

Questions for discussion

Episode 32
11th November 2014

G20 Preview

1. Before you watch this story, make some predictions about what you think it will be about.
2. What is the G20 Summit?
3. Where is the G20 being held this year?
4. How many countries make up the G20?
5. What sorts of issues do the leaders discuss?
6. How much of the world's population is represented at the Summit?
7. Why do they hold the G20 each year?
8. Complete the following sentence: If too many people were involved in the G20 it would be hard to...
9. How do the decisions made at the G20 affect you?
10. What issues do you think should be discussed at the G20?

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

Greenhouse Gases

1. Briefly summarise the *Greenhouse Gases* story.
2. Name a greenhouse gas.
3. How do greenhouse gases affect the temperature on earth?
4. Greenhouse gases are a natural part of the earth's climate system. True or false?
5. How are greenhouse gases like blankets?
6. What do energy sources like coal and petrol release into the atmosphere?
7. Scientists say that greenhouse gases have risen to their highest level in _____ years.
8. What impact could increased temperatures have on the planet?
9. How do trees help reduce the amount of carbon dioxide in the atmosphere?
10. What can people do to help reduce the amount of greenhouse gases in the atmosphere?

Check out the BtN *Greenhouse Gases* resource on the Teachers page
<http://www.abc.net.au/btn/teachers.htm>

Do the quiz on the BtN website <http://www.abc.net.au/btn/quiz.htm>.

War Nurses

1. In which war did Olive Haynes serve?
2. About how many women served in the Australian Army Nursing Service?
3. Olive was a
 - a. Doctor

- b. Nurse
 - c. Soldier
4. Women were allowed to fight in World War I. True or false?
 5. Where did most of the fighting in WWI take place?
 6. What risks did the nurses face in the war?
 7. Describe the sorts of jobs women did back home during the war.
 8. When did WWI end?
 9. Why do you think women weren't recognised for their efforts in the same way returned soldiers were?
 10. How did you feel watching this story?

Check out the BtN *War Nurses* resource on the Teachers page
<http://www.abc.net.au/btn/teachers.htm>

Rosetta Mission

1. What is the aim of the Rosetta mission?
2. How far has the Rosetta spacecraft travelled?
3. Which space organisation launched the spacecraft?
4. What are comets made up of?
5. Studying comets might help explain...
6. What would the comet smell like on earth?
7. Why is landing Rosetta on the comet difficult?
8. Explain how they are planning to land the spacecraft on the comet.
9. Illustrate an aspect of the story.
10. What was surprising about the *Rosetta Mission* story?

Vote in the BtN poll. Go to <http://www.abc.net.au/btn/polls.htm>

Fairy Business

1. Discuss the *Fairy Business* story with another student.
2. Describe Samara's business.
3. Why did Samara start making fairy houses?
4. About how many fairy houses has she made?
5. What is the name of Samara's business?
6. Why did she decide to write a book about fairy houses?
7. How does Samara give back to the community?
8. Where is she living at the moment?
9. What tips does Samara give for starting a business?
10. If you were to start your own business, what would it be?

Write a message to Samara and post it in the comments section on the story page.
Follow the instructions to make your own fairy garden (link)

Activity

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Greenhouse Gases

Key Learning

Students will investigate and describe the greenhouse effect. Students will consider the consequences for not reducing greenhouse gas emissions.

The Australian Curriculum

Science / Science Understanding / Biological sciences

The growth and survival of living things are affected by the physical conditions of their environment ([ACSSU094](#)) Year 6



Science / Science as a Human Endeavour / Nature and development of science

Science involves testing predictions by gathering data and using evidence to develop explanations of events and phenomena ([ACSHE098](#)) Year 6



Discussion Questions

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7. Scientists say that greenhouse gases have risen to their highest level in _____ years.
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9. How do trees help reduce the amount of carbon dioxide in the atmosphere?
10. What can people do to help reduce the amount of greenhouse gases in the atmosphere?

