



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.

Morocco Earthquake

1. Where is Morocco? Find on a world map.
2. Which city in Morocco was affected by the earthquake recently?
 - a. Marrakech
 - b. Fes
 - c. Casablanca
3. How has the disaster impacted people?
4. How are other countries helping people in Morocco?
5. How did this story make you feel? Discuss as a class.

What is the Reserve Bank?

1. What does RBA stand for?
2. The RBA is also referred to as...
 - a. Australia's central bank
 - b. Australia's primary bank
 - c. Australia's principal bank
3. What year did the Australian government decide to create a separate reserve bank?
4. What does the RBA do?
5. What questions do you have about this story?

Shark Nets

1. In pairs, discuss the Shark Nets story. Record the main points of your discussion.
2. Which states in Australia use shark nets?
3. In NSW the shark nets aim to protect the public from which three shark species?
 - a. Bull, Whale, Tiger
 - b. White, Bull and Tiger
 - c. Grey Nurse, Tiger, White
4. What are the advantages and disadvantages of using shark nets? Record your answers on a T chart.

EPISODE 27

19th September 2023

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.

5. Should shark nets be used on some beaches in Australia? Give reasons for your answer.

Check out the [teacher](#) resource on the Archives page.

Fierce Girls

1. What is the Fierce Girls podcast?
2. Who did Yashika write about for her Fierce Girls story?
3. Who is Chloe Hayden?
 - a. An actor, author, and advocate
 - b. An activist, athlete, and teacher
 - c. An astronaut, writer, and chef
4. Describe the process of making a podcast.
5. On what special day is Eva's podcast being released?

Check out the [teacher](#) resource on the Archives page.

Nova Rover

1. What is a Nova Rover?
2. Where is the international competition for rover builders being held?
 - a. The Moon
 - b. Monash, NSW Australia
 - c. Utah, United States
3. What skills are required to build a robot?
4. What does the Nova Rover look like? Describe.
5. What did you learn watching this story?



Teacher Resource

Shark Nets

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. In pairs, discuss the Shark Nets story. Record the main points of your discussion.
2. Which states in Australia use shark nets?
3. In NSW the shark nets aim to protect the public from which three shark species?
 - a. Bull, Whale, Tiger
 - b. White, Bull and Tiger
 - c. Grey Nurse, Tiger, White
4. What are the advantages and disadvantages of using shark nets? Record your answers on a T chart.
5. Should shark nets be used on some beaches in Australia? Give reasons for your answer.

Activity: Note taking

Students will practise their note-taking skills while watching the BTN Shark Nets story. After watching the story, ask students to reflect on and organise the information into three categories. What information in the story was positive, negative, or interesting?



Activity: Discussion

Working in pairs or small groups, students will discuss the BTN Shark Nets story using the following questions as a guide.

- What are shark nets and why are they used in some places?
- What are some concerns about shark nets?
- How effective are shark nets?
- Are sharks important to the marine ecosystem? Explain your answer.
- What are some different methods of controlling sharks?
- How can we protect both swimmers and sharks in the ocean?

EPISODE 27

19th September 2023

KEY LEARNING

Students will choose a species of shark to learn more about. They will also explore the debate about the use of shark nets on some beaches.

CURRICULUM

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 the physical conditions of their environment.

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

Science – Year 7

Science and technology contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations.

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

Glossary

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

SHARK NET	MARINE	APEX PREDATOR
SPECIES	DETERRENT	ECOSYSTEM

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.

Activity: Shark profile

Students will research and write a profile featuring a species of shark. Students can use the animal profile worksheet at the end of this activity to record their findings. Encourage students to use a range of sources to find their information. Shark species to choose from include:

- Hammerhead
- Great white shark
- Whale shark
- Tiger shark
- Bull shark
- Grey Nurse shark

Research

Students will research the following and then share their research findings with the class or create a display in the classroom. Students can use the Animal Profile at the end of this activity.

- Illustration or photo
- Name (common and scientific name)
- Conservation status – What is being done to protect the species?
- Appearance
- Adaptations
- Habitat
- Threats
- Unique features



Further Investigation

Students will respond to one or more of the following questions.

