

Questions for discussion

Episode 17 16th June 2015

Fossil Fuels

- 1. Give examples of fossil fuels.
- 2. How do living things turn into fossil fuels?
- 3. Which substance is one of the main ingredients in fossil fuels?
- 4. What three things are needed to create fossil fuels?
- 5. What is meant by the following statement: Changing the recipe a little can change the fossil fuel you produce at the end.
- 6. Fossil fuels are a renewable resource. True or false?
- 7. What are the disadvantages of burning fossil fuels?
- 8. What have seven of the wealthiest nations decided about using fossils fuels in the future?
- 9. What are some other energy options that could be used instead of fossil fuels?
- 10. Do you think it's a good idea for countries to stop using fossil fuels by the end of the century? Explain your answer.

Check out the BtN Fossil Fuels resource on the Teachers page.

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

Station Sale

- 1. Briefly summarise the Station Sale story.
- 2. Describe what life is like living on a station in the outback.
- 3. Which station do the kids in the BtN story live on?
- 4. How big is the station?
- 5. What do the kids like about living on a station?
- 6. Name three facts about Sir Sidney Kidman.
- 7. What is happening to the Kidman and Co stations?
- 8. Why are some people concerned about the sale of the stations?
- 9. Some people say that allowing overseas investors to buy farming land is a good thing. Why?
- 10. Do you think overseas groups should be able to buy Australian farms? Explain your answer.

Vote in the Behind the News online poll

Do the quiz on the BtN website

Refugee Day

1. Discuss the Refugee Day story as a class. Record the main points of the discussion.



- 2. Give some reasons why people flee their country.
- 3. The word 'refugee' comes from the French word meaning...
- 4. The UN estimates there are at least_____ refugees who need shelter or a new home.
- 5. Which countries do most refugees come from?
- 6. Most refugees flee to countries like Australia and the US. True or false?
- 7. About how many refugees are settled in Australia each year?
- 8. Where in Europe are many refugees travelling to by boat?
- 9. What do you understand more clearly since watching the BtN story?
- 10. How did this story make you feel?

Check out the BtN Refugee Day resource on the Teachers page

On Your Feet

- 1. What is the aim of `On Your Feet' day?
- 2. The average Aussie spends about _____hours a day sitting down.
- 3. Why is too much sitting down bad for your health?
- 4. What health problems can it cause later in life?
- 5. What do experts suggest people do if they are sitting for long periods of time?
- 6. How are schools and offices solving the problem?
- 7. What do the kids using standing desks think the benefits are?
- 8. How has it made a difference to how they feel?
- 9. What was surprising about this story?
- 10. How has your thinking changed since watching this story?

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

Underwater Robots

- 1. Discuss the *Underwater Robots* story with another student. Report back to the class with the main points.
- 2. How old is Heath?
- 3. What have Heath and other members of the robotics club been building?
- 4. List the materials that were used to make Sea Perch.
- 5. What does the STEMSEL program teach kids?
- 6. What did Heath make that won him a trip to a robotics competition in Singapore?
- 7. What do the kids like about being part of a robotics club?
- 8. What problems did they have with Sea Perch?
- 9. Describe the work that goes into making a robot like Sea Perch.
- 10. What have the kids learnt being involved in the program?

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





Teacher Resource

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KEY LEARNING

Students will develop a deeper understanding of what renewable and non-renewable energy is and the advantages and disadvantages of both.



AUSTRALIAN CURRICULUM

Science - Year 6

Energy from a variety of sources can be used to generate electricity (ACSSU219)

Science - Year 7

Some of Earth's resources are renewable, but others are non-renewable (ACSSU116)

Geography - Year 4

The natural resources provided by the <u>environment</u>, and different views on how they could be used sustainably (<u>ACHGK024</u>)



ACTIVITY

Before watching the BtN *Fossil Fuels* story, students will discuss the following in small groups and record their responses on an A3 piece of paper. Share and compare your ideas as a class.

