

**EPISODE 22**  
12 August 2025

**KEY LEARNING**

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

**CURRICULUM**

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

**English – Year 5**

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

**English – Year 6**

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

**English – Year 7**

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

Teacher Resource

**Focus Questions**

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

# Israel Gaza Announcement

1. Where is Gaza? Locate Gaza on a map and highlight the surrounding countries.
2. Who is the Prime Minister of Israel?
3. What announcement did the Prime Minister of Israel make recently?
4. What did the Australian Prime Minister announce regarding Palestine?
5. What questions do you have about the story?

# Plastic Treaty

1. What decade did plastic become widely used?
   1. 1900s
   2. 1950s
   3. 1990s
2. Why did plastic become so popular? Give 2 reasons.
3. When did people start to become concerned about plastic waste?
4. Plastic doesn’t take long to decompose. True or false?
5. What are some countries doing to reduce their plastic waste? Give one example.

# Dental Hygiene

1. How often should we be cleaning our teeth?
2. You shouldn’t eat or drink for half an hour after cleaning your teeth. True or false?
3. Why is it important to floss your teeth?
4. What is the layer of bacteria called that can build up on your teeth?
   1. Dentin
   2. Enamel
   3. Plaque
5. What is the correct way to clean your teeth? Write a short procedure.

# Crystal Creation

1. What are crystals?
2. Give two examples of crystals.
3. Sugar is a type of crystal. True or false?
4. What is the most common way crystals are formed?
5. What kind of structure do crystals have?

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

# Maths Hoop Champion

1. Oscar is the first Aussie to win the NBA Math Hoops Global Championship. True or false?
2. Maths Hoops combines two of Oscar’s passions. What are they?
3. When did Oscar first start playing Maths Hoop?
4. How does the game work?
5. What did you like about this story?

# Fourth-Generation Pilot Katie

1. Which country did Katie’s great grandfather fly with in the Air Force?
2. Katie is the second female flyer in her family. True or false?
3. What type of plane did Katie start getting lessons in?
4. What preparation does Katie do before flying?
5. How does Katie feel when she is flying?



**EPISODE 22**  
12 August 2025

**KEY LEARNING**

Students will learn about the structure of crystals. Students will guide their own scientific investigation into crystals.

**CURRICULUM**

**Science – Year 4**

Pose questions to explore observed patterns and relationships and make predictions based on observations

**Science – Years 5 & 6**

Pose investigable questions to identify patterns and test relationships and make reasoned predictions

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

Teacher Resource

**Crystal Creation**

# Focus Questions

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

1. What are crystals?
2. Give two examples of crystals.
3. Sugar is a type of crystal. True or false?
4. What is the most common way crystals are formed?
5. What kind of structure do crystals have?

# Activity: What do you see, think & wonder?

After watching the BTN Crystal Creation story hold a class discussion, using the following as discussion starters:

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

**Questions and Answers**

A picture containing text, vector graphics

Description automatically generatedAll scientific discoveries start with a question! As a class, come up with some questions you think scientists ask and solve. Organise the questions into common themes. As a class, make a list of questions that you would like to ask a scientist.

**After** watching the BTN story start a discussion, asking what your students learnt and what they want to know. Students can use the KWLH chart to help organise their information.

|  |  |  |
| --- | --- | --- |
| **What I know** | **What I want**  **to know** | **What I learnt** |
|  |  |  |
|  |  |  |
|  |  |  |

# Activity: Crystal Glossary

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

|  |  |  |
| --- | --- | --- |
| CRYSTALLOGRAPHY | PATTERNS | GEOMETRIC |
| LATTICE | CRYSTALS | ATOM |

Ask students to write what they think is the meaning of each word (including unfamiliar words). They will swap definitions with a partner and ask them to add to or change the definition. Check these against the dictionary definition.

**Further activities for students:**

* Students will add to their glossary by downloading the transcript for the BTN Crystal Creation story and highlight all the words that relate to the topic.
* Who studies crystals? Explore the job of a crystallographer. Later in this resource students will think and behave like crystallographers (*A crystallographer is a scientist who specialises in the study of crystals*).

# Activity: Examining Crystals

Provide your students with opportunities to examine crystals and make observations about them. Students may want to bring crystals in from home if they have some or they can visit a museum (real or virtual) to explore their crystal collections.

Spark a discussion about crystals in your classroom by using one or more of the following questions. Record your students’ responses on a mind map, with the word CRYSTAL in the centre.