- Research some specific adaptations sharks have made to survive in particular habitats, for example, body shape, colour, tails and fins. Give an oral presentation explaining the adaptations.
- How does each of the shark's five senses help them search for prey? Draw a diagram to show your learning.
- Why are sharks an important part of the marine ecosystem?
- Why are sharks important predators?
- What threats exist to shark populations?
- Create a poster that explains the shark's role as predator and threats to their existence.
- Predict what might happen if sharks are removed from the food chain.
- Why do we need to look after sharks?

Activity: Persuasive Text

Students will explore the issues raised in the BTN Shark Nets story and develop a persuasive text for or against the following statement: *'Shark nets should be banned at beaches to protect marine life'*. Students will investigate the environmental, safety and moral/ethical issues related to shark nets being installed on some beaches in Australia.

Persuasive writing

Students need to weigh up the pros and cons of the issue then write a short persuasive argument using the following as a guide.

Tips

- Who is your audience? For example, are you directing your argument at kids, teachers, or politicians?
- Explore how language choices can have a big impact on persuading your audience.
- Which language devices give the report credibility and authority?
- Which are designed to create an emotional response in the listener?
- Provide facts and evidence to support your argument.
- Write in the present tense.
- Check your spelling and punctuation.

Use this *Read Write Think* [persuasion map](#) to plan your exposition text.

Introduction

- What is the point you are trying to argue?
Construct an introductory paragraph which states the issue or topic.
- Introduce the arguments that will be developed in the body of the text.

Body

- Construct arguments that support your point of view.
- Each paragraph starts with a topic sentence which introduces each point.
- The rest of the paragraph gives more reasons.
- Arguments can be ordered from strongest to weakest.

Conclusion

- Restate your position on the argument.
- Construct a concluding paragraph that provides a summary of your arguments and a call to action.

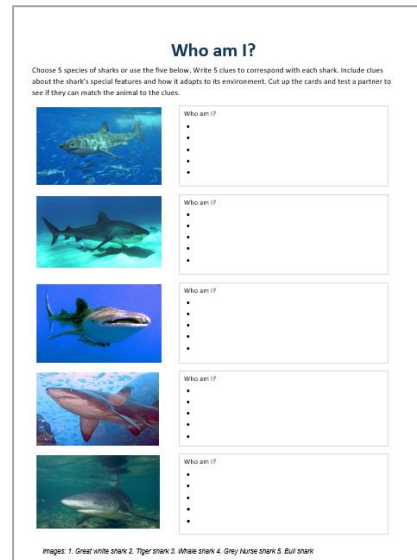
Reflection

- How difficult was it to think of points to support one side of the argument?
- Do you think you would have done a better job supporting the other side of the argument?
- Was I able to convince others of my opinion?
- What did you learn from this activity?

Activity: Who am I?

Students will make their own *Who am I?* game to learn more about shark species.

- Students will research and write 5 clues to correspond with each species of shark in the *Who am I?* worksheet at the end of this activity, with the first clue being the hardest and the last clue being the easiest.
- Include clues about special features, appearance, adaptations and any threats.
- Students will test their game on a partner.



Useful Websites

- [Shark net program to return to NSW beaches amid calls for program to be scrapped](#) – ABC News
- [Do shark nets really keep us safe or are there better options?](#) – ABC News
- [Why oceans need sharks](#) – Australian Museum
- [Shark Species](#) – Australian Museum
- [What is a shark?](#) – Australian Museum

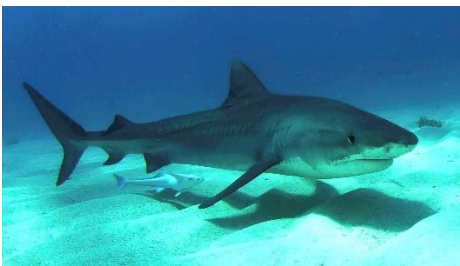
Who am I?

Choose 5 species of sharks or use the five below. Write 5 clues to correspond with each shark. Include clues about the shark's special features and how it adapts to its environment. Cut up the cards and test a partner to see if they can match the animal to the clues.



