

Questions for discussion

Episode 25 1st September 2015

Share Crash

- 1. Discuss the *Share Crash* story with another student. Record the main points of the discussion.
- 2. What are shares?
- 3. Where are shares bought and sold?
- 4. On which famous street is the New York Stock Exchange?
- 5. The value of shares can go up and down depending on how _____they are.
- 6. What other things can affect the price of shares?
- 7. Explain why shares can be a risky thing to buy.
- 8. What happened to the stock market in China recently?
- 9. Why did the stock market crash?
- 10. What affect can a stock market crash have on markets around the world?

Write a message about the story and post it in the comments section on the story page.

Torres Strait

- 1. Locate the Torres Strait Islands using Google Maps.
- 2. About how many islands are in the Torres Strait?
- 3. How many of the islands have people living on them?
- 4. What are the features of the Torres Strait flag?
- 5. Who was Eddie Koiki Mabo?
- 6. What did Prime Minister Tony Abbott do when he visited the Torres Strait Islands recently?
- 7. Which two issues did he want to draw attention to?
- 8. What do the kids say they would like to change about the Torres Strait?
- 9. What do they like about living in the Torres Strait?
- 10. What was surprising about this story?

Check out the <u>Torres Strait resource</u> on the Teachers page

Do the quiz on the BtN website

Ocean Rubbish

- 1. Explain the Ocean Rubbish story to another student.
- 2. How many pieces of plastic end up in the world's oceans every day?
- 3. How does plastic get into the ocean?
- 4. What can happen when plastics stay in the water for a long time?
- 5. What are microplastics?
- 6. Why are they harmful?



- 7. What is the Great Pacific Garbage Patch?
- 8. Explain Boyan Slat's idea to clean up the garbage patch.
- 9. Illustrate an aspect of the Ocean Rubbish story.
- 10. What can be done to prevent plastics from reaching the oceans?

Check out the Ocean Rubbish resource on the Teachers page

Coding

- 1. Before you watch the BtN *Coding* story, make some predictions about what you think the story is about.
- 2. What happened to Gemma's guinea pig?
- 3. What did she decide to do to keep her pet safe?
- 4. Gemma wanted the guinea pig door to...
- 5. What type of sensor does Gemma use to open and close the door?
- 6. What is computer coding?
- 7. Give some examples of how computer coding is used.
- 8. Why do some people think that computer coding should be taught in all schools?
- 9. Do you think all school kids should learn computer coding? Explain your answer.
- 10. What do you understand more clearly since watching the BtN story?

Vote in the Behind the News online poll

Exporting Nippers

- 1. What was the main point of the *Exporting Nippers* story?
- 2. What do nippers do?
- 3. What colours are the surf lifesaving flags?
- 4. Which country was the first in the world to set up surf lifesaving?
- 5. Nippers' programs are run by lifesavers as an introduction to...
- 6. Which country in the Middle East has introduced a nippers program?
- 7. What does the program teach the kids about beach safety?
- 8. How have the kids responded to the program?
- 9. What other countries have nippers' programs running?
- 10. What do you do to stay safe when swimming?

Write a message about the story and post it in the comments section on the story page.





Teacher Resource

Episode 25 1st September 2015

Torres Strait



FOCUS QUESTIONS

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ACTIVITY

Discuss the BtN *Torres Strait* story as a class. What questions were raised in the discussion (what are the gaps in their knowledge)? The following KWLH organiser provides students with a framework to explore their knowledge on this topic and consider what they would like to know and learn.

What do I <u>k</u> now?	What do I <u>w</u> ant to know?	What have I <u>l</u> earnt?	<u>H</u> ow will I find out?

Students will determine a focus for their inquiry into the Torres Strait Islands (for example, history, geography, the people or culture) and then develop a key question.

Students will collect and record information from a wide variety of sources (internet, books, newspaper and magazines) and present the information they find in an interesting way.



KEY LEARNING

Students will explore Torres Strait Islanders connection to place. Students will study totems in the lives of Torres Strait Islander Peoples.