* A picture containing text

  Description automatically generatedHave you ever looked closely at crystals or collected them?
* Where would you look to find crystals?
* What do crystals feel and look like? Describe the characteristics of crystals. Are they heavy or light? What colour are they? Do they have texture?
* How are crystals the same and how are they different? Use a Venn diagram to record what you discover.
* What can you use crystals for?
* What is the relationship between crystals, minerals and rocks?

Encourage students to discuss what they already know about crystals and prompt them to ask questions they might have. Record your students’ responses on a KWLH chart.

**Activity: Scientific Investigation**

Students will guide their own investigation into crystals and present their findings in an interesting way. Below are some ideas to get students thinking about the direction of their investigation.

* **DIY crystal growing** – Grow sparkling crystals and explore crystal structure using this Science Week step-by-step investigation. [Link to instructions](https://www.scienceweek.net.au/diy-science/).
* **What does sugar, salt, snowflakes and quartz all have in common?** Use a Venn diagram to compare and contrast different types of crystals.
* **Up close with crystals –** Use a magnifying glass to examine the fine details and structures of crystals. Record what you see including shapes, colours, patterns, and surface textures. What do you notice? Record as much as you can about what you see.
* **If crystals could talk –** Imagine you are interviewing a crystal. What questions would you ask a piece of mineral quartz or a snowflake? Find answers to those questions.
* **The story of a crystal -** Write or illustrate a story about crystals (choose one type of mineral crystal, for example, amethyst, malachite, quartz or amethyst). Use story telling techniques to teach others about crystals, how they form and what they tell us about Earth’s history.

# Activity: TEDEd – Watch, think, dig deeper and discuss

Many crystals have signature shapes— like the cascade of pointed quartz or a pile of galena cubes. Every crystal’s atoms have a defining feature: their organised, repeating pattern. The pattern isn't restricted to minerals- sand, ice, metals and DNA also have crystalline structures. So, what causes them to grow into these shapes again and again? TEDEd dives into the unique properties of crystals.

Students will watch this TedEd video [How do crystals work?](https://ed.ted.com/lessons/how-do-crystals-work-graham-baird) to learn more about crystals.

After watching the video students can test their knowledge on crystals by doing the related [TEDEd quiz](https://ed.ted.com/lessons/how-do-crystals-work-graham-baird/think).

TedEd video [How do crystals work?](https://ed.ted.com/lessons/how-do-crystals-work-graham-baird)

# Useful Websites

* [Science stories](https://www.abc.net.au/btn/science/10554180) – BTN
* [DIY Science](https://www.scienceweek.net.au/diy-science/) – National Science Week
* [Crystal Investigation](https://www.oliphantscienceawards.com.au/event_information/award_categories/crystal_investigation) – Oliphant Science Award
* [How do crystals work?](https://ed.ted.com/lessons/how-do-crystals-work-graham-baird) – TEDEd
* [How to squeeze electricity out of crystals](https://ed.ted.com/lessons/how-to-squeeze-electricity-out-of-crystals-ashwini-bharathula) – TEDEd
* [National Science Week 2025](https://www.scienceweek.net.au/)



Teacher Resource

**BTN Transcript: Episode 22 – 12/8/2025**

Yaama, I'm Jack Evans and you're watching BTN. Here's what's coming up. We find out what went down at this UN plastic convention, learn why dental hygiene is so important and meet a 13-year-old who grows her own crystals.

# Israel Gaza Announcement

Reporter: Nic Maher

*INTRO: But first, over the past week there have been some really big updates about the situation in Gaza. Nic takes a look at what's happened.*

NICHOLAS MAHER, REPORTER: Last week Israel's Prime Minister announced plans to take full control of Gaza City.  
  
BENJAMIN NETANYAHU, PRIME MINISTER OF ISRAEL: This is the best way to end the war and the best way to end it speedily.   
  
At the moment, Israel controls about three quarters of the Gaza strip. But this new announcement, that Israel will be sending its military into Gaza City where hundreds of thousands of Palestinians live, has a lot of people worried.  
  
JAMES KARIUKI, UK AMBASSADOR TO THE UN: This decision is wrong, and we urge the government of Israel to reconsider immediately. This is not a path to resolution. It is a path to more bloodshed.   
  
The Israeli government says it has no other option. It wants to put pressure on Hamas, the terrorist group which controls Gaza, to surrender and release the hostages it took when it attacked Israel on October 7th, 2023. But, many in Israel believe this plan will actually make the hostages less safe.  
  