- Have you ever seen a fossil? Describe.
- Do you know where fossils come from? Describe.
- Did you ever hear that coal and oil are fossil fuels?
- How long do you think it takes for fossil fuels to form?
- Will we ever run out of fossil fuels? Explain.
- Why are fossil fuels bad?
- What do we mean when we say "green energy"?

After watching the BtN *Fossil Fuels* story, respond to the following. Students will collect primary and secondary sources of information to learn more about energy and present their findings in a report.

- Think of 10 ways that you use energy at school.
- Write down the source of the energy and if it is renewable or non-renewable.
- Do you think we can live without fossil fuels? Why or why not?

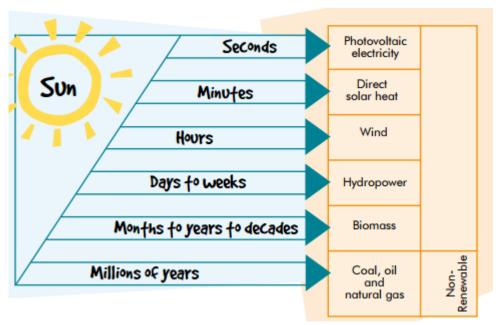




Energy timeline

Fossil fuels are non-renewable energy sources that formed more than 300 million years ago during the Carboniferous Period - long before dinosaurs roamed the Earth. Fossil fuels are made up of plant and animal matter. When plants and animals died, their bodies decomposed and were buried under layers of earth. Millions of years later we have the three forms of fossil fuel: oil, natural gas and coal.

- Students will research and create an energy timeline to demonstrate an awareness between renewable and non-renewable resources.
- Download this teacher's "<u>Don't Waste Your Energy</u>" guide and refer to pages 61-62 for the Energy Timeline activity and related worksheet.



Sustainable Schools: A teacher's guide to energy activities

• Following the time line construction students should nominate one resource to research in detail and present a report on their findings. Some points to include: What am I? How do I work? Am I renewable or non-renewable? My advantages and disadvantages, location-where can you find me at work? My future?

Resource - Sustainable Schools: A teacher's guide to energy activities

 $\underline{http://www.sustainableschools.sa.edu.au/files/pages/Dont\%20waste\%20your\%20energy/DontWasteYourEn\\ \underline{ergyWeb.pdf}$





Fossils experiment

What do fossils have to do with energy? Conduct this bread fossils experiment to discover the origin of fossil fuels. All you need is 3 slices of bread, some lollies, heavy books, paper towel, magnifying glass and clear drinking straws.

• Download this <u>Fish Fossils Fuel lesson plan</u> and refer to pages 6-9 for step by step instructions and lab questions.



Resource - Energy 4 Me: Fish, Fossils and Fuel

http://energy4me.org/wp-content/uploads/Fish-Fossils-Fuel-Lesson-Plan.pdf



Picture the future

Students will explore how they see climate change, low emission technologies and sustainable futures, by completing the following sentence.

I hope a clean energy future can include...

Design a sustainable community

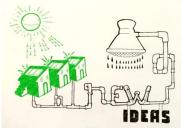
Students will design a community that relies more on renewable resources. For example, redesign a community with an emphasis on pedestrians, bikes and public transport, rather than on the automobile. Students may create a community where we can work, go to school and shop closer to where we live, create more bike lanes, have more people living closer together so they can support public transport and create safer streets to encourage walking and riding.

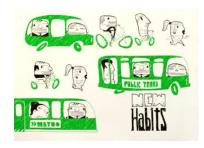
Students should consider the following:

- What renewable energies will you need to power your city?
- How can your city be more water smart? Consider including storm water harvesting technology.
- Will you build lots of little houses or a few high-density apartment buildings?
- Is your city pedestrian and cyclist friendly?
- What sort of transport will your city use?
- What recycling programs will your city have?

Watch this YouTube animation about climate change, energy and action to get inspired!











Classroom G7 summit

Form your own classroom G7 summit to discuss the issue of climate change and think of possible solutions to the world's overuse of fossil fuels. Divide the class into seven groups, to represent each of the countries participating in the G7 summit.