Civics and Citizenship - Year 5

How laws affect the lives of citizens, including experiences of Aboriginal and Torres Strait Islander Peoples (ACHCK025)

History - Year 4

The diversity of Australia's first peoples and the long and continuous connection of Aboriginal and Torres Strait Islander Peoples to Country/ Place (land, sea, waterways and skies) and the implications for their daily lives. (ACHHK077)

History - Year 6

Experiences of Australian democracy and citizenship, including the status and rights of Aboriginal and Torres Strait Islander Peoples, migrants, women, and children (ACHHK114)

The contribution of individuals and groups, including Aboriginal and Torres Strait Islander people and migrants, to the development of Australian society, for example in areas such as the economy, education, science, the arts, sport. (ACHHK116)

Geography - Year 4

The custodial responsibility Aboriginal and Torres Strait Islander Peoples have for Country/Place, and how this influences their past and present views about the use of resources (ACHGK023)

Geography - Year 5

The influence of people, including Aboriginal and Torres Strait Islander Peoples, on the environmental characteristics of Australian places (ACHGK027)

Geography - Year 7

The economic, cultural, spiritual and aesthetic value of water for people, including Aboriginal and Torres Strait Islander Peoples and peoples of the Asia region (ACHGK041)





Torres Strait Islander Flag

Understanding the Torres Strait Islander flag

- What is the story of the Torres Strait Islander flag?
 Describe using your own words.
- Who designed the flag?
- When was the flag designed?

Research and answer these questions

- The green stripes represent...
- The blue represents...
- The black stripes represent...
- What is the white symbol in the middle of the flag? It represents...
- What does the star symbolise?
- The colour white represents...
- The flag as a whole symbolises...
- Why is the Torres Strait Islander flag different to the Australian Aboriginal flag?

To learn more about the story of Torres Strait Island flag listen to this tribute and read these facts.



TORRES STRAIT ISLANDER FLAG



ACTIVITY

Geographical facts and figures

Investigate the geography of the Torres Strait Islands, and collate your findings in a table.

Facts and figures	
Total number of islands (how many islands are inhabited and non-inhabited)	
Capital	
Island groups There are 5 geographically and cultural distinct main island groups. List the islands in each group and highlight on a map	Top Western: Eastern: Central: Near Western: Inner:
Population	
Climate What is the average temperature and landfall?	
Languages	
Interesting facts	



Create a pamphlet

Design and create a pamphlet about Thursday Island, the Capital of the Torres Strait Islands. Include information about the people, food, wildlife, marine life, climate, environment, how to get to Thursday Island and things to do in Thursday Island

Mapping languages

Research the languages of the Torres Strait and draw a map showing the areas in which each are spoken.



Explore totems of the Torres Strait Islands

A totem is an object that represents a clan or family's unique identity. Some Torres Strait Islander people can be identified by their totems, which can be birds, turtles, reptiles, sharks, crocodiles and fish. They are an important part of cultural identity. One clan from Mer in the Eastern islands has a shark or beizam totem. The shark reminds the Islanders to respect its home, the sea. Totems often feature in Torres Strait Islander art and ceremonies.

- 1. Do you know what a totem is? Discuss as a class recording your responses on the class whiteboard. Explore some of the totems that are an important part of cultural identity for Torres Strait Islanders.
- 2. Below are some artworks which incorporate different totems. Look at and think about these artworks and record your observations below. Examine the differences between these totems.

Explore totems of the Torres Strait Islands	View larger image	View larger image	View larger image
List the materials used to make this artwork.			
Where can the materials be found?			
Identify the totem in this artwork.			
Find out which <u>clan</u> identifies with this totem.			
Why is this totem important to Torres Strait Islanders?			
How does this totem help you understand Torres Strait Islander people and culture?			



- 3. If you were to choose a totem (from nature) that represents your school what would it be? Explain.
- 4. Design a headdress (Dhari) with moving parts that tells the story of your school totem. Use materials that you can easily find at school (recycled objects, cardboard, sticks, feathers, leaves, wood glue).
- 5. Present your totems as part of an art exhibition for other students and teachers to see. Include a artists statement/description to accompany your artworks.



Rights

Investigate the struggles and achievements for Torres Strait Islander rights, by investigating one or more of the following.

