

Sustainability: Upper Primary English, Year 6

Global footprints

This unit of work, *Global footprints*, explores the concepts of sustainable futures, global or ecological footprints and personal and social responsibility.

Narrative texts used are the children's picture book *The Short and Incredibly Happy Life of Riley*, written by Colin Thompson and illustrated by Amy Lissiat; a factual text and video in 'Ida's story', the story of a mother of seven children living in Burundi; and the short novel *Blueback: A fable for all ages* by Tim Winton.

Focus

This unit provides opportunities to explore the ideas that:

- cooperative and collaborative processes support sustainability at all levels
- reducing our global footprint is the responsibility of all
- individuals can and do make a difference.

Australian Curriculum: English

The general capabilities emphasised in the unit of work, *Global footprints* are literacy, information and communication technology (ICT) capability, personal and social capability 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. This unit of work has an emphasis on creative work and the strands of Language and Literature.

Content

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

Language Text structure and organisation	Understand how authors often innovate on text structures and play with language features to achieve particular aesthetic, humorous and persuasive purposes and effects (ACELA1518)
Language for interaction	Understand the uses of objective and subjective language and bias (ACELA1517)
Expressing and developing ideas	Identify and explain how analytical images like figures, tables, diagrams, maps and graphs contribute to our understanding of verbal information in factual and persuasive texts (ACELA1524) Investigate how vocabulary choices, including evaluative language can express shades of meaning, feeling and opinion (ACELA1525)

Literature Literature and context	Make connections between students' own experiences and those of characters and events represented in texts drawn from different historical, social and cultural contexts (ACELT1613)
Responding to literature	Identify and explain how choices in language, for example modality, emphasis, repetition and metaphor, influence personal response to different texts (ACELT1615)
Examining literature	Identify the relationship between words, sounds, imagery and language patterns in narratives and poetry such as ballads, limericks and free verse (ACELT1617)
Creating literature	Experiment with text structures and language features and their effects in creating literary texts, for example using imagery, sentence variation, metaphor and word choice (ACELT1800)
Literacy Texts in context	Compare texts, including media texts that represent ideas and events in different ways, explaining the effects of the different approaches (ACELY1708)
Interacting with others	<p>Participate in and contribute to discussions, clarifying and interrogating ideas, developing and supporting arguments, sharing and evaluating information, experiences and opinions (ACELY1709)</p> <p>Plan, rehearse and deliver presentations, selecting and sequencing appropriate content and multimodal elements for defined audiences and purposes, making appropriate choices for modality and emphasis (ACELY1710)</p>

Interpreting, analysing and evaluating	<p>Use comprehension strategies to interpret and analyse information and ideas, comparing content from a variety of textual sources including media and digital texts (ACELY1713)</p> <p>Analyse strategies authors use to influence readers (ACELY1801)</p>
Creating texts	<p>Plan, draft and publish imaginative, informative and persuasive texts, choosing and experimenting with text structures, language features, images and digital resources appropriate to purpose and audience (ACELY1714)</p> <p>Use a range of software, including word processing programs, learning new functions as required to create texts (ACELY1717)</p>

NSW K–6 English Syllabus

Syllabus outcomes	Syllabus indicators
TS3.1 Communicates effectively for a range of purposes with a variety of audiences to express well-developed, well-organised ideas with more challenging topics	<ul style="list-style-type: none"> Engages in discussions involving more than one point of view about characters, events, ideas and themes in literary text Gives considered reasons for opinions and listens to those of others Plans and delivers presentations for specific purpose and audience
RS3.5 Reads independently an extensive range of texts with increasing content demands and responds to themes and issues	<ul style="list-style-type: none"> Reads extended novels for personal enjoyment, interest and research Interprets more complex maps and diagrams Identifies and interprets ideas, themes and issues in

Syllabus outcomes	Syllabus indicators
	literary texts <ul style="list-style-type: none"> • Gathers and interprets information from a range of print and digital texts, makes inferences and generalisations and draws conclusions • Compares print and visual information in a text
RS3.6 Uses a comprehensive range of skills and strategies appropriate to the type of text being read	<ul style="list-style-type: none"> • Uses a range of types of texts, including media texts, to gather and record information
WS3.7 Critically analyses techniques used by writers to create certain effects, to use language creatively, to position the reader in various ways and to construct different interpretations of experience	<ul style="list-style-type: none"> • Explains how a text's structure is related to its purpose • Recognises how language features such as imagery contribute to a text's meaning • Identifies how meanings are constructed in images through size, colour, shading and viewer position • Justifies opinions about interpretation of a text and images • Considers author's and illustrator's point of view
WS3.9 Produces a wide range of well-structured and well-presented literary and factual texts for a wide variety of purposes and audiences, using increasingly challenging topics, ideas, issues and written language features	<ul style="list-style-type: none"> • Writes descriptions based on viewed information • Jointly constructs persuasive texts • Creates texts using a range of media

Teaching & learning activities

1. Introduce the unit with ideas for collaborative learning

Cooperative and collaborative learning processes provide a model for students to use when considering action on issues important to them.

Throughout the unit, students will be required to work with four collaboratively developed retrieval devices. Explain and discuss the use of these devices.