Activities

Keywords

Watch the BtN *Greenhouse Gases* story again and ask students to record as many key words as they can. Students then clarify their understanding of the key words by writing down what they think the word means. Swap definitions with a partner and ask them to add to or change the definition. Check them using a dictionary or other source.

| Key word | My definition | Dictionary definition |
|----------------|---------------|-----------------------|
| Greenhouse gas | | |
| Atmosphere | | |
| Climate change | | |
| Energy | | |
| Gas emissions | | |

Greenhouse effect

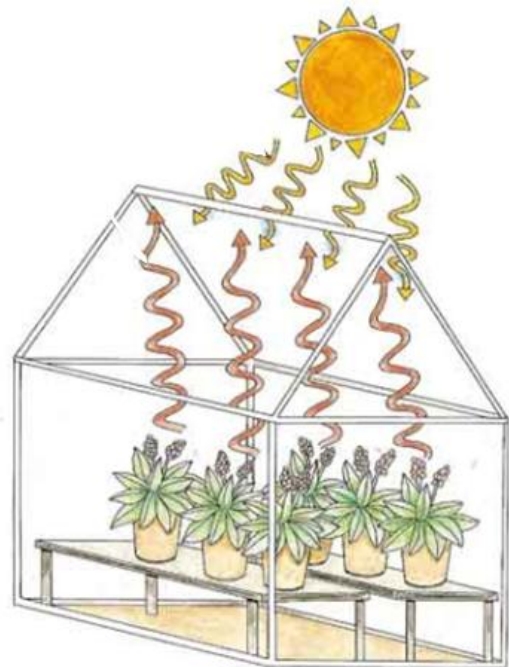
What is the Greenhouse effect?

Ask students to discuss their understanding of the greenhouse effect. Students will then draw on data from their own investigations and secondary sources.

- What is the greenhouse effect?
- Why is it called the greenhouse effect?
- How is the earth a greenhouse? What are the similarities between earth's atmosphere and a greenhouse that you would find in a garden?

Teachers, visit this website for ideas on explaining the greenhouse effect.

http://www.epa.vic.gov.au/AGC/ti_explaining_greenhouse_effect.html



Greenhouse effect diagram

Students will describe and illustrate the greenhouse effect. Include the following elements: sun, earth, atmosphere, ozone layer and greenhouse gases.

Research questions

- The greenhouse effect acts like a blanket keeping the earth warm. Explain this concept.
- If the greenhouse effect did not exist, would the earth be cooler or warmer? Explain.
- What human activities are releasing more gases to the overall amount of gas in the atmosphere?
- Some human activities raise gas emissions and therefore enhance the greenhouse effect. As a result the earth's temperature rises. True or false?

Considering consequences

Ask the class to consider a range of consequences for not reducing greenhouse gas emissions. Rate the consequences on a scale of 1 to 10, where 1 is a low impact and 10 is severe impact. Have students give their opinion on the likelihood of each consequence. Below are some suggested consequences:

- Rising temperatures
- Ice will melt
- Sea levels will rise
- Plants and animals at risk
- Ecosystems will be affected (e.g. the Great Barrier Reef ecosystem)
- Health will be affected
- Extreme weather (heat waves, flooding, bushfires, drought)

Taking action

Ask your students '*What can we do and why is it important to get involved in tackling climate change?*'

Facilitate a brainstorming session and record students' responses on a mind map. Individually or in pairs students will explore ways that their school and home can reduce energy demand, become more energy efficient and incorporate renewable energy sources.



Students can undertake one or more of the following activities:

- Make a time capsule. Students will include images from magazines, newspapers or students' own drawings to convey their ideas. Students will make predictions about what they think the future will be like. The time capsule could document how governments, business, school communities and homes and families are trying to become more sustainable. Provide the following prompt for students to use when writing their short essay: 'when you open this time capsule in the year 2020 I think ...'
- Develop an action plan using flowcharts, consequence charts and timelines that your school can follow to show what they are doing in response to climate change.
- Contact your local council and/or schools in your area to share ideas on how your community can reduce their greenhouse gas emissions.
- Write letters to editors of newspapers expressing your schools views on climate change and how it may impact on communities, plants and animals in your local area.
- Contribute a class article to the school newsletter sharing your research.
- Invite a scientist to visit your school to talk about the effects of climate change.