Over the weekend thousands of Israelis, including the relatives of some of the hostages, took to the streets to protest calling for an end to the war.  
  
HOSTAGE RELATIVE: My husband is still there. Every invasion, every bullet, every air strike could cost him his life.   
  
The United Nations and governments around the world, including Australia, have been quick to criticise the plan. With many saying it'll only make the situation worse.   
  
ALESSANDRA VELLUCCI, UNITED NATIONS SPOKESPERSON: This would risk catastrophic consequences for millions of Palestinians and could further endanger the lives of the remaining hostages in Gaza.   
  
SAMUEL ZBOGAR, SLOVENIAN REPRESENTATIVE TO THE UNITED NATIONS: It will also worsen the already catastrophic humanitarian situation in Gaza.

MARK CARNEY, PRIME MINISTER OF CANADA: We reiterate our call for an immediate cease fire.  
  
ANTHONY ALBANESE, PRIME MINISTER: We have a humanitarian catastrophe unfolding there and the idea that it can just be continued is completely unacceptable.

The United Nations and humanitarian organisations have been warning for months that Palestinians are facing a worsening hunger crisis and that a ceasefire is needed to make sure enough aid can safely get into the hands of starving Palestinians.  
  
This week the Australian government made the historic decision to join the likes of Canada, France and the UK in recognising a state of Palestine at the next United Nations meeting in September.  
  
ANTHONY ALBANESE: Australia will recognise the right of the Palestinian people to a state of their own.  
  
Right now, more than 140 nations already recognise Palestine as its own independent country. The Prime Minister said the decision was only made after getting a number of guarantees from Palestinian officials, including that Hamas won't have a role in a future Palestinian state.   
  
ANTHONY ALBANESE: This is an opportunity to deliver self-determination for the people of Palestine in a way that isolates Hamas, disarms it and drives it out of the region once and for all. A two-state solution is humanity's best hope to break the cycle of violence in the Middle East and to bring an end to the conflict, suffering and starvation in Gaza.

# News Quiz

Thousands of people in Southern France have been forced to flee their homes because of a major wildfire. Officials say it's the biggest wildfire France has seen since when. 1959, 1949 or 1939? It's 1949. The fire has burnt more than 15,000 hectares and thousands of firefighters are working hard to bring the blaze under control.

Italy has accused which fast fashion company of greenwashing? Is it Shein, Shine or Shone? It's Shein. Last week Italy hit Shein with a $1.7 million greenwashing fine saying that the retailer has been misleading customers to believe that some of their products are more environmentally sustainable than they actually are. Shein says they've now updated their website to make sure their environmental claims are clearer and easier to understand.

Who is this singer? It's Jessica Mauboy, and she was just inducted into the NIMA Hall of Fame at a ceremony held in Darwin over the weekend. The National Indigenous Music Awards honour the country’s most outstanding First Nations talent. Emily Wurramara took out both artist and film clip of the year. Meanwhile Bulman School and Community won community clip of the year with their song Crocodile Style

SINGERS: *Korlomomo has a long, skinny nose, He lives down low where the fresh water flow.*

And a study has found that cockatoos have 30 distinct what? Screeches, dance moves or facial expressions? It's Dance moves. Researchers at The Charles Sturt University studied videos of cockatoos dancing on social media and identified 30 distinct moves. They're not entirely sure what motivates the cockatoos to dance but reckon it's most likely because it's fun.

# Plastic Treaty

Reporter: Joseph Baronio

*INTRO:* *Delegates from more than 170 countries have met in Switzerland to find a solution for plastic pollution. Joe found out how this once-revolutionary invention became one of the most pressing environmental challenges of our time. Take a look.*

MELANIE BERGMANN, ALFRED WEGENER INSTITUTE: We find plastics everywhere we look, from the deepest ocean trenches up to the Himalayan mountains.

INGER ANDERSEN, UNITED NATIONS ENVIRONMENT PROGRAMME: The impacts are here and now. And we have to stop this from spiralling out of control.

JOE BARONIO, REPORTER: These are the concerns many experts around the world share, and it's why they, along with diplomats from 184 countries, have met at the United Nations in Geneva, Switzerland, in the hope that they can negotiate and agree on a treaty to end plastic pollution once and for all.

LUIS VAYAS VALDIVIESO, INTERGOVERNMENTAL NEGOTIATING COMMITTEE ON PLASTIC POLLUTION: This is a challenging task, but a deeply necessary one.

It's hard to imagine a world without plastic in it, especially when so many everyday items contain some kind of plastic, like containers, bags, utensils, toys, electronics, clothes, building materials, sports equipment, and whatever this thing is.