Who am I?

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Who am I?

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Who am I?

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Who am I?

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Who am I?

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-

Images: 1. Great white shark 2. Tiger shark 3. Whale shark 4. Grey Nurse shark 5. Bull shark

ANIMAL PROFILE

Scientific Name

APPEARANCE

Common Name

ADAPTATIONS

Unique Features or Interesting Facts

HABITAT

THREATS



Teacher Resource

Fierce Girls

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 is the Fierce Girls podcast?
2. Who did Yashika write about for her Fierce Girls story?
3. Who is Chloe Hayden?
 - a. An actor, author, and advocate
 - b. An activist, athlete, and teacher
 - c. An astronaut, writer, and chef
4. Describe the process of making a podcast.
5. On what special day is Eva's podcast being released?

Activity: See, Think and Wonder

After watching the BTN Fierce Girls story, students will respond to the following questions:

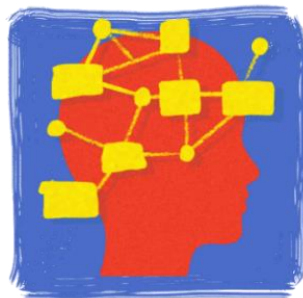
- What did you SEE in this video?
- What did you LEARN from this story?
- What do you WONDER about this story?
- What QUESTIONS do you have about this story?

Activity: Class Discussion

Discuss the BTN Fierce Girls story as a class. Use the following questions to help guide discussion:

- What is Fierce Girls?
- What is a synonym for fierce?
Make a list.
- What is an example of a time when you have been bold or fierce?

- Who do you know that is bold and fierce? Ask students to consider examples from history, pop, culture, or their own experiences.



EPISODE 27

19th September 2023

KEY LEARNING

Students will recognise and celebrate individuals who have made significant positive changes in society.

CURRICULUM

HASS – Year 4

Sequence information about people's lives and events.

HASS – Year 5 & 6

Develop appropriate questions to guide an inquiry about people, events, developments, places, systems and challenges.

HASS – Year 6

The contribution of individuals and groups to the development of Australian society since Federation.

HASS – Year 7

Construct significant questions and propositions to guide investigations about people, events, developments, places, systems and challenges.

Health and PE – Year 3 & 4

Explore how success, challenge and failure strengthen identities.

Activity: Synonyms

Students will brainstorm a list of synonyms for FIERCE. Below are some key words that relate to the BTN story. Here are some words to get students started.



Further activities for students:

- Use one or more of the above words to describe an example when you've been bold or fierce.
- What are some qualities of a person who is bold and fierce? Make a list.
- How did this story make you feel? Make a list of words that describe how you felt after watching the BTN Fierce Girls story.

Activity: Research Project

In this activity students will recognise and celebrate individuals who have made significant positive changes in society and understand the importance of their contributions. Ask students to brainstorm and list the names of individuals they know or have heard of who have made significant positive changes in society. Encourage them to think about different areas such as civil rights, environmental conservation, science, and more.

Visit the [Fierce Girls](#) website to learn more about Australian women who dare to do things differently. From athletes to aviators, scientists to spies. From the deep blue sea to the dark, black skies.

Facilitate a class discussion using the following questions:

- What are your initial thoughts about what it means to be fierce and bold? (Teachers: Emphasise to students that being fierce and bold isn't about being reckless but about taking thoughtful risks and standing up for what you believe in.)
- Can you think of any individuals, past or present, who have been bold and fierce and have made a positive change in society? Think of people that inspire you or are your role models.
- What qualities make this person special?
- How did their actions make a difference?
- What are some common characteristics and actions of people that are changemakers?
- Who inspires you? Why?

Students will then choose one of these people or groups they find inspiring and will research and record information about the person. Some possible areas of research include:

- When and where were they born? Describe their family life growing up.
- What are some of their achievements? Choose one to explore in more detail.
- What inspired or motivated them?
- What are some of their values?

- What were some challenges they faced?
- How did they make an impact on people's lives?
- What do you admire about them?

Students will use a range of primary and secondary sources during their research including biographies, articles, letters, speeches, artworks, photographs, and news stories. To extend learning in this activity students will choose one of the following projects to complete.