Further activity

Understanding Climate Change. This unit introduces students to the key issues involved with global change and how they relate to our changing climate. Students explore different sources of greenhouse gas emissions and seek information detailing the potential impact they have on global climate.

<http://www.csiro.au/Portals/Education/Teachers/Classroom-activities/CarbonKids/CarbonKids-Understanding-Climate-Change.aspx>



Homeley Greenhouse Horror Story. An Australian family finds out why their energy bills are soaring. Join the McSweeney-Glenright family as the Carbon Cops audit their energy use around the house, putting their water use, transportation options and household heating under the microscope. <http://splash.abc.net.au/media/-/m/520847>



Related Research Links

Behind the News – Sheep Burps

<http://www.abc.net.au/btn/story/s3689506.htm>

Bureau of Meteorology – Greenhouse effect

<http://www.bom.gov.au/climate/glossary/greenhouse.shtml>

NASA Climate Kids – What is the greenhouse effect?

<http://climatekids.nasa.gov/greenhouse-effect/>

Essential Energy – The Greenhouse Effect

<https://www.essentialenergy.com.au/content/education-the-greenhouse-effect>

EPA – A student's guide to global climate change

<http://www.epa.gov/climatestudents/scientists/index.html>

Classroom Antarctica – Greenhouse effect and climate change

<http://classroom.antarctica.gov.au/climate/greenhouse-effect-and-climate-change>

Sustainable Schools – Don't waste your energy

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

Activity

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War Nurses

Key Learning

Students will create written journals and narratives reflecting the daily life experiences of war nurses. Students will learn about the roles and responsibilities of war nurses.

The Australian Curriculum

History/Historical Knowledge and Understanding/Community and remembrance

Days and weeks celebrated or commemorated in Australia (including Australia Day, ANZAC Day, Harmony Week, National Reconciliation Week, NAIDOC week and National Sorry Day) and the importance of symbols and emblems. [\(ACHHK063\)](#)
Year 3



History/Historical Skills/Analysis and uses of sources

Locate relevant information from sources provided [\(ACHHS084\)](#)
Year 4



Locate information related to inquiry questions in a range of sources [\(ACHHS102\)](#) [\(ACHHS121\)](#) Years 5 & 6



History/Historical Skills/Chronology, terms and concepts

Sequence historical people and events [\(ACHHS081\)](#) [\(ACHHS098\)](#) [\(ACHHS117\)](#) [\(ACHHS205\)](#) Years 4, 5, 6 & 7



Use historical terms [\(ACHHS082\)](#) [\(ACHHS099\)](#) [\(ACHHS118\)](#) [\(ACHHS206\)](#) Years 4, 5, 6 & 7



History/Historical Skills/Explanation and Communication

Develop texts, particularly narratives and descriptions, which incorporate source materials [\(ACHHS105\)](#) [\(ACHHS124\)](#) Years 5 & 6



Discussion Questions

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7. Describe the sorts of jobs women did back home during the war.
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Activities

Graphic organiser

Discuss the *War Nurses* 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 prior knowledge on this topic and consider what they would like to know and learn.

| What do I <u>know</u> ? | What do I <u>want</u> to know? | What have I <u>learnt</u> ? | <u>How</u> will I find out? |
|-------------------------|--------------------------------|-----------------------------|-----------------------------|
| | | | |

Hold a classroom discussion using some of the following questions.

- What did you learn from watching the BtN *War Nurses* story?
- Why do you think women wanted to serve as war nurses during the First World War?
- Imagine what the conditions would have been like for war nurses. Discuss in pairs.
- What are some of the risks and challenges that war nurses face going to war?
- Do you think it is important to learn about war nurses? Why or why not?
- How did you feel watching this story?

Research project

Students will research an Australian nurse that has served in war. Students will locate relevant historical information from sources provided and present their findings to the class.

- In what war did they serve?
- What is their background? E.g. family, where were they born, education.
- Create a timeline of their life. Consider adding photos and video.
- What were their roles and responsibilities as a war nurse?
- Did they receive any awards? If yes, what did they do to earn this award?
- Write a journal entry depicting a day in the life of this nurse.