- Learn about the story of <u>Eddie Mabo</u>. Write a few paragraphs about what you learnt, using one or more of the following sentence starters.
 - "Today I learnt about the story of Eddie Mabo and it made me feel..."
 - o "I think Eddie Mabo is..."
 - o "Eddie Mabo is an important Australian because..."
- Investigate the achievements of Edward Mabo and prepare an obituary for him.
- Prepare a timeline which highlights significant events in the Mabo Case.



Behind the News – Mabo http://www.abc.net.au/btn/story/s3765672.htm

Behind the News – Mabo Day Teacher resource http://www.abc.net.au/btn/resources/teacher/episode/20130528-maboday.pdf

Australian Museum – Murray Island Image Gallery http://australianmuseum.net.au/mer-murray-island-and-its-people-in-1907

ABC Places – Torres Strait Islands http://www.abc.net.au/ra/pacific/places/country/torres_strait_islands.htm

AIATSIS – Torres Strait Islander Flag http://aiatsis.gov.au/explore/articles/torres-strait-islander-flag

Torres Strait Regional Authority (TSRA) – Home http://www.tsra.gov.au/

National Museum of Australia – Mystery Object Interactive: Torres Strait Islands http://www.nma.gov.au/interactives/tlf/tsi/





Teacher Resource

Episode 25 1st September 2015

Ocean Rubbish



FOCUS QUESTIONS

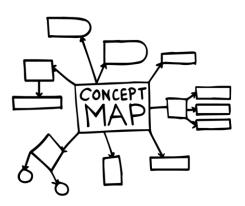
- 1. Explain the Ocean Rubbish story to another student.
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- 3. How does plastic get into the ocean?
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- 5. What are microplastics?
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- 7. What is the Great Pacific Garbage Patch?
- 8. Explain Boyan Slat's idea to clean up the garbage patch.
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ACTIVITY

Discuss in pairs or as a class the effect that plastic which ends up in the ocean has on animals, people and the environment.

Record your responses on a concept map and discuss the different categories for their responses (physical and emotional).



Ask students to finish one or more of the following incomplete sentences:

- This story made me feel...
- Plastic that makes its way into the sea is....
- Marine debris is impacting on...
- It is surprising that...



KEY LEARNING

Students will investigate how much plastic they throw out and find ways to reduce their waste and impact on the environment. Students will learn about the 5 plastic-filled gyres in the world's seas and how they impact on marine wildlife.



Science - Year 4

Science knowledge helps people to understand the effect of their actions (ACSHE062)

Science - Years 5 & 6

Scientific knowledge is used to inform personal and community decisions (ACSHE220) (ACSHE217)

Science - Year 7

Science understanding influences the development of practices in areas of human activity such as industry, agriculture and marine and terrestrial resource management (ACSHE121)

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 (ACSHE120)





Topics of inquiry

Students will determine a focus for their ocean rubbish inquiry within an area of interest, for example, make a prediction or develop a key question.

- What is a gyre? Explore the 5 plastic-filled gyres in the world's seas and how they impact on marine wildlife.
- What is meant by the term 'travelling trash'? Explore the journey of plastic into our oceans. Watch this <u>TED-Ed video</u> to find out what really happens to the plastic you throw away.
- What types of study and research are scientists doing to help protect marine ecosystems and wildlife? Explore and explain one study in depth.
- What might happen if we don't look at the marine debris problem? Think about the responsibility of individuals, communities and the government.
- Why should we protect our oceans? Write a persuasive piece of writing explaining your reasons.
- Marine debris is a significant Australian and global issue causing negative ecological, economic and social impacts. Explore and explain these impacts.



Awareness challenge - Are you waste wise?

For one week students (and teacher) will keep a diary to document the amount of plastic they throw away at school and at home on a daily basis.

Class brainstorm

Before starting this challenge, brainstorm the types of plastic you throw away on a daily basis. Share your ideas as a class recording your responses on your classroom whiteboard. For example, cling wrap from your school lunch, plastic shopping bags, straws, water bottles, chip packets and other food packaging.

Audit your waste

On a daily basis, collect and record all your waste that is plastic, including the weight. At the end of the week add up how many pieces of plastic you threw out and the combined weight. Plot your results on a bar graph.

