

Sustainability: Junior Primary English, Years 3 & 4

Taking care of Earth together

This unit of work, *Taking care of Earth together*, allows students to explore pressing issues that relate to our shared responsibility to care for the environment for future generations, using the picture book *The Tomorrow Book* by Jackie French and illustrated by Sue de Gennaro. Other texts used include a play and a poem relating to the theme of sustainability.

The unit is concerned with the values of responsibility and understanding: that by seeking to understand each other and the natural world we are closer to becoming global citizens. Issues are addressed by having students complete activities cooperatively in small groups.

Focus

This unit provides opportunities to explore the ideas that:

- it is essential to recycle and reuse in order to sustain the Earth's resources.
- global warming is impacting negatively on our world
- we share a responsibility to work together to make our world a better place
- communication is the key to racial harmony and increased understanding
- we are all different but in many ways we are all the same
- we need to work together to reduce our impact on the environment
- we are global citizens and, as such, we need to understand each other's cultures.

Australian Curriculum: English

The general capabilities emphasised in this unit of work are literacy, information and communication technology (ICT) capability, critical and creative thinking, ethical behaviour and intercultural understanding. This unit addresses the cross-curriculum priority Sustainability.

The Australian Curriculum: English is built around the three interrelated strands of Language, Literature and Literacy. This unit of work is based on the premise that literacy knowledge underpins the success of all learning areas across the curriculum. The unit integrates English outcomes with ICT, Science and Studies of Society and Environment.

Content

Students will be provided opportunities through the activities to engage with aspects of the following content descriptions.

<p>Language Language for interaction</p>	<p>Understand that social interactions influence the way people engage with ideas and respond to others, for example when exploring and clarifying the ideas of others, summarising students' own views and reporting them to a larger group (ACELA1488)</p>
<p>Expressing and developing ideas</p>	<p>Explore the effect of choices when framing an image, placement of elements in the image, and salience on composition of still and moving images in a range of types of texts (ACELA1496)</p>
<p>Literature Responding to literature</p>	<p>Discuss literary experiences with others, sharing responses and expressing a point of view (ACELT1603)</p>

Examining literature	Understand, interpret and experiment with a range of devices and deliberate word play in poetry and other literary texts, for example nonsense words, spoonerisms, neologisms and puns (ACELT1606)
Creating literature	Create literary texts that explore students' own experiences and imagining (ACELT1607)
Literacy Interacting with others	Interpret ideas and information in spoken texts and listen for key points in order to carry out tasks and use information to share and extend ideas and information (ACELY1687) Plan, rehearse and deliver presentations incorporating learned content and taking into account the particular purposes and audiences (ACELY1689)
Interpreting, analysing, evaluating	Read different types of texts by combining contextual, semantic, grammatical and phonic knowledge using text processing strategies, for example monitoring meaning, cross checking and reviewing (ACELY1691)
Critical thinking	Use comprehension strategies to build literal and inferred meaning to expand content knowledge, integrating and linking ideas and analysing and evaluating texts (ACELY1692)
Creating texts	Plan, draft and publish imaginative, informative and persuasive texts containing key information and supporting details for a widening range of audiences, demonstrating increasing control over text structures and language features (ACELY1694) Use a range of software including word processing programs to construct, edit and publish written text, and select, edit and place visual, print and audio elements (ACELY1697)

NSW K–6 English Syllabus links

Syllabus outcomes	Syllabus indicators
TS2.2 Interacts effectively in groups and pairs, adopting a range of roles, uses a variety of media and uses listening strategies for different situations	<ul style="list-style-type: none"> • Participates in group and class discussions • Identifies specific information in a text • Conducts an interview for a specific purpose • Performs a poem, giving consideration to use of voice and gesture
RS2.7 Discusses how writers relate to their readers in different ways, how they create a variety of worlds through language and how they use language to achieve a wide range of purposes	<ul style="list-style-type: none"> • Understands the purpose of a text • Gathers information from written and visual text • Analyses visual text • Discusses ways different ideas are represented in text • Identifies a writer’s viewpoint • Recognises how different literary texts are constructed, for example a poem
WS2.9 Drafts, revises, proofreads and publishes well-structured texts that are more demanding in terms of topic, audience and written language features	<ul style="list-style-type: none"> • Uses writing to convey ideas and to sort information • Selects relevant information to include in own writing • Uses diagrams and tables to present information • Constructs a poem to respond to ideas

Teaching & learning activities

1. Introduce the unit with a recycling/re-use activity

Reading *The Tomorrow Book*¹ by Jackie French and illustrated by Sue de Gennaro can introduce the unit to the class. The book addresses the theme of sustainability, emphasising that we need to work together as global citizens in order to save our world. The book focuses on our influence on the environment and how we can work together to reduce our impact, with the aim of living in harmony with our surroundings and each other, to sustain our world for future generations to enjoy. It tells the reader how together we can save our world by reducing, reusing and recycling. Items in the book have been reused and recycled in wonderfully creative ways by children.