Research sources

Stories of Australia's wartime nurses – <http://www.awm.gov.au/sites/default/files/Devotion.pdf>

We served too – <http://www.awm.gov.au/sites/default/files/primary-we-served-too.pdf>

Rachael Pratt – <http://www.awm.gov.au/sites/default/files/primary-rachael-pratt-1.pdf>

Florence Nightingale – <http://www.awm.gov.au/sites/default/files/primary-nightingale-1.pdf>

Betty Jeffrey – <http://www.awm.gov.au/sites/default/files/primary-betty-jeffrey-1.pdf>

Bessie Pocock – <http://www.awm.gov.au/sites/default/files/primary-bessie-pocock.pdf>

Letter writing

Imagine you are a nurse on board a ship travelling abroad to serve in the First World War (see photographs below). Write a diary entry or letter describing what you are doing, the conditions, and how you are feeling.



Soldiers and nurses aboard HMAT Euripides prior to its departure, May 1915.
<http://www.awm.gov.au/education/schools/resources/hild-a-samsing/>



Australian War Memorial
http://www.awm.gov.au/education/memorial-boxes/1/the-uren-family_look/

Poetry

The following poems were written by soldiers about their nurses. Read them aloud as a class and then answer the questions below. Students will then write their own short poem about war nurses. Make a classroom poetry book using the students' poems.

- How did you feel listening to these poems?
- What words were used to convey feeling and emotion?
- What images do these poems evoke? Illustrate an aspect of the poem.
- Did you notice any patterns? For example, rhyme or line structure.

A prayer of thanks

The night is dark and dank and drear,
I toss upon my fevered bed
And softly comes on soundless feet
An earthly angel to my head;
And over my burning brow her hand
So soft and cool in sweet caress,
A healing touch that soothes my pain
With loving care and tenderness.
God bless "The Rose of No Man's Land",
Who guides me through my night of pain,
And keep her safe throughout the storm.

Anonymous. AWM PR 00526

Smilin' thru'

Though fate has been unkind to us with sickness and in pain,
It takes the kindness of the nurse to bring us health again;
Her smiling face so cheerful, with radiance aglow,
I'll praise her work unending wherever I may go.
No words that I can utter with justice half express
The gratitude I'll always feel, the depths you cannot guess.
The kindness and devotion bestowed in Mercy's cause,
Deserves the highest praise of all – a round of loud applause!
No doubt they have their troubles (who hasn't some these days?)
But they never show they have them, dispensing kindness many ways.
There's one just here as I'm writing, who is always bright and jolly,
And the first prize I would surely give to one whose name is Polly.
So Australia is indebted, and the soldier thankful too,
To the sisters and the nurses, with their motto *Smilin' thru'*.
Farewell I'll soon be leaving, you've done so much for me,
For others in their illness and Australia generally.

A.M. McDermott, AWM PR 88019

Nurses in poetry – resource

<http://www.awm.gov.au/sites/default/files/primary-nurses-in-poetry-1.pdf>

Olive Haynes – We Are Here Too

Olive Haynes, who featured in BtN's *War Nurses* story, was one of around 3000 women who served with the Australian Army Nursing Service.

Olive Haynes' war stories are now well known thanks to a book compiled by her daughter Margaret Young. Mrs. Young used her mother's diary and hundreds of letters from the front to help compile the book which is called '*We Are Here Too*'.

- What do you think is meant by the title '*We Are Here Too*'?
- What can we learn from the letters and journal entries written by war nurses? Why are they so important to us now?
- What other historical sources can help us learn about the past?

Memorial Box: Hands on activity

Australian War Memorial – Memorial Box

Borrow a memorial box from the Australian War Memorial. Memorial boxes can be used in different ways by students of all ages from primary through to senior secondary. They can be adapted to cover a wide range of curriculum areas, including history, social studies, politics, language, visual arts, cultural and gender studies.



Memorial box #5 – We want to do more! The experience of women and children during the Second World War

Many women were left largely on their own in the home and workplace during the Second World War. This box explores opportunities opened up to women who enlisted or who took over jobs that had belonged exclusively to men before the war.

Below are some examples of the type of objects you will find in this Memorial Box.