Day	What plastic did you throw away? For example, cling wrap, food packaging, straws, drink bottles	Number of items	Weight of plastic
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			

Analyse your results and respond to the following:

- What surprised you about the results?
- Identify the best areas for improvement. How could you reduce the amount of plastic you throw away?



Reduce your waste

Do your part to make a change and challenge yourself by going plastic-free for a day or a week.

- Think of ways that you can avoid using plastic that you would normally throw away. How can you reduce, reuse, recycle or upcycle plastic? For example, use paper bags to wrap you lunch, purchase milk and juice in cardboard and shop at your local farmers market to avoid pre-packaged food.
- Did you find this challenge difficult? Why or why not? Explain.
- What plastic-free alternatives did you use during the challenge? Describe.
- · How has this challenge impacted on your thinking?



Poster design

In small groups or as a class think about the effect that plastic pollution in our oceans has on people, animals and the environment. Record your responses in a mind map, with the sentence "Plastic pollution in our oceans is..." written in the middle.

- difficult to cleanup because it breaks down into really small pieces (micro plastics)
- killing marine life species are getting tangled in plastic and are eating the plastic
- threatening marine ecosystems
- costing a lot of money to cleanup
- everyone's problem (consumers and producers)
- affecting the food we eat and our health
- making our beaches and oceans dirty which may affect tourism

Design a poster which illustrates one or more of the ways that plastic pollution in our oceans affects people, animals and/or the environment. Display your artworks to celebrate seaweek and raise awareness about the issue.



ACTIVITY

Upcycling

Watch BtN's <u>Upcycling Kids</u> story and then talk about upcycling as a class. Have you ever turned your rubbish into treasure? Describe your creations to other students in your class. What materials did you use?

As a class list the benefits of upcycling. Here are some suggestions:

- reduces the amount of waste and therefore landfill
- reduces the need for production using new or raw materials (therefore reduces air pollution, water pollution, greenhouse gas emissions)
- unique, one of a kind products
- saves money for example you could upcycle your clothes into new designs
- uses your creativity

Experiment with upcycling using recycled materials collected at home and at school.







ABC News – Researchers sample giant rubbish vortex in Pacific Ocean as part of global, clean-up proposal http://www.abc.net.au/news/2015-08-24/researchers-sample-giant-oceanic-rubbish-vortex/6720802

TED Ed Lessons – What really happens to the plastic you throw away? http://ed.ted.com/lessons/what-really-happens-to-the-plastic-you-throw-away-emma-bryce

5 Gyres – What is the issue? http://www.5gyres.org/what is the issue/the problem/

Behind the News – Plastic Oceans http://www.abc.net.au/btn/story/s3591476.htm

Behind the News – Take 3 http://www.abc.net.au/btn/story/s3875973.htm

Adrift – Marine Plastics Interactive http://www.adrift.org.au/map?lat=-19&lng=-71.4¢er=133.3&startmon=Jan



BtN: Episode 25 Transcript 01/09/15

Coming up.

- Meet the Aussie kids that call the Torres Strait home.
- Discover how the world's biggest ocean also became the world's biggest rubbish dump.
- And could a knowledge of computer coding save this little guy's life?

Hi, I'm Nathan and welcome to BtN! You can see all that later but first.

Share Crash

Reporter: Amelia Moseley

INTRO: 64 billion dollars was wiped off of the Australian stock exchange in one day last week. That is a pretty big crash and we weren't the only ones. Share markets around the world suffered like that too. But why? Here's Amelia to explain.

AMELIA MOSELEY REPORTING: This is Tom, and he makes t-shirts.

Tom: Hi! I'm Tom and I make t-shirts.

Tom's t-shirts are the talk of the town.

Lily: Awesome.

So business is booming and now Tom wants to take it to the next level.

Tom: I'm toying with getting into tank tops.

But he needs more money to grow his business, so Tom's going to sell some shares. They're like little pieces of a company that people can buy. All sorts of different companies sell their shares, and all those shares are bought and sold on the stock market, every week day, all around the world. You've probably even heard of some of the biggest stock exchanges like the one on Wall Street in New York.

But shares are funny things. Their value can go up and down, depending on how popular they are.