Each group will address the following problem:

Problem: Pollution due to Overuse of Fossil Fuels

We depend on non-renewable sources of energy such as fossil fuels and are responsible for most of the CO2 emitted. We agree that renewable energy sources are the answer to future energy supplies. We understand that it will take time and resources to convert to green energy, but it is necessary for a sustainable future.

Each group will respond to the problem by suggesting possible solutions. Students will consider that we need energy sources that help meet the growing energy needs of the world's population and global economy, and we need energy sources that minimise our impact on the environment. For example:

We ask that you:

- Develop affordable, more efficient, renewable energy technology.
- Have programs in schools to educate kids about new ideas, new habits and new technologies for a more sustainable future.
- Put in place laws that encourage companies and individuals to use renewable energy.
- Pay for research into research new technologies like low emission vehicles as well as making nuclear power safer.

Each group will work together writing their ideas on a piece of A3 paper. Groups can organise their information in the form of a SWOT analysis (strengths, weaknesses, opportunities and threats). Students could discuss ways in which young people can take action to help reduce their use of fossil fuels. What would happen if we didn't take action? Each group will report their ideas and findings back to the class. Explain to students this activity is an opportunity to learn about and appreciate different perspectives.

As a class, reflect on this activity:

- Did each group bring similar or different ideas to the group?
- What did you enjoy about this activity?
- What was challenging?

Research and ideas

- Visit the <u>J7 summit website</u> The J7 Summit is an opportunity for young people aged 14 to 18 to
 meet with other youth delegates from G7 countries and talk in-depth about issues. Visit the <u>Teams</u>
 page to hear about what young members want to achieve on the J7 summit.
- Watch the Behind the News G8 Summit story to learn more about what it does.





Classroom debate

Prepare for your class debate using the following statement (or make up one of your own).

Renewable energy is the answer to future energy supplies

Students will work in small groups to brainstorm ideas for both the affirmative and negative and record their ideas on a piece of A3 paper. Students will choose the strongest points from their list of ideas to share with the class.

Consider running your own class debate on a topic. Refer to <u>Debating SA's resources</u> for worksheets, checklists and fact sheets on writing speeches and running class debates.

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?
- Did my opinion change?
- What did you learn from this activity?



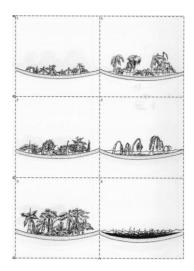
Fossil fuel flip book

Coal, oil and natural gas are formed below the surface of the earth. These fossil fuels are made from dead plants and animal remains and were deposited around the time when dinosaurs roamed the earth.

Create an animated fossil fuel flip book to see how fossil fuels were formed. Download this <u>resource</u> (refer to pages 25-27) cut out the squares along the dotted lines and staple together in order.

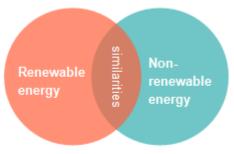
Resource – Sustainable Schools: A teacher's guide to energy activities

http://www.sustainableschools.sa.edu.au/files/pages/Dont%20waste%20your%20energy/DontWasteYourEnergyWeb.pdf



Venn diagram

Compare elements of fossil fuels (non-renewable energy) and clean energy (renewable energy). Use a Venn diagram to illustrate the differences and similarities.



An example of a Venn diagram



Make a difference

Consider setting a challenge for your class to reduce the amount of fossil fuels you use and build awareness about climate change.

Watch this BtN <u>Outdoor Class</u> story, where a class of school kids in Alice Springs recently set themselves a challenge - to spend a whole week outside, with no access to electricity at all.



ABC News – G7 meeting: World leaders pledge to act on climate change, phase out fossil fuels by end of century

http://www.abc.net.au/news/2015-06-09/g7-leaders-pledge-to-phase-out-fossil-duels-by-end-of-century/6530838

National Geographic – Non-renewable energy

http://education.nationalgeographic.com.au/education/encyclopedia/non-renewable-energy/?ar_a=1

Solar Schools - Non-renewable energy

http://www.solarschools.net/resources/stuff/non_renewable_energy.aspx

Behind the News – Greenhouse Gases

http://www.abc.net.au/btn/story/s4122664.htm

Behind the News – Australian Energy http://www.abc.net.au/btn/story/s4047564.htm

Behind the News – Nuclear Industry http://www.abc.net.au/btn/story/s4178056.htm

ABC Splash - Fossil Fuels

http://splash.abc.net.au/digibook/-/c/618020/from-fossils-to-fuels



Subscribe to our weekly newsletter for an update on upcoming BtN stories and other useful and relevant teacher information. Visit the BtN website and go to the Teachers page to join up.

