

# BtN: Episode 17 Transcript 16/06/15

Coming up:

- 1.6% of Australia is going up for sale - we find out why.
- How standing up could be the new sitting down.
- And kids designing their own robots to tackle underwater obstacles.

Hi, I'm Nathan and this is Behind the News. You can see all of that stuff later but first today.

## Fossil Fuels

Reporter: Carl Smith

*INTRO: Last week was the G7 - a really important meeting between the leaders of seven of the most powerful countries on earth. One of the biggest things to come out of that meeting was that all of them agreed to stop using fossil fuels by the end of the century. It's been called a historic decision but what are fossil fuels? And why are these big countries getting rid of them over your lifetime? Here's Carl.*

CARL SMITH, REPORTING: Coal, oil and gas help to power just about everything we see around us.

Together they're called fossil fuels. But what do fossils have to do with energy? Well just like these old bones the story of fossil fuels began a very long time ago. In fact it starts about the same time as when this guy was still alive.

Hundreds of millions of years ago the world was a very different place. These beasts ruled the earth, and the sea was full of life. But over time many prehistoric plants and animals died. And as gross as it sounds their dead bodies were the first ingredient needed to make fossil fuels.

All living things are packed with stuff called carbon. It's in you and me now and it was in all of those dinosaurs, plants and other creatures that were unlucky enough to kick the bucket and fall to the bottom of the ocean. That carbon inside their bodies is one of the main ingredients in fossil fuels.

But you need a few other things too:

- There's heat from the warm ocean water that covered them.
- Pressure from the mud, rock or water that built up on top.
- Plus heaps and heaps of time.

Those ingredients helped turn dead things into fossil fuels, hence the name 'fossil'! Changing this recipe a little can change the fossil fuel you produce at the other end too. Coal, gas and oil are all made in the same way, only with some changes to the heat, pressure and time that go into the mix.

In the 1800s fossil fuels started becoming really useful for the first time, because they were cheap and powerful. The world we know today was built using coal, gas and oil, and we've kept using more and more of it ever since. But now we've hit a problem, well two of them actually.

The first is that the world's supply of fossil fuels is starting to run out. Coal, oil and gas all take millions of years to make, so once they're gone they're pretty much gone for good. But that's not the biggest problem with fossil fuels. Burning them is creating pollution which is causing the earth's climate to change, and scientists say the world needs to cut back or risk really bad consequences like rising sea levels and more extreme weather.

That's why seven of the world's most powerful countries have now decided it's time to kiss fossil fuels goodbye by the end of the century. It's a big decision to replace the fuel that's built our modern world. But these very powerful people all say it's a decision we have to make.

## The Wire

The Government has been accused of paying people-smugglers to turn back a boat full of asylum seekers. 65 asylum seekers were intercepted by an Australian border patrol boat. But the crew on the ship say Australian officials paid them to sail back to Indonesia which could be against the law.

So far the Prime Minister has refused to confirm or deny the story. But Indonesia is looking into what happened and the Opposition is calling for an investigation here too.

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After seven months asleep, the Philae space probe has woken up and phoned home! The probe landed on the surface of an asteroid late last year then ran out of battery. But as the asteroid has got closer to the sun, Philae has been able to recharge. Now the European Space Agency is hopeful they'll be able to use it to run some more tests.

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And in Georgia, wolves, bears, a hippo and a pig have all tasted freedom after flooding helped them escape from their zoo. This hippo looked pretty happy roaming the streets but had to be put to sleep so it could be taken home. But it's not all fun and games. Authorities in the area are telling people to stay inside while they track down the rest of the animals because many of them are dangerous.

## Station Sale

Reporter: Eloise Fuss

*INTRO: Okay. Would you allow another country to buy 1.6 percent of Australia? Well that's exactly what some people are predicting will happen when a massive collection of cattle stations owned by agricultural group S. Kidman and Co. go under the hammer. Next, Eloise finds out more about the sale and meets some of the kids who call these properties home.*

ELOISE FUSS, REPORTING: Just imagine, if it took 7 hours to ride from one side of your property to the other. Or if the mailman only visited twice a week because your place was so hard to get to. Or if your school work all had to come to you over the internet.