Build on the general introduction in a first activity. Revise the text of *The Tomorrow Book* and discuss the illustrations. Have students identify items that have been made from recycled materials and list them on the chart below. Locate items in the text illustrations. List their original use, and note down how they have been reused and recycled to create a more sustainable world. Consult with your group to categorise items by colour-coding similar items in the table.

My name is	Date
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Item	Original use	Recycled use
For example: <i>books</i>	<i>Reading</i>	<i>Ladder, building blocks</i>

Fill in the self-evaluation:

<input type="checkbox"/> Incomplete	<input type="checkbox"/> Could have done better	<input type="checkbox"/> Did OK	<input type="checkbox"/> Did our best
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¹ Harper Collins information on *The Tomorrow Book*: <http://browseinside.harpercollins.com.au/index.aspx?isbn13=9780732289393>.

Millennium Development Goals

In 2000, the nations of the world came together through the United Nations and agreed on eight goals to halve extreme poverty by 2015. These goals are called the Millennium Development Goals and they are an example of how countries are seeking to work together and cooperate to make a better world for all.

Read the play *Millennium Development Goals — A football drama*, reproduced below.

In small groups, read through the play and discuss the following questions:

- **Who are the teams?**
- **Who are the players that need to be tackled and stopped?**
- **What are some strategies that Humanity can use to do this?**
- **Who are the players who need to be supported and helped?**
- **What is happening to ‘the environment’?**
- **What are some strategies that Humanity can use to achieve this? What is one thing that you and your school could do to help?**
- **The drama suggests that life is like a football game. What are some of the language features or idioms that you would expect to hear on a football show? (For example, ‘The game has been tough’ ... ‘on top at the moment’ ... ‘ need to tackle poverty and hunger aggressively’ ... ‘too much space to move ... ’)**

Create a performance of the play to share as an assembly item.

Millennium Development Goals — A football drama

Setting / Scene: TV Panel show with host and guests seated at desks in a semi-circle.

Characters (6): Host, Steve, Clare, Ruth, Dmitri, James.

Host: Welcome back to half-time on the Footy Show. The game between Humanity and Injustice has been tough. Injustice is clearly on top at the moment. Steve, what does Humanity need to do to get back into this game?

Steve: Well clearly, Humanity needs to score eight goals in this second half to have any hope of getting on top of Injustice. Firstly, they need to tackle poverty and hunger more aggressively. **Poverty and hunger** have

been very powerful players for Injustice. Humanity needs to tackle them hard and go after them much more than they have been doing. They have simply been given too much space to move and they're dominating the game at the moment. There are nearly one billion people experiencing hunger every day!

Clare: Yes Steve. I think you're right ... and in terms of attack, I think Humanity needs to get the ball out to **Education**. He is a key player for Humanity and can score some of these goals if he can be encouraged and given more ball. He is always a very positive influence on the game when he's involved. He needs to make a bigger contribution.

James: To be honest, I think Humanity also needs to promote more **girls and women** into the top team. The team needs better balance – a better mix. They need to promote the girls, give them the ball and let them run with it. They could make a dangerous partnership with **Education**. Too many girls are missing out.

Host: It seems to me that Injustice is having a field day at the moment. They have a lot of dangerous players. Ruth, who else does Humanity need to stop in the second half?

Ruth: Well, they have to stop the influence of **Child mortality** and **Diseases** like **HIV/AIDS**, **Malaria** and **Tuberculosis**. These players are very dangerous and they're having a big impact on the game. They're hurting Humanity. They are stopping Humanity scoring goals and are really having a devastating impact. Their influence needs to be halted.

Dmitri: Yes, and I think Humanity can do more with **Maternal health** too. She is going to be essential in scoring some of these goals and in stopping child mortality.

Ruth: Yes, I agree. **Maternal health** needs a lot more support. She is an important player in tackling **Poverty and hunger** too. If Humanity can look after its women and mothers, it would be a lot stronger.

Host: Well, news from the dressing sheds is that the **Environment** has been badly injured in the first half. He has been carrying injuries for some time now. Clare, that must be a great blow to **Humanity**?