Memorial Box links

- Learn more about Memorial Box #5 <http://www.awm.gov.au/education/schools/memorial-boxes/05-women-and-children-in-ww2/>
- Download the resource book for Memorial box #5 http://www.awm.gov.au/education/box/05_res_book.pdf
- Book a memorial box <http://www.awm.gov.au/education/schools/memorial-box/agents/>

Related Research Links

Australian War Memorial – Australian Nurses (resources)

<http://www.awm.gov.au/education/schools/resources/nurses-primary/>

Women at War: the changing role of women in times of conflict

http://www.dva.gov.au/commems_oawg/commemorations/education/Documents/workingtheweb_5.pdf

Behind the News – Remembrance Day

<http://www.abc.net.au/btn/story/s3880227.htm>

Australian War Memorial – Memorial Box

<http://www.awm.gov.au/education/schools/memorial-boxes/05-women-and-children-in-ww2/>

Australian War Memorial – Stories of wartime nurses

<http://www.awm.gov.au/sites/default/files/Devotion.pdf>

BtN: Episode 31 Transcript 11/11/14

Coming up.

- To mark Remembrance Day, we take a look at the role women played in WWI.
- Find out what greenhouse gases actually are and how they mess with the planet.
- And meet the 14 year old kid who's already running her own business.

INTRO: Hey it's Nathan here, welcome to Behind the News. This week there is going to be a big event happening in Australia.

G20 Preview

Reporter: Natasha Thiele

INTRO: Leaders from some of the world's most powerful countries are all converging on Brisbane for the G20. It's a meeting that aims to solve some of the biggest issues facing the globe. Here's Tash with more.

NATASHA THIELE, REPORTER: Have you ever wanted to know what happens inside an exclusive club? Well there are two very exclusive clubs meeting in Australia right now. The first is this one, the exclusive kids' antique club. The second is just a bit bigger and just a bit more important. It's called the G20 and this year it's meeting in Brisbane.

The first thing to know about exclusive clubs is that you need an invite to be able to attend. For the kids' antique club, the members have to be massive fans of old stuff. But for the G20, selection works a little differently.

This group's made up of 19 countries, plus a representative from the European Union and only the most powerful countries are invited to be a part of it. The 19 countries who are members together represent two-thirds of the world's population and 85 percent of the world's money. So they're a powerful group when they get together.

But why do these meetings have to be so exclusive? Why can't they be open to all?

Well sometimes, if you have too many people in a club it can be hard to make decisions. At the G20 there are a lot of important issues to discuss. Keeping the numbers low helps to keep things focussed.

So what's on the agenda at these big meetings? In the antique club, the agenda is always interesting but not exactly big issues. But at G20, they get to deal with some of the biggest issues facing the world. Topics that often get a mention are trade, jobs, energy and inequality among others. But don't expect them to solve all the world's problems with one meeting.

Coming to an agreement on big issues isn't always easy and disagreements can happen at G20 too. Negotiations can go on for ages and solutions can be hard to agree on. That's why they have to hold them each year.

But big decisions can come out of G20 meetings and because most of these decisions relate to what happens in the future. They will directly affect you and the world you'll live in. What won't affect you though, is everything decided at this exclusive meeting. Unless of course you're a big fan of antiques.

Now, we did hear there that there are some benefits to only inviting certain countries to the G20. But there are probably many other countries that would love to be a part of it. So that's our poll this week.

Online Poll

Should all countries get an invite to the G20?

To vote just head to our website.

Now we're about to head into the wire but before we do let's take a quick look back at our poll from last week. We asked you if it was okay for kids to have days off for holidays or birthdays.

And the result. After nearly 5000 votes!!! It seems you guys think that's completely fine! Why am I not surprised? Thanks for voting!

Time now for a quick rundown of the other big moments from the past week.

The Wire

In the Wire this week.

Tight security is in place in Brisbane for the G20 leaders meeting.

Hundreds of guards and police are patrolling the area.

And they're checking anyone and anything coming in.

It's illegal for people to carry all sorts of things at the event without a good excuse including eggs and glass jars!

On top of that some hotel rooms have been completely stripped to make sure the world's leaders are safe.