Take Tom here: if his t-shirts are selling like hotcakes, then more people are going to want a piece of the action and Tom's shares will go up. But if they go out of fashion, well, his shares aren't going to be worth so much. Shares can also be affected by other things like how the economy's going, how many jobs there are, and how much spare cash people have to spend on things like t-shirts.

Mostly, it comes down to how people feel about the company and whether they think it's doing well or could do well in the future. But there's no way of knowing for sure, so shares can be a risky thing to buy and recently investors saw just how risky.

MAN: There's a lot of panic.

WOMAN: I feel scared, very scared.

A big stock market crash hit the world's biggest country, China. In the past few years its economy has grown heaps and lots of people have invested in shares. But, recently, quite a few Chinese companies haven't been doing as well as people thought they would. Worried investors started selling their shares and the market took a dive.

Tom: Phew. Glad I'm not in China.

Not so fast Tom. Stock markets are all linked to each other, so a crash in China can affect other countries, like Australia, too. A lot of big companies here sell stuff to China. If China is buying less than they used to, that's bad news for the Australian businesses that rely on them. That, in turn, will affect other Australian businesses that rely on them, and pretty soon the whole economy is affected. And if the economy isn't going well, people might not have as much spare cash to buy Tom's t-shirts.

Tom: Hey don't you wanna buy a t-shirt?

Lily: No, haven't you heard what's happening in China? I can't afford it now.

But others reckon we shouldn't worry too much because China isn't the only economy that can affect us.

PM Tony Abbott: I think it's important that people don't hyperventilate about these things. While the Chinese economy is slowing, the US economy is gathering speed.

After all, the stock market goes up and down all the time, so we'll just have to wait and see which way it goes next.

The Wire

To other news now and the federal Government has faced some criticism after one department, the Australian Border Force, seemed to announce that it was planning to randomly stop people in the centre of Melbourne to check their visas.



Visas are given to people from other countries who want to come to Australia to visit or work.

But some people stay longer than their visa allows them to which is illegal.

However the idea of stopping people in the streets was one that some people thought was wrong.

And after a protest the plan was cancelled.

A new report is warning lots of young people are training for jobs that won't even exist in the future!

The Foundation for Young Australians says 60% of Aussie students are studying or training for jobs that could vanish in just ten years time!

The Foundation expects smarter technology will replace lots of jobs.

The report recommends kids should start learning digital skills like coding at a younger age to make sure they're ready for the jobs of tomorrow.

The winners of the Australian Museum's Sleek Geek Science Competition have been announced!

Ella and Gigi won the primary school competition with their video 'Cry Stoppers'.

You might have seen them on our show last week.

"Once the gas reaches our eyes it stimulates the neurons to create the familiar burning feeling."

15 year old Paige won the secondary schools competition with her video about the appendix.

"For most of history humans have had no idea what the appendix was for. Most people think it was once used to digest grass and others say it does nothing."

And a 12 year old kid in Taiwan has had the school excursion from hell.

He tripped and accidently punched a hole in a 2 million dollar painting!

'Flowers' by Paolo Porpora is a 350 year old Italian masterpiece.

And now it needs some serious restoration work.



Luckily the exhibition organisers had insurance and the boy isn't in too much trouble.

"It's obvious that the boy didn't mean to push the painting. I merely think that the kid might have been focusing on what the teacher was saying and his eyes were elsewhere."

Wonder what his parent's said.

Torres Strait

Reporter: Emma Davis

INTRO: Last week the Prime Minister spent a few days running the country from the Torres Strait. That's the stretch of water right up at the top of Queensland where there's a bunch of Australian islands. But it's an area not many people know much about. So here's Emma to give you all the details.

But first a warning to Aboriginal and Torres Strait Islander viewers; this story contains images of people who've died.

EMMA DAVIS, REPORTER: Just off the coast of the northern most part of the Australian mainland is a big group of islands that these guys call home!

KARLA: Hi my name is Karla.

KAI: Hi my name's Kai.

GIAAN: Hi my name is Giaan.

ZAWAI: Hi my name is Zawai.

KARLA: I'm 12.

KAI: I'm 11.

ZAWAI: I am 12 years old.

GIAAN: I am 11 years old and I'm from the Torres Strait.