Well, that's what life's like for Cooper and Arena who live on The Peake Station in the South Australian outback.

COOPER: The Peake Station is over 8872 square kilometres, which is 2 million acres. I get to go working with my Dad, I get to muster, do some yard work, and just being out here in the middle of nowhere.

ARENA: I also like the privacy that comes with it, and how peaceful it is.

The Peake Station is just one of the big cattle stations owned by one company, called S Kidman and Co. They also own the largest cattle station in the world, Anna Creek. In total their stations cover more than 100,000 square kilometres, that's bigger than Tasmania.

But how did one company come to own so much of Australia? Well, the company was named after this guy for a reason.

Sir Sidney Kidman was one of Australia's most famous farmers. Back in the late 1800's, he left home at 13 years old to try to find work in the outback. But by 1917 he owned more station land than anyone in the world.

But now, something's happening to all of Sir Sidney Kidman's stations, including the station that these kids call home. They're being sold. All up, experts say the asking price could be more than 300 million dollars. So who's going to buy that much land, for that much money?

Well there are some Australian groups who are very interested. But there are also a few overseas groups too. And that's got some people a little concerned.

They're worried that too many Australian farms are being bought by people from overseas. Which could mean Australia won't have as much control over the land, or the food that's grown on it. For example, what if there was a huge food shortage in the future? Some people are worried that foreign owned farms could send all of the food they produce to their home country, rather than selling it here.

But other people say allowing overseas investors to buy farming land here can be a good thing. It helps farmers to get a better price for their land and means more money can be invested in the country. Some also say foreign groups can bring new agricultural techniques with them which can improve productivity.

But ultimately, the only opinion that really matters is the Australian Government's. Because when a sale is worth this much money any foreign buyer has to be approved by it first.

But whoever ends up owning them, these huge stations will always remain an important part of Australia.

## Online Poll

Okay, it's an interesting issue. So let's find out how you feel about it with a poll.

Should overseas groups be able to buy Australian farms? Head to our website to place your vote.

Now last week we asked you if the Government should be able to take away an Australian citizenship and after a massive 4400 votes this one is basically a draw. Thanks to everyone who cast a vote.

## Refugee Day

Reporter: Carl Smith

*INTRO: Now. The 20th of June is World Refugee Day. So to mark the date, we're going to take a closer look at the issue. Not just here but all over the world. Here's Carl with more.*

**CARL SMITH, REPORTING:** Our world is made up of 196 countries. But not all of them are as safe as ours. Wars, poverty or even just different ideas can threaten the lives of people in some countries, and that leaves them with only one option: to run. Someone who's had to run away from their home country because their life is threatened is called a refugee.

The word refugee comes from a French word which means to take shelter. And around the world the United Nations estimates there are at least 13 million refugees who need shelter or a new home right now. That's about half of Australia's population.

In the past few years most refugees have come from places where a lot of terrible fighting has been going on. Like Afghanistan and Syria in the Middle East. Many have also come from Somalia, Sudan and the Democratic Republic of Congo, African countries where violence and poverty are all too common.

You might expect most refugees would head first to rich countries like Australia, America or the UK. But you'd be wrong. Pakistan, Lebanon, Iran, Turkey and Jordan aren't rich countries, but between them they're providing shelter to more refugees

than any others - about 4 million. Many live in huge refugee camps like this one in Jordan.

Life here is tough and there's very little food to go around and some people can be stuck in camps like this for years while they wait for somewhere else to go. Australia allows about 14,000 refugees to be settled here each year. But many more would like to come here, which is why some choose to come by boat.

It's a very dangerous journey and the Australian Government has now decided that none of them should be allowed to settle here anymore. But did you know that refugees arrive by boat in other countries too, and in much larger numbers?