In Melbourne one of Australia's biggest sporting events ended with some really sad news.

Two of the 22 horses in this year's Melbourne Cup died shortly after they finished.

The race favourite Admire Rakti collapsed after coming last and another horse was startled by the crowd and broke its leg.

So it had to be put down.

A new school uniform could help protect students from skin cancer.

Researchers found longer sleeves, shorts and shirts could protect us more than wearing a hat!

The researchers said the new uniforms would make a big difference especially in Queensland where the rates of skin cancer are among the highest in the world.

Greenhouse Gases

Reporter: Carl Smith

INTRO: To the environment now and some of the world's top scientists now say greenhouse gas levels are the highest they've been in 800 thousand years. The warning was contained in the United Nations latest report on climate change which was released last week. But what actually is greenhouse gas? And how does it affect our atmosphere? Here's Carl with the rundown.

CARL SMITH, REPORTER: Heat from the sun. It keeps us warm, it makes trees grow, giving us food, and it pretty much keeps everything alive and happy.

But what happens to all that bright white energy after it reaches us here on earth?

KID 1: For me they give me a bit of Vitamin D, and for the tree they help it stay alive.

KID 2: Part of it gets absorbed and part of it goes up into space

KID 3: It depends what's on the ground. Sometimes it reflects up into the air, and sometimes it might reflect onto you.

In a way they're all right. Some of the sun's hot rays are absorbed, warming up the planet, but a lot bounce back out into space, and on their way out sometimes they get stuck. That's because they bump into tiny little particles floating in the atmosphere called greenhouse gases, including carbon dioxide, methane and nitrous oxide.

It's normal for greenhouse gases to be in the atmosphere doing that - they're a natural part of the earth's climate system. In fact without them, our planet's average temperature would drop to minus 18 degrees, meaning all the water on Earth would freeze over.

So in many ways, greenhouse gases are great. You can think of them as being like blankets on a cold night: they trap more heat in to keep us warm. But what happens if we put on too many? Things start to get hot.

The same thing could happen with our planet.

Unfortunately our main energy sources, like coal and petrol, release extra greenhouse gases into the atmosphere. So by generating energy like that, it's kind of like we're putting more blankets on the planet. In fact scientists say, thanks mostly to humans, greenhouse gases have risen to their highest level in 800-thousand years.

That could cause some big problems.

Climate scientists say it'll warm up the planet, which will melt ice, causing sea levels to rise. That will threaten people living close to the water, and some animals will suffer too. More greenhouse gases could also cause our intricately balanced climate to change, meaning more extreme weather in the future.

Scientists say if we don't start to bring greenhouse gases down to natural levels, the damage will be severe and irreversible. So they're calling on the world's governments to find ways to reduce gas emissions.

Compared to levels in the year 2000, the Australian government is trying to cut greenhouse gases by 5% within 6 years. That's going to be pretty hard, so they'll be giving big businesses money to try to invent new ways to tackle the problem, and they're building a 'green army' of young people to plant more trees because trees actually drink in one of the gases, carbon dioxide.

But everyone needs to chip in and that's not just other countries, it's also you and me.

KELLY MACKENZIE, AUSTRALIAN YOUTH CLIMATE COALITION: The Australia Youth Climate Coalition's top tips for reducing your greenhouse gas emissions are: 1) to ride your bike to school, 2) to buy less stuff, and 3) talk to your parents about climate change.

Given scientists want us to completely stop using energy sources like coal and petrol by the year 2100, it might be time to get a roll on.

Quiz 1

Let's stay with greenhouse gasses now for our first quiz.

The question is:

How many tonnes of greenhouse gases were released in Australia last year?

538 thousand tonnes

538 million tonnes

Or 538 trillion tonnes

Answer: 538 million tonnes

That sounds like a lot but it was actually down 0.8 of a percent on the year before.

War Nurses

Reporter: Matt Holbrook

INTRO: Now, the 11th of November is Remembrance Day. And at 11am all Australians are encouraged to stop and think about those who've served this country during times of war. Most people picture male soldiers during this time. But there were also thousands of women who put themselves in harm's way to serve. One class recently decided to find out more about one of them- a nurse called Olive from World War I. Here's Matt with the story.