Plastic has been with us for a really long time, but it wasn't until the 1950s and 60s that plastic really started to take off. It was long-lasting, easy to clean, and cheap to make; so cheap that eventually people didn't bother to clean, and reuse it, and the era of throw-away living or single-use plastics was born.

But by the 1970s, it started to become clear that all this plastic waste was a problem, and lots of people were concerned about its impacts on the environment.

BOB GOODALE, NATURALIST: They can cause this traumatic time for such a beautiful little animal.

See, plastic takes a really long time to decompose. In fact, nearly all plastic ever created still exists in some form today. A lot of it ends up in landfill, but it also makes its way into our waterways and oceans, and as it slowly breaks down, it turns into microplastics.

DR. LOREN WOLD, THE OHIO STATE UNIVERSITY: Microplastics have actually been found in all organ systems. So, a recent study that came out showed that these microplastics were actually present in brains, on autopsy. They've also been found actually in babies, in the first poop from a baby, they've been found. So obviously that means that these microplastics have been circulating within the mother's circulation and exposed to the baby in the womb.

People have been taking action to stop plastic waste for a long time now. Bangladesh was the first country in the world to implement a ban on thin plastic bags in 2002, and here in Australia, plastic bags were first banned in South Australia back in 2009, followed by straws and cutlery in 2021, and containers, cups, bowls and plates in 2022 and 2023.

There have also been lots of improvements in the way we recycle and reuse plastics, but there's still a lot of plastic floating around out there. In fact, it's estimated that more than 7.2 billion tonnes of plastic waste is currently contaminating our environment, and that number is growing by about 417 million tonnes every year. But the UN Intergovernmental Negotiation Committee on Plastic Pollution is hoping to change that for good. They spoke about ways to cut plastic pollution, limit plastic production, and manage harmful chemicals in plastics.

INGER ANDERSEN: It begins with having global rules. That's really it. And that's what this treaty will enable.

While many support the treaty, not all countries have been able to agree on how far the rules should go, and with the conference wrapping up later this week, we'll have to wait and see what happens next.

# Dental Hygiene

Reporter: Kushi Venkatesh

*INTRO: How often do you brush your teeth? Well, a new study by the Australian Dental Association found that many Aussie kids aren't brushing enough. Kushi found out why building good habits early is so important.*

STUDENT: Well we brush our teeth so they can stay nice and healthy and so they don't get cavities.

STUDENT: I know that when people look after their teeth, they would have to like, brush like either, two times a day.

STUDENT: There's a lot of bacteria and also food that's unbrushed, which turns into plaque.

KUSHI VENKATESH, REPORTER: Yep, we all know that taking care of our teeth is super important. We use them to eat, to talk, to sing and of course to smile. But it turns out a lot of Aussie kids aren’t brushing their teeth as much as they should be.

A recent survey by the Australian Dental Association or ADA, found that while 68% brush their teeth twice a day, 21% only brush once a day, which according to experts isn't enough to keep our teeth healthy.

REBECCA CARSLAKE, DENTAL THERAPIST: You should brush your teeth twice a day. Once in the morning, once at night, and important not to eat or drink for about half an hour afterwards.

KUSHI: This is Rebecca she’s a dental therapist and she says, along with brushing twice a day, you also should be flossing regularly.

STUDENT: I do floss my teeth quite often.

STUDENT: Maybe like once a week or something.

STUDENT: Sometimes it's when I can actually, like, feel the food.

KUSHI: Flossing is important because it helps clean the spots where our toothbrush can’t, it also prevents cavities and helps take care of bad breath. But according to the ADA 76% of Aussie kids never floss.

REBECCA CARSLAKE: So, we recommend flossing from 2 years of age when the teeth are starting to touch together, usually with an adult’s assistance, and an adult might need to assist until around 8 or 9 years of age and that's when you may feel more capable to floss by yourself.

KUSHI: Then there are sugary drinks. The Australian Dental Association found that 38% of kids drink fizzy drinks 2-5 times a week and 27% of kids have fruit juice every day.

REBECCA CARSLAKE: And if you're snacking on sweet foods and drinks too often, it means that the amount of time your teeth are in contact with acid increases, and so does your risk of tooth decay.

KUSHI: That happens when a layer of bacteria called plaque starts building up on your teeth. The bacteria feeds on the sugar in the foods and drinks you consume and makes an acid which weakens the protective layer of your teeth called enamel. As the enamel weakens it can lead to cavities or holes in your teeth and if left untreated those cavities can turn into tooth decay which can cause you pain, your tooth can get infected, and the dentist might need to take it out.