Clare: Yes. Absolutely! Humanity needs to protect him better from some of the heavy hits he's been receiving. They need to support him more positively if they are going to fight back and score the goals they need to overcome the opposition. Climate change is a real threat that needs

to be tackled hard and taken out of play. **Education** is starting to limit the influence of climate change, and this will have to continue in the second half.

Steve: Look, there is no doubt they need to look after the environment. But to do that, they also need to work more as a team. They need to support their partners and not go it alone. They've made some good progress on **cutting debt** but they need to increase their **aid** and make it more effective. Some countries are pulling their weight but some other countries just don't show enough commitment and enthusiasm. They need to play fair with **trade** too. The whole team needs to work together.

Host: Well this is a very important game – some would say a crucial game. The second half promises to be a mighty battle that will be hard fought. Stay tuned as Humanity tackles Injustice in today's Match of the Day!

Source: World Vision (2009) *Get Connected* — Issue 6, Pages 12-13.

2. What is global warming and how might global citizenship help our world?

View the [Hunger to Harvest²](#) slideshow (.ppt 225 kB) and read the text 'Climate change' below.

Climate change

The issue: Greenhouse gases, such as carbon dioxide (CO₂), are increasing in the atmosphere and this is changing the Earth's climate. The main cause for the increase is the burning of fossil fuels (oil, coal and natural gas) and the cutting down of trees that convert carbon dioxide into oxygen. If this continues, it is predicted that:

- ice sheets and glaciers will melt and cause sea levels to rise and threaten low-lying areas of land in the Pacific and Indian Oceans
- storms and cyclones will increase in number and intensity
- biodiversity will be lost in places like Kakadu and the Great Barrier Reef
- access to food and water will be reduced — especially in poorer countries
- war and conflict will increase as people compete for resources.

² The Hunger to Harvest PowerPoint file can be downloaded from World Vision at:
http://www.worldvision.com.au/Libraries/3_1_1_Issues_-_Food/Hunger_to_Harvest_slideshow.sflb.ashx?download=true.

A global citizenship response: Australians help to support World Vision's projects that promote sustainable practices and care for the environment in developing countries. These include:



1. Planting forest trees and fruit trees in Mongolia.



2. Training communities in sustainable farming techniques in Zambia. Improved soil quality increases crop yields so families have enough to eat.



3. Training in alternative farming options and introducing drought tolerant crops in Ethiopia to reduce dependence on rainfall.



4. Re-vegetation in Ethiopia to restore farmlands and regenerate forests.



5. Creating clean and sustainable fuel options in Tanzania, like energy-saving cooking stoves and solar cookers.

Source: Adapted from World Vision (2009) *Get Connected* — Issue 6, Page 18

Discuss the effects of global warming on rich and poor nations based on the issues raised in the slideshow and text. What are some of the practical steps that communities are taking to address the problems of climate change?

Global citizenship

As a class, draw a table with three columns, with the headings federal government, state government and local government. Under the appropriate heading, list one example of an issue or problem in the community that might need attention.

Have students interview an adult (a teachers' aid or a parent or carer) to learn about how different levels of government are responsible for different things in Australia, and to record responses in their own words.

Students then complete the following activity.

Global citizenship

An Australian citizen understands that they can influence what happens in Australia by communicating with their elected representatives in **local** government, **state** government and **federal** government. Which level of government would you contact if you wanted to achieve the following?

1. Improve the garbage collection and recycling in your suburb:

2. Increase the amount of aid money for developing countries:

3. Improve the school playground:

4. Increase the number of refugees accepted into Australia:

5. Increase the number of trees planted in a local park:

6. Improve the bus and train services:

Source: World Vision (2009) *Get Connected* — Issue 6, Page 16

Have students write a brief explanation of the cartoon *A Greenhouse Nightmare*³ by Nicholson.

To help model their explanation of the cartoon, have students first list the possessions shown in both households, and then discuss the following questions as a class.

- **Why is the cartoon called ‘A Greenhouse Nightmare’?**
- **How does the cartoonist show people living in wealthy, developed countries and those living in poor, developing countries?**
- **What does the cartoon say about global citizenship? What is the main message?**
- **How can the decisions of one household or nation have an impact on the lives of people in another nation?**

3. Why is the Earth crying?

Read and discuss the poem ‘*The Earth is crying*’⁴ by Maria Boland. Have the students practise reading the poem together, to become more fluent.