Encourage your students to be active and informed citizens by watching our 10 minute news program each day. Go to the BtN homepage and click on the 3News link.







Teacher Resource

Episode 17 16th June 2015

Refugee Day



FOCUS QUESTIONS

- 1. Discuss the Refugee Day story as a class. Record the main points of the discussion.
- 2. Give some reasons why people flee their country.
- 3. The word 'refugee' comes from the French word meaning...
- 4. The UN estimates there are at least_ refugees who need shelter or a new home.
- 5. Which countries do most refugees come from?
- 6. Most refugees flee to countries like Australia and the US. True or false?
- 7. About how many refugees are settled in Australia each year?
- 8. Where in Europe are many refugees travelling to by boat?
- 9. What do you understand more clearly since watching the BtN story?
- 10. How did this story make you feel?



ACTIVITY

Before any analysis or discussion about refugees:

- Think about the students with refugee experience at your school and the sensitivities you will need.
- Establish with your students some key definitions and stereotypes.

Negotiate with students how many activities they complete from each section.



REMEMBER / UNDERSTAND

- After watching the BtN Refugee Day story, respond to the following questions:
 - What did you SEE in this video?
 - What do you THINK about what you saw in this video?
 - What does this video make your WONDER?
 - What did you LEARN from this story?
 - How did this story make you FEEL?



KEY LEARNING

Students will develop a deeper understanding of what a refugee is and the issues affecting them. Students will identify and challenge stereotypes of refugees in the media.



CURRICULUM

Civics and Citizenship - Year 6

The obligations citizens may consider they have beyond their own national borders as active and informed global citizens (ACHCK039)

Civics and Citizenship - Year 5 & 6

Identify over-generalised statements in relation to civics and citizenship topics and issues (ACHCS029) (ACHCS041)

History - Year 6

Stories of groups of people who migrated to Australia (including from ONE Asian country) and the reasons they migrated, such as World War II and Australian migration programs since the war. (ACHHK115)

History - Year 5 & 6

Identify questions to inform an historical inquiry (ACHHS100) (ACHHS119)



- Students will develop an understanding of what a refugee is and write a class definition. Respond the following as a class recording responses on a large sheet of paper.
 - Who is a refugee? (Explain to students the ways in which a refugee and an asylum seeker differ from a migrant)
 - Where do refugees come from and why?
- Can you juggle? Refugees have to learn how to juggle with problems living in a new place.
 - In small groups, make a list of problems refugees may need to juggle on a daily basis?
 Report your findings to the class.
 - Check out this simple and fun <u>balloon game</u>. The 'balloon game' is a simple and fun way to deliver an attention grabbing event that will raise awareness of some of the issues faced by refugees and asylum seekers. It uses the challenge of simultaneously juggling five balloons to encourage participants to empathise with the situations new arrivals face.



APPLY / ANALYSE

- As a class, talk about your feelings of home and belonging to a community. Think about the diversity
 in backgrounds, experiences, interests and age of people in your school community. Broaden your
 discussion and talk about your local community and Australia as a whole.
 - Explain to students that developing positive relationships can help build a sense of belonging and inclusion. Provide a range of opportunities for students to share their personal stories to create an atmosphere of cultural respect and acknowledgement of diversity.
 - What do you like about being part of your school community?
 - What makes you feel safe in your school community?
 - How do you welcome new students to your school community?
 - What are some of your school's values?
 - Describe some of your school's traditions. Why are they important?
 - What are the advantages of belonging to a culturally diverse community?
- Get to know a refugee and get involved in the <u>UN's campaign</u> for Refugee Day. Millions of families have fled their homes to escape war or human rights abuses. Millions of mothers, fathers, sisters, brothers who are also students, musicians, cooks, and so much more. Refugees are ordinary people, living through extraordinary times.





