question. They all are. But for a long time, the African elephant was treated as a single species.

Sport

Australia's T20 World Cup match with England did not go to plan. The Aussies managed just 125 runs from their 20 overs which England chased down with ease. England keeper Jos Buttler top scored whacking 71 from 32 balls.

Kyle Chalmers has just smashed a 13 year old world record. He swam a blistering 44.84 seconds in the short-course 100 metre freestyle at a World Cup meet in Russia. Meanwhile, Olympic superstar Emma McKeon was crowned overall world champion capping off an unbelievable year.

Aussie golfer Lucas Herbert has just won the PGA's Bermuda Championship. The 25 year old pocketed 1.5 million dollars in the process. It's his first year on the PGA tour so this is a pretty good start.

Finally, is this the goal of the year? This goal by Dairon Asprilla in the USA's Major League Soccer has been going viral with many saying it is the best goal of the year. I think they might be right.

Space Seeds

Reporter: Olivia Mason

INTRO: And finally, today, let's meet some kids who are taking part in a national experiment. They're planting wattle seeds that were sent into space to see if that changes how they grow here on Earth. 270 schools are taking part and Liv went along to one to see how the experiment's going. Check it out.

When it comes to flora it doesn't get more Aussie than the golden, fuzzy wattle. I mean, it's our national emblem after all. And these guys are getting ready to plant some. But they're not just any old wattle seeds, these seeds have been to space.

ERICA: The seeds went up to the JAXA Space Station for six months and they came back down to Japan around about when the Olympics were this year. And then they were in a bio place for a few weeks, so that they could check it if it had any diseases or anything. And then they came back and were given out to all the schools that got the seeds.

You see these seeds are part of a big national experiment to see if spending time in space, changes the way the wattle grows. And these students at Trinity Gardens in South Australia make up just one of the groups across 270 schools who are taking part.

OLIVIA: This has never been done before. So, I wanted to see what would happen.

They'll be planting two types of seeds. Some that have been to space and some that have just stayed here on boring old Earth.

OLIVIA MASON, REPORTER: Each school around the country will plant their space travellers' seeds and their planet Earth ones into the same soil so that it's the same conditions for everyone. So, shall we get planting?

KIDS: Yeah.

ERICA: We plant them in a mini greenhouse until they've grown a little bit, and then we'll plant them somewhere around our school.

JALEN: And then eventually once they grow, we're going to be monitoring the process of the growth and seeing if anything different is going to happen from the normal model seeds. We have an app that we're gonna monitor all of it and it will be sent to the assigned people who will monitor and see what will happen in the future.

Of course, what's an experiment without a good theory, and these guys have some good ones or rather strange ones.

OLIVIA: I think the craziest thing would be if we could fly, because they have been up to space.

ERICA: That when you touch them, you start floating.

JALEN: I think the craziest thing that could happen is aliens, like appearing out of them once they've grown.

They'll have to wait a little while to see if the seeds grow or give them special floating powers. But these guys say it's been really cool taking part in such a big and spacey experiment.

ERICA: It's been really exciting. And we get lots of different opportunities that we wouldn't really usually get at school.

Closer

Great work. Well, that's it for another week, thanks so much for watching. As usual, we've got heaps of stuff online that you can check out during the week including more videos and teacher resources. There's also our YouTube channel if you're 13 or over and Newsbreak will keep you up to date every weeknight. Stay safe and I'll catch you next week. Bye.