Here in the Mediterranean Sea more than 100,000 people have made the dangerous journey this year from all over Africa and the Middle East, to places in Europe like Italy. That's 100,000 just since the start of this year. This Italian ship's mission is to rescue as many as possible and bring them back to Italy safely. It's a really difficult job. But the captain of this ship says it's a really important one, because years ago many Italians were also forced to leave their homes.

SERGEANT MAJOR FRANCESCO CUONZO: I tell them that our ancestors also escaped when there was war.

And he says those Italian refugees are now important members of societies in Australia, the US and many other countries too. Finding the right way to help refugees is a complex problem.

There's no easy solution, but many people around the world are trying hard to find the right answer.

## Quiz

Okay, quiz time now. Good luck!

At the start of that story, we told you how many countries there are on earth. Is it

166

196

226

The answer is 196.

## Stand Up

Reporter: Nic Maher

*INTRO: Now. On the average day most kids sit down to eat breakfast, sit down whilst driving to school, sit down in class, then sit down on the couch once they*

*arrive home. It might be relaxing but could all of this sitting down be hurting us too? Here's Nic with a look at the evidence.*

NIC MAHER, REPORTING: Agent James Blonde. Your mission today, should you choose to accept it, is to take down a diabolical villain that's threatening our health and our wellbeing.

VILLAIN: I've been expecting you Mr Blonde.

No, James, that's not them.

VILLAIN: So who's the bad guy then?

No it's not you. Behind you! Get out the way!

It's, the chair!

It might sound pretty silly, but chairs (or more accurately, sitting) can be a real health hazard, just because these days, we do so much of it.

You might not realise just how much of the day you actually spend sitting. Most of us sit down for breakfast, in the car when we're driving around.

CHAUFFEUR: Where to Mr Blonde?

JAMES BLONDE: School.

When we're at school and when we get home after a long day, we just can't wait to get off our feet.

All up, the average Aussie adult spends about 9 hours a day sitting down.

And even if you're getting your recommended daily exercise, researchers are now saying that it doesn't cancel out all of the negative effects of sitting too much.

But why is sitting so bad for you?

When you're sitting for a long time your muscles switch off and your body isn't as good at processing fats and sugars.

So, if you've just eaten your blood sugar levels can stay high for hours.

In the long term it can lead to some pretty nasty problems like obesity, diabetes and heart disease.

Some experts even say sitting too much can be just as harmful as smoking! Don't worry, a little bit of sitting isn't a big deal. It's just when you're down for long periods of time that it starts to be a problem.

That's why experts now say that for every 20 minutes you're sitting down you should try to stand up for a bit, maybe have a stretch or go for a quick walk.

It seems like a pretty simple fix. But if you're at school you might not be able to get up and just go walk around. That's why schools like this one are trying to get kids off their chairs as much as possible.

Here at Mont Albert they've ditched regular desks completely and replaced them with standing desks.

JEREMY: Hi I'm Jeremy

CASEY: And I'm Casey. So come in and we'll show you a bit around the classroom and a bit about the stand-up desks.

JEREMY: One of the best things about the stand-up desks is that they're height adjustable. So, if you're sitting down you can do your work like this and if you're standing up you can do your work like this.

These guys say the desks are even helping them concentrate.

CASEY: I also really like the stand-up desks because I feel like I get so much more work done than when I'm sitting at a normal table. I also feel standing on the stand up desks makes me feel really good.

So Mr Blonde, it looks like defeating the chair might be easier than we expected.

## Quiz 2

Okay time for another quiz. How much exercise do experts recommend kids should get every day?

Is it

15 mins

30 mins

or 60 mins

The answer is 60 mins!

## The Score

Okay. Keen to see some sport? We've got you covered.

Aussie Matthew Dellavadova and his team the Cleveland Cavaliers might be down 3-2 in their NBA finals series against the Golden State Warriors but that hasn't stopped him winning a heap of new fans.

The basketball star has been praised by commentators for his gritty style of play, while American crowds have embraced him as one of their own.

While Dellavadova might now be really popular in the US, he's still got plenty of supporters back home in country Victoria where he was born.