DR GREGORY OOI: One thing we recommend often here for children is if you've had something sweet to eat just have a good drink of water to get the sugar of the teeth.

KUSHI: So how should we be brushing our teeth?

REBECCA CARSLAKE: Well, you've got to remember to be cleaning the outside areas, the inside surfaces and the parts that you chew with. So, when you're brushing, make sure that the bristles are pointed towards your gum. And we want you to be doing lots of gentle circles around your teeth, you need to do every single tooth in your mouth, outsides insides chewing areas, and that should take one minute and then you repeat on the lower jaw.

KUSHI: And should we be brushing our tongue?

REBECCA CARSLAKE: You can certainly brush your tongue afterwards, because we do have bacteria on our tongue too

KUSHI: Rebecca says it's important to learn this stuff early, so that when you get older you can continue to use your chompers, to eat, speak, sing and smile.

# Quiz

Which of these animals don't have teeth? Slugs, snails or snakes? It's a trick question they all have teeth.

# Crystal Creation

Reporter: Wren Gillett

*INTRO: This week is Science week and to celebrate Wren caught up with Diya a budding young scientist who recently won an award for her project exploring the art and science of crystal creation. Take a look.*

WREN GILLETT, REPORTER: Diya.

DIYA, BUDDING SCIENTIST: Oh hi. Nice to meet you.

WREN: Wonderful to meet you. Now I heard you know a thing or two about crystals?

DIYA: Yeah. Should I show you a few of them?

WREN: Yeah. Let's go.

Crystals. They're solids, made up of atoms or molecules arranged in a repeating pattern. They come in all shapes and sizes, and many different forms. There's amethyst, quartz, rose quartz, Moldavite, citrine, diamonds. As well as some you probably use all the time without realising, like salt and sugar. These types of crystals form naturally, but you can also grow crystals yourself. Something Diya is pretty fabulous at.

DIYA: Tadaa. These are my crystals which I made through a process called crystallisation.

Crystallisation can happen a few different ways, but the most common is when liquids either cool down or evaporate. For example, quartz is made when melted rock or magma cools down really slowly deep underground. Salt crystals, on the other hand, form when salty water evaporates. Diya's crystals use the evaporation method.

DIYA: We start with our aluminium potassium sulphate. We have to measure 30 grams of it and then place it into our beaker. After that, measure 200 millilitres of distilled water and pour it in and then just mix it with the stirring rod until it becomes completely dissolved in the water. Once you've mixed these two together, we leave it in a controlled environment. AKA. Like a dark environment where, like, it's not disturbed. And then after a few days, you'll see that tiny crystals have formed. These are some of them.

WREN: Let's have a look.

DIYA: These are seed crystals. When I made the seed crystals it took about a week-ish to grow, so I actually wrote a poem about it.

WREN: A poem?

DIYA: When I was waiting, I was like too excited.

Seed crystals are small crystals that act as a sort of template for bigger crystals to form.

DIYA: You just basically just place it in like dangling on top and then place it in the same controlled area, and soon you'll see large crystals.

In total, Diya made 14 crystals. Slightly altering her method with each one. And over about 10 weeks, she documented how each of them grew and the changes she saw.

DIYA: In the report, I included a logbook which is basically like what I did each day, so I can be like oh, today I made the seed crystal, or I can be today I tied up my crystal to make my main crystal.

WREN: So, like a diary. But for your crystals?

DIYA: Yeah.

WREN: I love it.

At the end of it all, she entered her report into a science competition, called the Oliphant Science Awards. And guess what. She won.

DIYA: I was like so shocked cause like it's my first time making the crystals and so I was like, oh, maybe we're it won't go that well something like that. But when I when I found out that I had won, I was like, wait. Oh. Oh yay.

WREN: Yeah. You're clearly very good at it. And because you're so good at it I'm wondering, would you make me a crystal?

DIYA: Absolutely crystal scientist. Do you wanna pick your colour.

WREN: Yes! yay.

# Did You Know

Did you know snowflakes are crystals? They form when water vapor in a cloud freezes onto a tiny speck of dust. As it falls the temperature and humidity change its shape making every snowflake one of a kind.

# Sport

It was a big turnout at this year’s City to Surf run. 90,000 people braved the rain and took part in a 14-kay run or walk from Sydney's CBD to Bondi Beach. While the event is about raising money for charity, it wouldn't be a race without some winners. Isaac Heyne took first place in the men's comp with a time of 40 minutes and 33 seconds.