Biography

Create a biography about the person, which includes a timeline of important events in their life.

What are some of the key events in their life?
Write a summary for one key event, which answers the 5 W's – Who, What, Where, When and Why?

Creative Writing

Who inspires you?

Write an original story (approx. 500-800 words) about an Australian girl, boy, woman or man you admire most.

They could be someone famous already, or someone you think the world should know more about!

Portrait

Plan and create a portrait of the person or group. Think about the expressions, symbolism, and colours that reflect the person, their values, and their impact. Explore and experiment with different techniques and mediums to produce a portrait.

Present your portrait to the class, introducing who the person is, the impact they had and then explain your portrait and what each of the elements in the portrait mean. Organise a class exhibition of your artworks to share with the school and local community.

Podcast

Write stories about people doing inspirational things in your community. Create a podcast using [PodOmatic](#), [Buzzsprout](#) to share your stories with the school community.

Activity: Competition

Are you doing something great in your regional community? Applications are now open for the [ABC's 2024 Trailblazers program](#), where the spotlight shines on the brightest new leaders making a difference in their communities.



Useful Websites

- [Fierce Girls](#) – ABC Podcast
- [International Day of the Girl Child](#) – United Nations



Teacher Resource

BTN Transcript: Episode 27 – 19/9/2023

Hey. I'm Amelia Moseley and you're watching BTN. Thanks for hanging out with us again. Let's see what's coming up on today's show. We investigate the controversy around shark nets, meet some fierce young podcasters and watch a student-made lunar rover get put through its paces.

Morocco Earthquake

Reporter: Michelle Wakim

INTRO: All that soon, but first up today to Morocco. Over the past couple weeks, we've seen a lot of really upsetting images come from the region hit by a powerful earthquake. It's affected thousands of people including Australians with friends and family in Morocco. Here's Michelle with more.

WITNESS: Suddenly dust fell from the sky then everything came down. All we could think of was to run.

WITNESS: The room started shaking, there's no other way. We're going backwards and forwards, and everything started moving, and pictures started moving.

MICHELLE WAKIM, REPORTER: It's now been almost two weeks since a 6.8 magnitude earthquake rippled out of Morocco's High Atlas Mountains.

WITNESS: We just couldn't ever imagine something like this happening here really, it's just been totally devastating. We're just in survival mode and trying to get help out to the people who most need it, and we'll process it afterwards.

Rescue efforts are still underway, but so far almost 3,000 people have died and thousands more are injured.

NORA FITZGERALD BELAHCEN, AMAL CHARITY: All of a sudden, we have people who are homeless, so our parks have become makeshift places for the homeless to sleep every night. There are still people scared to sleep inside, there's houses that have been deemed unsafe.

It's a huge tragedy for Morocco, and for Moroccan people living far away from their country, it's been hard to watch.

BAHIJA: Being away from Morocco is quite difficult in times like this. Like, it's sad to not be there with my family. I just want to give them a hug and just be there to support them.

BAHIJA: Hi BTN. My name is Bahija. I'm 17 years old and I'm from Marrakech, Morocco.

Bahija now lives in Adelaide but was born in Morocco and lived there until she was 10 years old.

BAHIJA: It's a beautiful country. My favourite thing about Morocco and their culture, honestly, just the people. The people, the hospitality, the sense of community. Marrakech is crazy. It's as exotic as you can imagine. It's chaotic. There's the Medina with the souk market, the smells, the food. And I think that's what I love as well.

Bahija has a lot of family in Morocco and has kept in touch with them while this has all been unfolding.

BAHIJA: My family has a house in Marrakech in Morocco, which is about 60 kilometres away from the epicentre of the earthquake. Yeah, so they're all over there. They're all safe, thankfully. One of my friends actually lost their homes in the Medina. So, it just went flat, which is devastating news. She has been camping out on the streets with her fellow neighbours. Marrakech isn't known for its earthquakes, so there was a big sense of shock. They all just ran out of their houses as quickly as they could, and a lot of them just slept out on the streets, just scared about the aftershocks, if they were to happen, and one did the next day. So, it was just a true sense of shock, and fear.