KID: I suppose you'll know before this how splendidly they fought. But it is terrible to think of all who haven't come back. The 9th and 11th have just about been wiped out. Everyone is asking about the ones they know, it must have been terrible.

This is part of a letter written by an Australian nurse during World War One. Her name was Olive Haynes. She was one of around 3000 women who served with the Australian Army Nursing Service.

KIDS: Olive Haynes. She was raised up in Adelaide. She used to work near here. She trained up to be a nurse in the Royal Adelaide. And then she was 26 in 1914.

At the time women weren't allowed to fight. But many wanted to help in any way they could.

KIDS: Whenever the women asked for a job the government would just reject them. War nurses was probably the only thing they could do to help the war effort.

So that was exactly what Olive did. Nurses like Olive, and other medical workers, travelled all over to help treat the sick and wounded.

KID 2: We were awfully surprised when they all began to come back, and could scarcely believe it. But we had to evacuate too, to be ready for a big rush of wounded.

Conditions were tough, and they didn't always have the supplies and equipment they needed. Olive went on to France in 1916, where most of the fighting in the first World War took place. Even though nurses didn't have to fight, they still faced a lot of risks.

KID 3: You see, I know a bit about what they have to go through up there, and we see so many go out and never come back.

They were close to the battlefield, and some died from injuries or disease.

Back home, women also took over some of the jobs left by men. There were organisations which took part in fundraising, recruiting and organising care packages for soldiers serving overseas.

KIDS: The women didn't get much choice as to what job to do. If I was a woman back then I would probably be a war nurse because I would want to serve my country.

In 1917, Olive got married to a soldier, but she was finally allowed to come home in 1918.

KID 4: Isn't it lovely to think we could be home at any time now? I will telegraph from the first point of call in Aussie, as we might come through the Panama, and not call at the west, but go to Sydney, Melbourne, and Adelaide. Best love to you all, from your loving daughter, Olive.

World War One ended on November 11, 1918, the day we now know as Remembrance Day. But after the war ended, women often weren't recognised for their efforts in the same way returned soldiers were.

Over time, that's starting to change, and stories like Olive's are now passed on to a new generation of Australians.

Rosetta Mission

Reporter: Matt Holbrook

INTRO: Now. Scientists are in the final stages of an attempt to land a probe on the surface of a comet which happens to be travelling through space at nearly 40,000 kilometres per hour. They say it's like trying to land on a speeding bullet which is why the

mission's been described as one of the most difficult ever. But what are researchers hoping to achieve once there? Matt found out.

After travelling six billion kilometres, past Earth, Mars and two asteroids, it's time for a world first: A selfie with a comet. This is the Rosetta spacecraft, and when it's not taking selfies, scientists from the European Space Agency launched it so they could learn more about comets.

But it's taken ten years to catch up with this one. Now it's close and Rosetta's about to send down a robotic lander onto its surface to find out more. Scientists around the world are really excited. But why all the fuss over a comet?

Well, people on earth have always been pretty interested and sometimes even afraid of comets. But today scientists reckon they could hold some really important clues about how we got here. Comets are made up of dirt, rock and ice, they spend most of their time in the coldest, darkest parts of the solar system, and scientists think studying them might help explain life on earth.

MATT HOLBROOK, REPORTER: About seventy per cent of earth is covered by water, but scientists still don't know exactly how it all got here. One possibility is that it actually came here in comets. So studying one close up could tell them for sure.

Rosetta's already collected heaps of data on the journey. And apart from snapping interesting pictures as it orbits the comet, the craft's sensors have worked out what a comet would smell like on earth if you could ever get close enough. Rotten egg, alcohol, bitter almonds, vinegar and horse wee. Yeah, let's hope we never actually have to smell it.

But landing a probe on the surface is the next step, and it's a biggie. Comets are small and have almost no gravity to guide the lander in, and because it's so far away mission controllers can't send it real-time instructions, so it's a tough job.