Students then form groups for guided **choral reading**⁵ for an audience, where they show their comprehension through a readers’ theatre/performance, such as to Year 5/6 students, with groups reading with expression and explaining why they chose to read in the way they did.

Help students to recognise that the poem represents a very negative view of the environment. It is important to remind students that people around the world are actively taking steps to care for the environment.

Have students plan an artwork in the form of a two-dimensional picture from recycled paper, and using the text illustrations in *The Tomorrow Book* as a guide, to show how we can help conserve the Earth’s resources by recycling and reusing resources.

Reducing human impact

Encourage students to think about how we can help conserve the Earth’s resources — at home and in the classroom and school — by first considering the following cartoon.

³ The cartoon in the archives of Nicholson’s website: <http://nicholsoncartoons.com.au/1997/12>.

⁴ Link to Blog site with Maria Boland Poem: <http://www.mnn.com/local-reports/pennsylvania/local-blog/a-poem-the-earth-is-crying>.

⁵ Reading strategies website, choral reading: http://www.readingrockets.org/strategies/choral_reading/.



Source: World Vision Australia (2010) *Get Connected* Issue 7 – Climate Change

Have the class draw up a mind map together (such as the one below), listing ways in which greenhouse gas emissions might be reduced around the home or at school by using energy more wisely. To help guide students about what they can do at home, use resources such as those for simple energy saving actions⁶ and the energy efficient house⁷.



Source: Adapted from World Vision Australia (2010) *Get Connected* Issue 7 — Climate Change

⁶ Victorian Department of Primary Industries Energy site: <http://www.dpi.vic.gov.au/energy/environment-and-community/energy-efficiency>.

⁷ As above, with an energy-efficient house interactive: <http://www.dpi.vic.gov.au/energy/environment-and-community/energy-efficiency/energy-efficient-house>.

With reference to the energy efficient house, have students complete an assessment task as a group.

List the ways you can cut down greenhouse gas in the home. Complete the table below in your group.

Our group is	Date
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Household item	Energy efficient model

How well did your group complete this activity?

<input type="checkbox"/> Little cooperation	<input type="checkbox"/> Some cooperation	<input type="checkbox"/> Group worked well	<input type="checkbox"/> Great cooperation and results
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Have students work in pairs, using a [jargon buster](#)⁸ or glossary to plan and produce a [wonderword](#)⁹ puzzle, using unfamiliar terms and discussing those unfamiliar terms and their meanings. Have students then swap the puzzles among pairs to be completed.

As an extension activity, have students watch the energy video [Current Affairs](#)¹⁰, or read the scrolling [comic of the story](#)¹¹ Adventures of Energy Man and Energy Boy.

4. Caring for our Earth and its inhabitants

As a class, view the set of World Vision [posters](#)¹² and discuss what the posters are telling the viewer about the culture of the people in the pictures.

Watch the video [A day in the life of Lucy](#)¹³ and have small groups of students discuss what they have seen in this recount of Lucy's day.



As an individual task, have students then complete a comparison (below) about 'sharing'. Students write two or three answers to each question. They might need to re-watch the video.

⁸ Jargon Buster for energy efficiency terms: <http://www.dpi.vic.gov.au/energy/education-and-training/jargon-buster>.

⁹ Wikipedia entry for wonderword: <http://en.wikipedia.org/wiki/Wonderword>.

¹⁰ Victorian Department of Primary Industries site 'Cleaner Energy, Brighter Future', kid's corner video: <http://www.dpi.vic.gov.au/energy/education-and-training/kids-corner>.

¹¹ Victorian Department of Primary Industries site 'Cleaner Energy, Brighter Future', kid's corner comic: <http://www.dpi.vic.gov.au/energy/education-and-training/kids-corner/adventures-of-energy-man-and-energy-boy>.

¹² World Vision Australia Schools Resources, Posters: <http://www.worldvision.com.au/learn/SchoolResources/posters.aspx>.

¹³ World Vision Australia video on the Smiles Day 2011 resources page: <http://www.worldvision.com.au/learn/schoolresources/SmilesDayResources.aspx>.

Comparisons table

	Me and my family and community	Lucy and her family and community
Who do you/Lucy share with?		
What do you/Lucy share?		
When do you/Lucy share?		
How does sharing help your/Lucy's life?		
What could your class share with Lucy and her family and community?		

Students discuss their responses. As a class, discuss the last question in some detail and consider how the 'sharing' with Lucy could be done successfully and who would be needed to assist the class.