A lot of other countries are sending their own emergency workers, along with things like water, food, and other supplies, to help people who have been affected. And, as Bahija says, Moroccan people are doing what they can to help each other.

BAHIJA: Everyone's just gone into action to help the people in the Atlas Mountains and the smaller regions, the ones that are more difficult to get to. And the sense of community is at its strongest, because they just want to help each other and that's the core of everything right now. I saw a video this morning where it was just three men who had just lost their home but just pouring cups of mint tea. So that was really nice to share, because in a moment of such tragedy, there's just hope and resilience and the care factor and the sense of community.

Upsetting News

If you're upset by that story or anything else you've seen in the news, make sure you talk to someone about it. We've also put together some resources on our website with tips for dealing with upsetting news.

News Quiz

A strong Mediterranean storm named Daniel has caused deadly floods in which North African country? It's Libya. The coastal city of Derna was completely cut off by flood water after the storm caused dams to burst. We'll keep you updated with the story on Newsbreak.

North Korea's leader, Kim Jong Un, made a trip to Russia last week. Do you know how he got there? He travelled by train. Not just any train though, a special bullet proof private luxury train. Kim Jong Un and Russian Leader Vladimir Putin have been talking about building a stronger relationship, and some suspect that Russia wants to buy weapons to use in its war against Ukraine.

What is different about the new iPhone that was released last week? It folds, it has a different operating system, or it has a different charger? It has a different charger. Apple were forced to ditch their lightning cables after the EU passed a law forcing companies to make small devices compatible with USB-C chargers.

What is the Reserve Bank?

Reporter: Thomas Midena

INTRO: This week a very important Australian institution gets a new boss. Michelle Bullock is taking over from Philip Lowe as the governor of the Reserve Bank. So, what does her job involve and what even is the Reserve Bank of Australia? Thomas found out, the hard way.

NAT KELLY, HOST: Welcome back, Australia. Thank you, thank you. Now, Thomas. For the Australian economy, your first question. What should the RBA set the cash rate to this month? 4%, 4.1%, 4.2% or

4.25%?

THOMAS MIDENA, CONTESTANT: Oof. Okay. Umm. That's a tricky one. Could I phone a friend?

NAT: Who we calling?

THOMAS: Let's call Michelle. She knows lots of things.

NAT: Ok Michelle.

MICHELLE WAKIM: Hello?

THOMAS: Hi Michelle, it's Thomas. I'm on who wants to be a Reserve Bank governor, but what's the RBA?

MICHELLE: The Reserve Bank?

THOMAS: Yeah, could you tell me what that is. I'm with a different bank.

MICHELLE: The Reserve Bank isn't like other banks, it's Australia's central bank.

THOMAS: Since when have we had a central bank?

MICHELLE: Well, back when Australia was a bunch of colonies people would use all sorts of things as money they'd barter or trade. They used promissory notes, and banks would make their own notes. But after we became a federation, the government started printing Australian banknotes. And it created the Commonwealth Bank to do the government's banking.

THOMAS: Which bank?

MICHELLE: The comm. Thomas. The Commonwealth Bank was sort of the OG reserve bank and after a while it started doing more stuff like raising money for the war effort looking after returned servicemen and eventually helping to manage finances and fight inflation and eventually in 1959 the government decided to create a separate reserve bank to take care of all the monetary policy.

THOMAS: Wait, what's monetary policy?

NAT: And we're out of time, I'm afraid sorry Thomas.

THOMAS: Well I still don't know what the RBA does, or what this cash rate is.

NAT: Thomas, just a reminder, you're playing here for the entire Australian economy. Do you want to phone an expert.

THOMAS: Oh, yes please. What does the RBA do?

SUE LANNIN, ABC SENIOR BUSINESS REPORTER: Well the Reserve Bank is Australia's central bank, so it belongs to all Australians. It does things like prints out banknotes. It's responsible also for government fees and charges, the government's money and the big thing, it sets what's known as monetary policy. So that means it controls the cost of money. So you might have heard that inflation has been really high, so that means it costs us more to buy things. So the Reserve Bank's been putting up interest rates, which are borrowing costs to make money more expensive. When things cost more, people stop buying so much. So that's the way that they control the economy by making prices cheaper. Therefore, the Reserve Bank controlling the economy is a really delicate balancing act. If they put interest rates up too much, then they

can send the Australian economy into recession. But if they don't put it up enough, that also creates problems.