The Torres Strait is here, a stretch of water between Australia and Papua New Guinea. More than 270 islands are scattered in this area but only 17 actually have people living on them. Almost seven thousand people live in the Torres Strait and pretty much the only way for them to travel between islands is by boat (and that includes getting to school every day)!

JAZZ: 6 o'clock in the morning we get up and we got to the wharf.

KARLA: We don't have a wharf so we have to take our shoes off and walk in the water.

ZAWAI: It'll take 15 minutes for the ferry to go to the TI wharf.



Technically all of the islands these kids live on are a part of Queensland but since 1992 the Torres Strait Islanders have had their own flag, featuring a traditional headdress called a dhari and a five pointed star that represents the five major Torres Strait Island groups. Experts reckon humans have lived on these islands for at least two thousand, five hundred years and they've always had a deep connection to their lands. One Torres Strait Islander who felt that connection was a man named Eddie Koiki Mabo, a very famous campaigner for Indigenous land rights. When the Prime Minister visited the Torres Strait islands last week he visited Mabo's gravesite on the island of Mer and paid his respects.

TONY ABBOTT, PRIME MINISTER: It is an honour to be here in this island which has been so significant for Indigenous people and is now so significant for all Australians.

Tony Abbott was the first Prime Minister to visit the Torres Strait in 18 years. He said he wanted to draw attention to some of the issues faced by the people living here, like healthcare and education. These kids reckon there are a few things they'd change about the Torres Strait.

GIAAN: I would want more hospitals in every island because where we stay we don't have a hospital. We need to, if there's an emergency, we get medi-vacced over to Thursday Island.

ZAWAI: I think that we could build a bridge over to Hammond Island from TI.

KAI: And if there could be like an amusement park or something like that.

But overall they think it's a beautiful place and they're proud to call it home.

ZAWAI: I love the Torres Strait because we can go fishing and swimming in the salt water.

GIAAN: We play down the beach. We play handball or touch football.

KARLA: My favourite thing about living up here is the waterholes

ALL KIDS: We love the Torres Strait!

Quiz 1

Okay, let's go to our first quiz now. Which of the following is not an island in the Torres Strait?

Wednesday Island

Thursday Island

Or Friday Island

The answer is - it's a trick question - because they're all islands in the Torres Strait!

Sorry about that!



Ocean Rubbish

Reporter: Carl Smith

INTRO: Now picture the world's biggest dump and you probably don't picture an ocean. But that's the sad reality of what some parts of the Pacific have become. So in the lead up to Sea Week next week we thought we'd take a closer look at it and how one young guy hopes to solve it. Here's Carl.

CARL SMITH REPORTING: For years, plastic has been slowly choking our oceans. Each day around three and a half million pieces of plastic wash into the sea. Once there, they can harm marine animals that mistake plastic for food or get tangled in it. But where is all that plastic coming from?

CARL: Well it often starts here. We've all seen it caught on plants or blowing down the street and occasionally we've accidentally dropped it ourselves.

This plastic rarely just stays on the street though. Instead it often gets washed into waterways.

CARL: Some plastic does get filtered out in drains like these before it gets into our rivers or waterways.

But the rest of it keeps floating. And because plastic can take hundreds of years to break down you might be surprised at just how far it can travel.

CARL: In year or two a bit of rubbish like this here in Adelaide could wash all the way to New Zealand.

After that much time in the water it could start to break down and eventually turn into this: tiny little specs called micro-plastics that animals can mistake for food.

And that isn't the end of this plastic's journey either. Its next stop is the largest dump in the world.

This is the Great Pacific Garbage Patch - a giant part of the Pacific Ocean bigger than New South Wales filled with floating plastic. We know this patch is a big problem but cleaning it up has been either too tricky or too expensive.

That was until this guy came along. At just 16 years old Boyan Slat from the Netherlands started thinking up a solution.

Boyan Slat: I realised, back in High School, there might be an alternative.

For a school project he designed a system of floating barriers that would be up to 100 kilometres long. They would sit in the path of ocean currents, in a v-shape, to capture and funnel any floating plastic. Then these giant towers would suck it all up.

Boyan Slat: Instead of going after the plastic, you could simply wait for the plastic to come to you!