WARWICK HOLMES, AVIONICS ENGINEER: It will go down to the surface of the comet from about one kilometre above the comet, then we have two harpoons which will fire into the comet to try to hold on. We have three ice screws on the feet of the lander which will screw into the ice and we also have a little thruster which will hold the lander onto the comet.

But if everything goes to plan, we could get some amazing information, which will hopefully uncover some secrets of our solar system.

Quiz 2

Quiz number 2 now. Let's get into it.

Comets and asteroids sound similar but they're actually different.

The question is, why?

Is it because -

Comets weigh more

Comets come from a different solar system

Comets have tails

Answer: Comets have tails

If you see a comet in the sky it will have a tail behind it which is ice from the comet vaporising as it travels through space. Okay, Sport time now. Here's some of the best moments from the past week.

The Score

New Zealand has beaten Australia to hold onto the Fast Five World Series title.

If you haven't seen it before, Fast five is an exciting version of netball with shorter quarters, fewer players and two and three point shots.

Each side also has a double-points quarter which nearly helped the Aussies over the line in the final.

But a goal from the N-Z Ferns just before the buzzer sealed the title.

The Aussies have won their Twenty-20 series against South Africa 2-1

In the decider Australia was chasing 145 and reached the target with just two balls to spare.

This 11-year old from Victoria could be the next Tiger Woods!

Nathan Page recently shot a 70 which is two less than 'par' or the recommended score for the course.

And still on golf

And a man from Texas has broken a world record for using the world's longest golf club!

Michael Furrh managed to hit a golf ball using this super long club.

It measures 6-point-2-5 metres.

Fairy Business

Reporter: Natasha Thiele

INTRO: Finally today, starting a successful business sounds pretty tough. You probably think you have to be an adult to do it. But you're about to meet a 14-year old girl who's not only had a business for years but it's become so successful, she's even written a book about it. Here's Samara to explain how she got into the fairy business.

SAMARA: My name is Samara Welbourne and my passion is making fairy houses. I've been making them for about three years now and it all started with when I wanted to help the Sippy Creek Animal Refuge raise money so they could keep their animals alive. So I decided that I would make fairy houses and sell them at my school to raise money and I did that with my friends and we ended up raising over \$400 for them.

By now I've probably made I don't know about 2,000. Most of them are sitting in the cupboards in my house, falling out of the cupboards every time I open the cupboard door or like and little display cabinets around the house, things like that. I've now turned it into a business called Enchanted Fairy Houses! I've hosted workshops on how to make them, held little parties for kids and I've even published my own book!

Lots of people were asking me, 'Oh how do you make these fairy houses? Can we take photos?' And so eventually my Mum just said to me, "Well if so many people want to know how to make this, why don't you just put it all into a book?" and that's what I did. It actually turns out that it was the only book in the world that teaches kids how to make fairy houses. I also like to give back to my community a lot too. In my school holidays I do free fairy house workshops, teaching kids how to make fairy houses at libraries and I also give 10% of my royalties to the Children's Hospital Foundations Australia.

At the moment, I'm living in Bali in Indonesia with my parents. We'll be living here for two years, while my Mum volunteers for a local organisation. So in my spare time, I've been teaching kids how to make fairy homes. For many of the kids, it's the first time they've ever made something like this before.

If starting your own business is something you'd like to do, here are my tips. So number one, you have to have good unique idea that people will like. Number two is that people have to know about your business and the way I used to do this was write newspaper stories and send them to the newspaper and they would put them in the newspaper for free, so that would be a good way for me to market my business. And number three is that you have to know how much your business is actually making and to do this, you have to

take the material costs and take them away from how much you actually made from selling your items and this is called doing a profit and loss sheet.

When I'm back in Australia, I'd like to start a Fairy House Festival. People could get dressed up as fairies and make fairy houses in the botanical gardens. If you have a dream don't give up on it. If it's not working out just keep going and you'll get there eventually. Having my own business is pretty cool and I'm proud of what I've achieved.

Closer

Thanks Samara. And that wraps us up for today! Now if you use BtN in class, we'd love to see what activities you're doing on this week's episode. So send us a pic using the hashtag 'behindthenews'. And while you're online please remember to vote in our poll about G20. Thanks for watching. See you next week.