THOMAS: Oh.

NAT: Alright Thomas, have you made your decision?

THOMAS: Well I still don't know which of these numbers it should be.

NAT: You still have one more lifeline, if you'd like to ask the audience?

THOMAS: Yes, I'd like to do that.

NAT: Okay, your 30 seconds to ask the audience, starting now.

CALE MATTHEWS, AUDIENCE MEMBER: Well obviously, it should be lower. I've got a mortgage, and if it goes up, I'm not going to have any money to spend.

JOANNA, AUDIENCE MEMBER: And the cost of living is really high right now.

JOSH LANGMAN, AUDIENCE MEMBER: But if it's too low, then it's going to cause inflation. I mean, where does that leave us?

CALE: I mean it leaves us with money to spend.

JOSH: No, no, no inflation is not good.

NAT: And times up. Thomas, you have to make your decision. For the national economy. For the wellbeing of current and future Australians.

THOMAS: Is it 1%?

NAT: Congratulations.

THOMAS: Wow.

NAT: You're *not* the next Reserve Bank governor. Michele Bullock is.

THOMAS: Ah. Well. That's probably for the best.

Quiz

How much was this early Australian banknote worth? Was it 10 dollars, 10 pounds or 10 shillings? It was 10 shillings. Back then our banknotes went from 10 shillings right up to 1000 pounds.

Shark Nets

Reporter: Cale Matthews

INTRO: Spring has sprung and for a lot of us that means more time at the beach. In New South Wales, it also means shark nets have been laid at some popular swimming spots, and while they're designed to keep people safe, some would like to see them phased out, as Cale found out more.

CALE MATTHEWS, REPORTER: Summer isn't far away, which means a lot of us are gonna be heading back here. But if you live in New South Wales, something else is getting back in the water.

This is a shark net. They're anywhere between 124 to 186 metres long, 6 metres deep, and are anchored to the sea floor. In Queensland, they can be found at a lot of beaches all year round. While in New South Wales, they're installed from the start of September to the start of April.

In New South Wales, the shark nets aim to protect the public from three species: White sharks, Bull sharks and Tiger sharks.

According to the New South Wales government, they're the type of sharks most involved in serious attacks against humans. So, they try to keep an eye on them. Shark nets aren't common, in fact, only New South Wales, Queensland, and some beaches in South Africa use them.

Since their addition to New South Wales waters in 1937, there's only been one shark-related death at a netted beach. But there have still been attacks, and some scientists say this shows that they don't really work.

LEO GUIDA, AUSTRALIAN MARINE CONSERVATION SOCIETY: These nets in New South Wales, for example, are 150 metres long or so. Sharks can swim over, under, around them. And the best way I can put it, is imagine a fly screen door, except all you had on that fly screen door was a thin strip of mesh, no wider than your finger. And you're hoping to keep the flies out. Obviously, it's not going to work.

Dr Leo Guida is a shark scientist, and he says the nets are doing more harm than good.

LEO GUIDA, AUSTRALIAN MARINE CONSERVATION SOCIETY: They literally are curtains of death. They catch a whole swath of animals. You're talking rays, turtles, dolphins, and of course, other shark species too.

In the last 10 years alone, 3,866 animals have been caught in the nets. And more than 85% of those weren't the species they were setting out to catch. Private contractors do go out and check all of the nets every few days, and if any non-target animals are caught in the nets, they do their best to untangle them and release them back into the ocean.

LEO GUIDA, AUSTRALIAN MARINE CONSERVATION SOCIETY: But at the end of the day, you know, they're not sitting on the net every second of the day, either. And it doesn't take long for an animal, particularly for an air breathing animal, like a turtle or a seal, to die.

Over the past decade there have been calls to take the nets out of the water for good. But earlier this month, the New South Wales government decided the nets would be going up for the 86th year in a row.