Five years after coming up with the idea, his organisation the Ocean Clean-up is getting ready for a big trial of the technology off the coast of Japan.

Boyan Slat: yes, it works!

But even if they can grab all that plastic floating on the surface he says his organisation still couldn't fix the problem completely.

Boyan Slat: It is of course essential to first close the tap, to prevent any more plastic from reaching the oceans in the first place

So he's calling on everyone to lend a hand.

CARL: Just a single bit of plastic like this can break up into lots of little parts that hang around for ages and cause a lot of damage.

So the best thing you can do is just throw it in the bin!

And who knows how many lives you might save with that one simple act.

Quiz 2

Okay time for quiz number 2 now.

Good luck!

What are most plastics made from?

Is it Sand

Potassium

Or Fossil Fuels

The answer is Fossil Fuels

Coding

Reporter: Amelia Moseley

INTRO: Now, do you know how to program a computer? Well, some people say every kid in Australia should. That's why there's pushing for all students to learn coding at school. But is it really that useful in the real world? Here's Amelia to find out.

Gemma: Mocha! Flicker!

AMELIA MOSELEY REPORTING: Gemma and her furry friends have just been through a really rough patch.

Gemma: I had just come down into the backyard and I went to go and pick up Mocha and when I found her she had a massive scratch right next to her eye and an ulcer had grown



onto it and there was blood around it and I freaked out and so we rushed her off to the hospital and we found out that a possum had attacked her.

Luckily, Mocha recovered. But Gemma decided something needed to be done.

Gemma: I was so worried. Like, I didn't want anything to happen to her after that. I wanted something that would keep them safe even if we forgot to close the hutch, so that's when I came up with the idea to make an automatic door opener.

Gemma: So connecting the LED lights to the main source.

But it isn't just about connecting wires. Gemma wants the guinea pig door to open during the day and close at night, and she wants it to make a loud buzzing noise so the guinea pigs won't get hurt when it shuts.

Gemma: Cause they don't like the sound, so they just run away from it I guess.

To do all that, she has to teach herself computer coding.

Gemma: Brackets LED level is 20. Int LED level equals piazo. Bracket, void loop, bracket. So this tells me how to make an LED light turn on and off.

It's basically a set of instructions that tells a computer what to do and it's used for all sorts of things, from designing cars to sending rockets into space.

Gemma: You can do a lot of things with coding!

But Gemma's not the only kid learning the language of the future. Some schools now teach it too.

BOY 1: We as humans speak languages such as English or French or German, but computers speak a special language and if we can learn to learn it then we can use it to control the computer and command it.

BOY 2: I have amde my own flappy game. You can set all the settings to whatever you like so you can have the bird go really fast or really slow.

But it's not just fun and games. Some people reckon coding classes should be compulsory for all Aussie schoolkids, so they can get a head-start on important skills that might be vital for heaps of jobs in the future.

But for now, Gemma's just focusing on her pets.

Gemma: Well my guinea pigs mean so much to me. And I really want to make this work. I'm just making some final improvements to it to make sure it's realiable

Reporter: Cross your fingers.

With a bit of luck, and a lot of hard work, she's ready to put her coding skills to the test.



Gemma: So when when covering the light sensor it represents night time so the door will close so the guinea pugs will be inside safely. It's just sensed that there's enough light, so in the morning that'll open so that they can come out.

And it looks like Mocha's pretty pleased with the results.

Poll

Okay so how do you feel about coding?

Let's go to a poll.

Should all kids learn coding at school?

Head to our website to place your vote.

Now last week we asked you if you have ever shopped at an op shop.

And it seems most of you actually have!

Thanks for letting us know!

The Score

Time for the biggest plays of the week now! Here's Sport.

The Aussie women's cricket team have won the Women's Ashes back from England.

The two teams have been competing in a mixed series of One-Dayers, 20-20s and a test.

And Australia's T-20 win on the weekend meant they snatched back the Women's Ashes for the first time since 2010.

"You know, it's the only thing we haven't been able to do in the last five years. We came over here really confident with a really good squad."

Fremantle has finished top of the ladder for the AFL minor premiership.

They secured their position after thrashing Melbourne by 54 points on the weekend.