Get to know > Yaquob



Get to know > Yadira

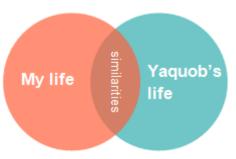


Get to know > Ibrahim



Get to know > Hany

- Get to know a refugee featured on the UNHCR website. Get to know <u>Yaquob</u>, <u>Yadira, Ibrahim</u> and <u>Hany</u>.
- Find out more about where they come from and why they had to leave their home.
- Compare elements of your life and the refugee's life. Use a Venn diagram to illustrate the differences and similarities.
- Write a letter to them, sending a message of support and share your message via the <u>UNCHR website</u> or the BtN *Refugee Day* story page.



An example of a Venn diagram

- Students will collect, analyse and compare media texts that represent ideas about refugees in
 different ways. Explain to students that sometimes news is presented which is biased or
 sensationalist. Reports sometimes present certain facts but ignore others, and information and
 statistics are misrepresented to support a particular point of view.
 - As a class find reports in the media that portray refugees in both positive and negative ways.
 Find a variety of articles from different news sources.
 - Divide the class into small groups and provide each group with one or more of the news articles. Students will analyse the report/s to find out if it represents refugees in a fair and balanced way and respond to the questions below.
 - Further activity: Students will imagine they are journalists and write a 100 word story on a family that were forced to flee their home and have arrived in Australia seeking refuge.
 Include a headline or images with your report.



- What does the headline of the report suggest?
- What words does the author use to describe refugees? Sort the words into two categories positive and negative words.
- What impression of refugees do these words create for the reader?
- How much factual information is used to support the author's claims?
- Do you think this report has been accurate, fair and responsible in covering refugee issues? Why or why not?



EVALUATE / CREATE

- The theme for Refugee Week 2015 is "With courage let us all combine". Discuss as a class. Record your student's responses on the class whiteboard.
 - O What does this theme mean to you?
 - o Why do you think the Refugee Council of Australia chose this theme?
 - Do you recognise the words "with courage let us all combine" from a well-known song? They come from the 2nd verse of the Australian anthem. Read the 2nd verse of the Australian anthem (in pairs) and analyse the words. How can we encourage Australians to improve our nation's welcome for refugees? Share your ideas as a class.
 - Think of reasons why it takes courage to be a refugee. Think of reasons why it takes courage to speak out against injustice.
 - Students will design and create a poster to reflect the theme for Refugee Week 2015 and hold an art exhibition to present their artworks. The exhibition will celebrate the courage, resilience, strength and contributions of people of refugee background. Invite other classes to participate in the exhibition.
- Organise your own Refugee Week event or activity at your school. Visit the Refugee Week website
 and download their resource kit for a guide on planning your own event.
 - Brainstorm ideas as a class.
 - o What goals do you have for your event/activity? What are you trying to achieve?
 - O What kind of event will you be holding?
 - Plan your budget will you be fundraising?
 - Use your contacts including your school community and local council.
 - o Evaluate your event how much of a success was it?



USEFUL WEBSITES

Refugee Week

http://www.refugeeweek.org.au/

Behind the News – Young Refugee http://www.abc.net.au/btn/story/s3639711.htm

Behind the News – Refugee Camp http://www.abc.net.au/btn/story/s4023310.htm



National Geographic Education - Refugees

http://education.nationalgeographic.com.au/education/encyclopedia/refugee/?ar a=1

UNHCR - The UN Refugee Agency

http://www.unhcr.org/cgi-bin/texis/vtx/home

Refugee Council of Australia – Refugee Week Resource Kit

http://www.refugeeweek.org.au/wp/wp-content/uploads/2015/04/2015-Refugee-Week-Resource-Kit.pdf

Racism No Way – Asylum Seekers, Refugees and Migrants

http://www.racismnoway.com.au/teaching-resources/factsheets/44.html



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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.

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.



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.

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.

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.

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.

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 poly-pipes, 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, say 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!