CHRIS MINNS, NSW PREMIER: We've got a ways to go when it comes to that shark detection technology, and I don't think that work will be done in enough time for summer.

Over the last couple of years, the NSW government has put a lot of money into coming up with some better solutions, including drones, more surf life savers, baited hooks that alert authorities when something bites it, and shark listening stations that alert the public when a target shark tagged with a GPS tracker gets close.

So while, for now, shark nets aren't going anywhere, it might not be long before we see more modern ways to keep swimmers and wildlife safe.

Nova Rover

Reporter: Josh Langman

INTRO: Now you might have heard that Australia's space agency is planning to build a rover to send to the Moon. But while they're working on that, let's meet some Aussie Uni students who've already built a lunar rover and taken it to an international competition in the US. Here's Josh.

JOSH LANGMAN, REPORTER: The rover. A remote controlled vehicle, unmatched in the game of space exploration. And here on the Moon, it's...

WHISPERER: It's not the Moon.

JOSH: What?

WHISPERER: It's not the Moon. It's Utah.

JOSH: Utah? Well, Utah might not be an alien world, but turns out this long stretch of desert in the US is great at simulating one. Which is why it's hosting an international competition for rover builders.

BEC, NOVA ROVER TEAM MEMBER: We're here to compete in the International University Rover Challenge against teams from over 10 different countries. We're really excited to meet all the other teams and to show everyone what our rover's got.

Bec is part of the Nova Rover team from Monash Uni in Melbourne, which created this interplanetary explorer.

GRANT, NOVA ROVER TEAM MEMBER: So, it'll be operated remotely via a radio. And it has stuff like a robotic arm.

BEC, NOVA ROVER TEAM MEMBER: It has to go around and explore its area just like the rover is behind me. On the moon, there's lots of water, it's stored as ice. And we can use that for astronauts as water to drink, or to breathe the oxygen. Or we could make hydrogen fuel. So, the rover has to try and extract water out of the ground.

Monash Uni is no stranger to the rover building game. Its Nova Rover project has been cranking out robots since 2017 as a way of giving students from many different fields a chance to flex their STEM skills. They're involved in all sorts of aspects of the build, from engineering, to programming, to figuring out just how much it'll cost.

BEC, NOVA ROVER TEAM MEMBER: When I came to university, I discovered how cool it is when you actually get to do experiments. And then I joined the team. And I discovered how cool it is when you can design the equipment to do the experiments.

And it looks like the team's hard work has been paying off. Because all their roving, has had critics raving.

GRANT, NOVA ROVER TEAM MEMBER: We recently won the Australian Rover Challenge up in Adelaide. That gave us a chance to compete against a lot of different teams throughout Australia.

Grant says it was great to test out the rover in this sort of environment.

GRANT, NOVA ROVER TEAM MEMBER: It's gonna give us a chance to test our ability to traverse rough terrain over long distances, as well as things like our autonomous system which drives the rover without

human input, and our science payload, which can analyse rock and soil samples for presence of life.

And while it's all about the science, this rover's also dressed to impress.

BEC, NOVA ROVER TEAM MEMBER: Our rover this year is pink, because we want to start conversations about women in STEM, and why we need more diversity in these jobs in this industry. Our team has a lot of diversity, a lot of women on the team. And we feel like that definitely has to have something to do with how well we perform.

They're also hoping this clever little robot can show kids just how far you can go with a career in STEM.

GRANT, NOVA ROVER TEAM MEMBER: If you're interested in STEM, I'd definitely say take as many opportunities as you can to get involved in STEM subjects in school.

BEC, NOVA ROVER TEAM MEMBER: Doing STEM subjects at school is one of the most awesome opportunities. It'll set you right up to go to university and university is where the real fun begins. You can make your own experiments. You can make your own robots. You can make rockets; you can do whatever you want. So, the sooner you start, the better off you'll be.

Sport

It's not the way the Wallabies wanted the second round of their World Cup campaign to end. Last night they took on Fiji and after taking a brief early lead the Aussies suffered a barrage of penalties boosting Fiji to a 22 to 15 win and their first over Australia in 69 years.