Horse-racing legend Bart Cummings has died - aged 87.



The famous trainer dominated the Melbourne Cup for years with his horses winning the race 12 times.

He even came to be known as the 'Cups King' because of his success.

Usain Bolt has kept his title of 'fastest man alive'.

He won gold in both the 100 and 200m sprints at the Athletics World Championships held in Beijing.

He ran the 100 in just 9-point-7-9 seconds!

But his celebrations after the 200 were cut short after a cameraman on a Segway lost control and crashed into him!

USAIN BOLT: He tried to kill me I dunno what's going on! It's like, you're winning too much, take him out, haha.

Bolt walked away with just a scratch on his leg.

And the cameraman wasn't hurt either, embarrassed yes, but hurt, no.

And while it might not strictly be a sport, these competitors at the World Air Guitar Championships have certainly put in enough effort to make it look like one.

They came from around the world with amazing costumes and epic moves.

Just no actual guitars!

DAN "BJORN TUROQUE" CRANE: So the fact that this has been going on for 20 years is insane. And it's truly a testament that tonight we have thousands of people standing in the rain to watch people do nothing for 60 seconds

This year it was Kereel Blumenkrants from Russia who took the title.

"I'm pretty damned honoured I admit that but there will be many other champions in the future and as long as air guitar lives I'm happy to be part of it."

Exporting Nippers

Reporter: Carl Smith

INTRO: Nippers is a popular program that aims to teach Aussie kids how to save lives at the beach. And it's been incredibly successful at doing just that. Now other countries want to train their own Nippers too. Here's Carl with more.



CARL SMITH REPORTING: There's the red and yellow flags, the cap, and of course lots of sliding in the sand. Yep, we all know Nippers when we see them.

NIPPER: Running, boarding and all of that type of stuff!

NIPPERS: Nippers is awesome!

But on top of all that fun and fitness, there is a serious side to being a Nipper too.

NIPPER: If you're walking on the beach with your dog and you see someone in the water and they need help, you can help pull them out the water and resuscitate them.

NIPPER: It's pretty important because when you get a little bit older you get to learn how to save people's lives.

Australia was the first country in the world to set up surf lifesaving and that was back in 1907.

Kids' Nippers programs are run by our lifesavers as an intro to beach safety.

And it's been such a successful program down under that other countries are now asking Aussies for a hand to set up their own Nippers clubs!

Lifesaver: Can you ask them if they want to get in the water first? Yehhhhh! Yehhhhhh!

These new Nipper recruits are in Israel - a small country in the Middle-East which has some big stretches of beach along the Mediterranean Sea.

But the beach culture here is very different to Australia, and when Aussie surf lifesaver Steven visited, he was worried that lots of people weren't aware just how dangerous the sea can be.

Steven Rubner: A lack of education - education about how to conduct yourself on the beach, lack of education about the sea and about the rips and tides.

That's how the country's first Nippers program was born! And it's been a huge success. The plan was to start with 30 local Israeli kids but 80 have already enrolled and qualified!

Israeli boy: I learned how to save someone's life with a surfboard!

Israeli girl: I like learning how to run in different ways, so I can get to the person who I am supposed to save in the fastest possible way.

And their parents have been keen to help out too!

Israeli parent: She love it, she love it, she doesn't want to go home, she want to stay and learn more!

The program's got locals inspired to spread the idea across the country's beaches.

And Israel isn't the only nation that's asked Australia for help setting up a Nippers program.



The red and yellow flags are now also flying in New Zealand, Indonesia, Fiji, South Africa and India.

Although it's all designed to help keep people safe, kids right around the world are also learning that Nippers can be a lot of fun.

And that's no surprise to these guys.

NIPPER: It would be a great experience and it would be fun teaching them how to swim and do stuff.

NIPPER: Well not many of them know how to swim and if some of them do then they can save others.

NIPPER: I think Nippers is a great environment and everyone should get out and do it! I think it's fun and you keep healthy.

Closer

And that wraps us up for another week. But your class can see us again on Friday for our weekly #AskaReporter session!

This week's topic will be Carl's 'Ocean Rubbish' story. If you'd like your school to get involved there are instructions on our website.

Thanks and bye for now!