HAYDEN: It's pretty amazing that he's come from a little town like Maryborough and he's playing in the big league with LeBron James and he's playing against the best player in the league right now in Stephen Curry.

JAMES: I think he's a good player and he should go far further with his game and how he plays it.

His team, the Cavs will have to win game six to keep the series alive. But even if they go down Australia will get a win anyway through Aussie veteran Andrew Bogut who's playing for the Warriors.

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To cricket now and Australia's won its second test against the West Indies by a massive 277 runs. The Aussies bowled out the home side for just 114 runs on day four, to sweep the series 2 nil. Steve Smith won the man of the match for his innings of 199 and 54 not out.

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The Matildas have beaten Nigeria in their second world cup match 2 - nil. The Aussies needed a win after losing their opener to the US but if they can draw their final group game against Sweden that should be enough for them to make it through to the round of 16.

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The Swifts have made it through to the Trans-Tasman netball league grand final after beating the Waikato Bay of Plenty Magic 60 - 52. And just like last year they'll be facing off against the Queensland Firebirds in the big game.

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And take a look at this from Aussie trick-shot group 'How Ridiculous'. The impressive basket filmed for an Australian TV show breaks the world record for the highest ever basketball shot at 126.5 metres. Let's see that one more time.

## Underwater Robots

Reporter: Matt Holbrook

*INTRO: Finally today building a robot is tough but what about trying to build one that can complete obstacle courses under water? That's what one robotics club has spent weeks trying to achieve. Matt joined them as they prepared to test their amazing inventions.*

HEATH: There's programming involved, there's cutting, there's experimenting.

MATTHEW HOLBROOK, REPORTING: Heath's 14, and for five weeks he and other members of this club have been working on this, the Sea Perch. It might not look like much, but it's got some serious power!



DAVID: We're testing things called Sea Perches, which are underwater submersible vehicles and we're testing them in a controlled course and making sure they can move and operate in the ways that we need them to.

HEATH: The Sea Perch itself is actually just a vehicle made out of a bunch of polypipes, noodle, gutter guard, a variety of different things and it's generally supposed to be made cheap.

Heath's always loved robots. A couple of years back he got involved in a program called STEMSEL which helps kids learn to program microchips. With his new skills he created this, a solar panel that moves with the path of the sun. It won him a trip to a robotics competition in Singapore where he and his dad found out about Sea Perch. Back home they had a go at making them then set up a club to help other kids do the same thing.

DAVID: I've always liked computers and I thought what better way to learn more about them than to do robotics. And I thought that would help me out in the future as well as getting a job in robotics or something like that.

MIA: You get to meet new people, you get to learn a lot of things and it's just fun all around.

Now, the plan is to race them in this special testing tank. But on the first day of testing, there's still a bit of tweaking to do.

HEATH: And we realised that the camera cable is too heavy so it actually sinks the Sea Perch and that is, of course, a problem.

Getting to this point has taken a lot of work. Apart from physically putting everything together, these guys have had to program it to perform the actions they want.

HEATH: It doesn't just do one thing it can do anything you can imagine it to.

DAVID: One of the main things is learning how to program the STEMSEL board and then the other thing is building the physical object and connecting all the wires to the main controller.

MIA: We had to program on our laptops. That took a while.

Don, Heath's dad, says the kids have learned heaps along the way.

DON: If these kids are interested, and all of these kids are, they can do amazing things, and they do and they learn so much. And watching them today and in the building process, how they've learnt how to solder and put things together and work as a team and work with other people and try things, that's awesome.

For now they're hoping to enter their robots into a serious competition.

MIA: Today we are testing our Sea Perches for future competitions. And we're going to win. YAY!

And who knows, this could be just the start of where robotics can take them!

## Closer

And that's it for BtN for today! But as always, there is plenty of extra stuff to see on our website. Teachers you can also visit our site to sign up for our teacher email. It'll tell you what stories we're covering ahead of time and what class activities we'll be posting with them. Okay thanks for joining us and see you next time!