Back home to the biggest marathon ever held in Australia. The Sydney Marathon took place over the weekend after a week under a cloud of doubt literally as the city was blanketed with smoke. 40,000 people took part, but the win belonged to Moroccan Othmane El Goumri who completed the massive 42 kilometre run in just two hours, eight minutes and twenty seconds.

And there was a slippery spectator at the AFLW in Blacktown. Thankfully no people or snakes were hurt, and, in the end, Richmond took the W.

Fierce Girls

Rookie Reporters: Yashika and Eva

INTRO: Finally today, you're about to meet a couple of school kids who've just become podcast stars. Yashika and Eva were winners of a nationwide competition asking young people to tell the story of their female heroes for the Fierce Girls podcast. Let's find out more.

YASHICA: Hi, I'm Yashica. I'm 11 years old. And I'm one of this year's Fierce Girls Competition winners.

EVA: Hi, my name is Eva, and I'm 14 years old. And I'm one of the winners for this year's Fierce Girls Competition.

YASHICA: Fierce Girls is a podcast, which represents women, or girls in Australia that have done wonderful things, or helped other girls.

Fierce Girls Podcast Episode: Cathy Freeman, Australia. She leapt as the gun burst. Everyone was on her side.

EVA: This season of Fierce Girls was a competition season. It was all over Australia, people would send in, who they wanted to write about and who they thought was really inspirational. And then 10 people would be chosen, and they would get to record it in studios, and it will be added to the Fierce Girls podcast.

YASHICA: For my Fierce Girls story, I picked Marita Chang. Marita started a company called Robogals, and it actually helps girls around Australia, and all around the world, to get into engineering and robotics, and to let their inner engineer run wild. Robogals has got so popular that Marita is chosen to be one of the finalists in 'Young Australian of the Year' in 2012!

EVA: I picked Chloe Hayden.

CHLOE HAYDEN, IN HEARTBREAK HIGH: I'm autistic.

EVA: She's an actor, author, and advocate. Being most popular of anything is light years away from how life used to be for her. She advocates for more representation in the media, and to have actors who are neurodivergent, and to actually have them playing the neurodivergent characters instead of people who aren't, which is a really important thing, so people can actually see that there are people like them.

CHLOE HAYDEN, ACTOR AND ADVOCATE: And if they don't love every single part of you, and their love is conditional, you do not want that person anywhere near you.

HANNAH DIVINEY, WRITER AND ADVOCATE: Drop them like a hot potato.

CHLOE HAYDEN ACTOR AND ADVOCATE: So true, queen.

EVA: I just got home from school, and my mom told me, and I couldn't believe it! I really didn't think I was going to win, but I was so excited to record my own podcast.

YASHICA: How I reacted was, I was actually having a really bad day at school, and I was just really stressed out. And then as soon as I came into the car, my dad was like, 'Guess what?' And then I'm like, 'What?' And he's like, 'You got selected'. I'm like, 'For what?' And he's like, 'For the Fierce Girls Competition!' and I was like, 'Wait, really?'. I was like, so excited. And I kept on like, dreaming after that, how I'm going to start recording it and if I can actually meet Marita one day. I was like, so excited.

EVA: I found the podcast recording process really fun. I had to record a lot of times to make sure I just said it the right way, and the clearest way, and the best way for the listener to hear it.

YASHICA: It took a while since I had a sore throat that day. But it was actually like, really fun. The producer I was with, she told me not to be scared to be confident. Because if you're confident, then the emotion will just come in naturally.

EVA: My podcast will be released on the International Day of the Girl, which makes me really excited because it's such a big day. I'm really excited to hear it for the first time.

YASHICA: My producer she told me that Marita had listened to my podcast, so I was really happy. I felt really excited at over the moon and more inspired. It got me inspired to write like more stories and enter into more competitions.

Closer

That's it for this week and this term. We're going to take a bit of a break, but BTN Newsbreak will still be here every weeknight to keep you up to date. And, of course, you can jump online whenever you like to see

more stories and quizzes and specials and all sorts of other stuff. Have the best holiday and I'll see you really soon. Bye.