ISAAC HEYNE, RUNNER: Beat last year's time by 20 or 30 seconds. So, yeah, look, that's a sign I'm in shape.

And in the women's, it was Bronte Oates who secured the top spot with a time of 45 minutes 51 seconds.

BRONTE OATES, RUNNER: It's crazy. I've always wanted to win. I'm so excited. Yeah!

Meanwhile in Tennis, 18-year-old Victoria Mboko has taken out her first WTA title. The Canadian defeated 3 grand slam champions on her road to the final, where she took on former world number 1 Naomi Osaka.   
It was a rough start for Mboko after Osaka dominated the first set, but she quickly turned the match around in the second set sealing the title 2-6, 6-4, 6-1.  
  
And 14-year-old Benjamin Castenskiold from Denmark has just secured the world title in surf freestyle at the GWA Wingfoil World Tour. If you hadn't worked it out, Wingfoiling is where you use a handheld wing while standing on a board to glide above water. Not only was this Benjamins debut season, he's also made history as one of the youngest world champions in the sport.

# Math Hoops Champion

Reporter: Tatenda Chibika

*INTRO: Now we're going to meet Oscar from Adelaide who's just won a big maths competition in New York thanks to some practice from his classmates. Here's Tatenda.*

Yup. Ten-year-old Oscar has just become the first Aussie to win the NBA Math Hoops Global Championship.   
  
OSCAR, MATH HOOPS CHAMPION: I was actually speechless. For a kid who always talks about basketball and math I didn't have anything to say.  
  
He and his teammate Kingston went up against 24 other teams.  
  
OSCAR: I was just like, they all look amazing, but I think I could actually win.  
  
And at the end of the three day competition, they walked away with the glass trophy. He first started playing the game in maths.   
  
OSCAR: It was so fun combining my passions, basketball and maths.  
  
How the game works is the students first pick players for a team, just like they do in the NBA Drafts. Then they have to solve math problems to take basketball shots, and if they get them right, they score points, and the team with the most points wins. They say the game has actually made maths a bit more fun.  
  
STUDENT: Some math lessons are quite good now.  
  
STUDENT: Yeah.  
  
And hope other kids will take up the game too.  
  
OSCAR: It's just so fun.  
STUDENT: If you don't make it that doesn't matter at least you learned.

STUDENT: And you tried.

STUDENT: Yep.

# Fourth-Generation Pilot Katie

Rookie Reporter: Katie

*INTRO: Finally, Over the next few weeks we're going to meet some of the winners of this year’s Heywire competition. It asks young people living in regional areas to share stories about things that are important to them. This week we'll meet Katie a fourth-generation pilot and the first female flyer in her family. Check it out.*

I'm the 4th generation flyer in my family. My great grandfather flew with the Air Force in Egypt. My grandfather is a private pilot and so is my dad. Now here I am, the first female flyer in our family.

When I was young my mum told me I could be a pilot one day, but it wasn't until a joy flight a few years ago that I really fell in love with flying. I started getting lessons in a Cessna 152. Now I have more hours in the air than I do in a car. There's a lot to think about even before I get out of the hangar. Preflight cheques, weather conditions, fuel load and flight paths to name a few.

INSTRUCTOR: All right, preflight complete.

KATIE: Yes, we've just got 4 quarts of oil, we just need a refuel.

INSTRUCTOR: OK, let's do that.

Out in the apron, I check the engine is running smoothly. Then I make a radio call.

Traffic Bathurst. Cessna 152 Tango Echo Bravo is taxiing for the main apron to runway 354 circuits.

I was born with mild to moderate hearing loss in both ears, so I use a headset that adjusts for my audio levels. I do a final check of the wind and other aircraft. Then I taxi to the active runway and line up. Right before I fly, I take a moment, breathe, hands and feet on the controls, bottle forward, the nose lifts off the ground and I'm airborne.

I feel free when I'm flying. The only thing that's missing is more female voices on the radio. It was a big deal the first time I heard one.

Bathurst traffic. Mooney, Victor, Mike joins downwind for Runway 35.

More women are finding their place as pilots and I'm excited to be a part of that. I want other young women to feel the joy of flying. It's pure elation.

**Closer**

Well, that's all we've got for you, but we'll be back before you know it. If you miss us in the meantime, you can catch newsbreak every weeknight. There's also heaps to see and do on our website. Have an awesome week and I'll see you next time. Bye.