Select any one brief scene or event in the video to show the class; for example, getting water from the bore. As a class, list information gained from:

- **the spoken commentary mode, and**
- **from the visual images mode.**

With the class, jointly construct a short retell of the scene/event that combines the information from both the commentary and the images. When finished, comment on the contribution the different modes make to the whole event.

Revisiting the same scene/event, ask the students to imagine they were the camera operator. Notice how close or distant the camera was when the scene was filmed. What did you, as the operator, decide to focus on as the most important (or salient) part of the scene? Why did you make this decision?

Possible extensions

Select a different scene and ask students to complete similar lists of information from the spoken and visual modes. In pairs, they use the lists to write a retell combining the information from the different modes. They could also comment on the salient parts of this scene.

Background information for students — A day in the life of Lucy

In the video it is mentioned that Doreen's husband died from tuberculosis. Tuberculosis, or TB, is an infection of the lungs caused by a specific germ. It is a very serious, but treatable, illness and a vaccine does exist. If the tuberculosis infection becomes 'active', treatment takes between six months and two years, and relies on taking prescribed medicine regularly.

TB causes a very bad cough, including coughing up blood, also fever and chest pain. It is rare in countries like Australia, where good food and clean water are readily available and people have an easily accessible health care system, including a reliable supply of medicines.

The World Health Organization (WHO) estimates that one-third of the world's population is currently infected with the TB bacillus, and that about 5 to 10 per cent of these people will become sick. In 2009, an estimated 1.7 million people died from TB. Most of these people lived in Africa.

Some common foods in Uganda, that Lucy and her family are likely to eat, include:

- *ugali*, a porridge-like dish made from either maize (corn) or millet
- *matoke*, a special type of green banana that is boiled and mashed
- stews, often made from groundnuts (peanuts), beans or other greens (occasionally a little meat is used)
- *simsim* paste, made out of roasted sesame, which can be mixed into stews or with groundnuts.

The Earth's inhabitants

Introduce the idea that people are not the only inhabitants of Earth affected by climate change. Watch the photo-story '[Polar bears and the Arctic](#)'¹⁴ and brainstorm the key question 'How does

¹⁴ Climate Classroom Channel on YouTube: <http://www.youtube.com/climateclassroom>.

climate change affect the Arctic region and polar bears specifically?’

Global citizenship in action

Have students visit the NASA [Climate Time Machine](#)¹⁵ to go backward and forward in time to see how Earth changes. Think about Earth’s past and possible futures, and about green careers that help the planet.

Have students create a poster or [digital presentation](#)¹⁶ to inform and persuade younger students (K–2) to take care of their local environment.

For the teacher

Find primary-age resources for [sustainability](#)¹⁷, including more [school resources](#)¹⁸ from World Vision. Find [teachers notes](#)¹⁹ (.pdf 250 kB) and [notes with worksheets and activities](#)²⁰ (.pdf 262 kB) for *The Tomorrow Book*, including notes on inventions. Explore the art and books of [David Higgins](#)²¹ for this theme.

The [Australian Sustainable Schools Initiative](#)²² website is an excellent source of background information. Each state and territory has its own website in addition to the national site. Schools can join the initiative. Refer to the [Sustainability Curriculum Framework – A guide for curriculum developers and policy makers](#)²³ for how education for sustainability may be incorporated into curriculum from Kindergarten to Year 10.

¹⁵ NASA Climate Change Machine: http://climate.nasa.gov/kids/ClimateTimeMachine/climateTimeMachine_kids.cfm.

¹⁶ Sites2See: Digital storytelling in the early years:

<http://lrrpublic.cli.det.nsw.edu.au/lrrsecure/cli/download.aspx?resID=7398&v=1&preview=true>.

¹⁷ Sites2See: Aim to sustain, resources on sustainability:

<http://lrrpublic.cli.det.nsw.edu.au/lrrsecure/cli/download.aspx?resID=12489&v=1&preview=true&target=PUBLIC>.

¹⁸ World Vision Australia Schools resources: <http://www.worldvision.com.au/learn/SchoolResources.asp>.

¹⁹ Teacher notes for *The Tomorrow Book* from the publisher HarperCollins:

http://www.harpercollins.com/harperimages/ommoveerride/tomorrow_book_teacher_notes.pdf.

²⁰ More teacher notes from the publisher HarperCollins:

²¹ David Higgins website: <http://www.altobooks.com.au/david-higgins>.

²² As above: <http://www.environment.gov.au/education/aussi/>.

²³ Sustainability Curriculum Framework: <http://www.environment.gov.au/education/publications/curriculum-framework.html>.