- **A map of the world.** Students may maintain a map individually as well as the class map on display.
- **A labelled continuum onto which notes will be attached.**
- **Popplets¹** — popplets are web based collaborative mind maps. Students could create mind maps on paper if suitable technology isn't available.
- **A class wiki²** — wikis are simple web pages that students and teachers can edit together. Students could use chart paper and sticky notes if suitable technology isn't available.

Provide students with the following definitions for sustainable futures and ecological footprint:

Sustainable futures is an understanding of the ways in which we can meet our current needs without diminishing the quality of the environment or reducing the capacity of future generations to meet their own needs.

See *Global Perspectives: A framework for global education in Australian schools*, page 5 (.pdf 2.3 MB)³

Ecological footprint is a measure of the consumption of renewable natural resources by a human population. A population's ecological footprint is the total area of productive land or sea needed to produce all the crops, meat,

¹ Learn about Popplets: <http://popplet.com/>.

² Learn about using wikis in plain English: <http://www.youtube.com/watch?v=-dnL00TdmLY>.

³ Global Perspectives document:
http://www.globaleducation.edna.edu.au/globaled/go/engineName/filemanager/pid/122/GPS_ForWeb_150dpi.pdf?actionreq=actionFileDownload&fid=24877, page 5.

seafood, wood and fibre it consumes, to meet its energy consumption, to give space for its infrastructure and to absorb its wastes. The ecological footprint can be compared with the biologically productive capacity of the available land and sea to see if the population is sustainable in the long term. The measure can be applied to an individual, a family, a school, a community, a country or the whole world.⁴

In this unit, the terms global footprint and ecological footprint are used interchangeably.

2. Using the world's resources

The teacher reads aloud *The Short and Incredibly Happy Life of Riley* by Colin Thompson. Form a circle and encourage students to ask questions about the text. Discuss each question in turn, using techniques noted in Philip Cam's book *Thinking Together: Philosophical inquiry for the classroom*.⁵

- **What do you notice about the illustrations? How realistic are they? What colours does Thompson use?**
- **How is the language different from a typical narrative picture book? Ask for examples. Why did the author use this unusual type of language (for example, the hyphenated words)?**

Then discuss the following questions:

- **Does everyone really want to live forever?**
- **Who is everyone?**
- **Who are the people referred to in the book?**
- **Why does the author separate lists of words with hyphens?**
- **Why are the rats pink?**
- **The framed paintings are all very famous ones in European art that have been modified by the authors. Which parts do you think the author has added to the originals? [Original images could be accessed online for comparisons.]**
- **What is the author's point of view about what people generally eat, wear, and want?**
- **What might the author want his readers to consider at the end of this story? The discussion here could refer to the blurb on the back of the book.**

⁴ Glossary of terms: <http://www.environment.gov.au/education/aussi/help/glossary.html>.

⁵ Philip Cam (1995) *Thinking Together: Philosophical inquiry for the classroom*, Primary English Teaching Association and Hale and Iremonger, Sydney.

A hyphen is a punctuation mark used to join the parts of some compound words, except when both words are nouns. In this book Colin Thompson uses hyphens to separate lists of words. Why has he done this? Has he achieved his purpose?

What other devices, including visual ones, are used to influence the reader?

Colin Thompson makes a number of generalisations in *The Short and Incredibly Happy Life of Riley*.

Explain what a generalisation is by providing examples from the book. It is important that students understand that there may be exceptions to a generalisation. Encourage them to seek and record exceptions to the generalisations in the book.

Discuss possible reasons for making such generalisations.

Students work in pairs or small groups to list the generalisations from the book and leave space to insert exceptions. For instance, students may find exceptions among their own classmates.

Generalisations	Exceptions
Example: People, of course, should never be allowed to have sticks with pointy ends, because they stick them into each other.	Example: Gardeners use garden stakes for their tomato plants and we sometimes use skewers when we barbeque food.

Ask the question — Who are the ‘people’ referred to in *The Short and Incredibly Happy Life of Riley*?

What the world eats

View TIME photo essays What the World Eats: [Part 1](#)⁶ and What the World Eats: [Part 2](#)⁷. Discuss. Using a selection of families from the photo essays, locate on a world map the countries in which they live.

Write brief descriptions of the lifestyle of each family by making inferences from the pictures. Draw students’ attention to the amount of packaging on and transport of goods, the energy required in

⁶ What the World Eats: Part 1: <http://www.time.com/time/photogallery/0,29307,1626519,00.html>.

⁷ What the World Eats: Part 2: <http://www.time.com/time/photogallery/0,29307,1645016,00.html>.

food processing and packaging and the **waste generated**⁸. Place the descriptions on a continuum, with one end being most like the lifestyles of people in *The Short and Incredibly Happy Life of Riley* and the other end least like their lifestyles.

_____Continuum_____

most like least like

Discuss and justify reasons for each placement.

Students can then discuss similarities and differences between themselves and the families depicted in the photo essays. Each writes a brief description of their lifestyle and adds it to the continuum, justifying its placement.

Introduce the concept of an ecological or global footprint

Calculate the global footprint of individuals, families, the class or school using an **Ecological Footprint calculator**⁹. There are a number of online calculators available, and state and local government websites often provide links. People or characters encountered throughout this unit of work may also be compared.

Return to the continuum and the world map. Discuss them in the light of information gained through calculating ecological footprints. Ask students to make generalisations about the world's people and the comparative sizes of their ecological footprints.

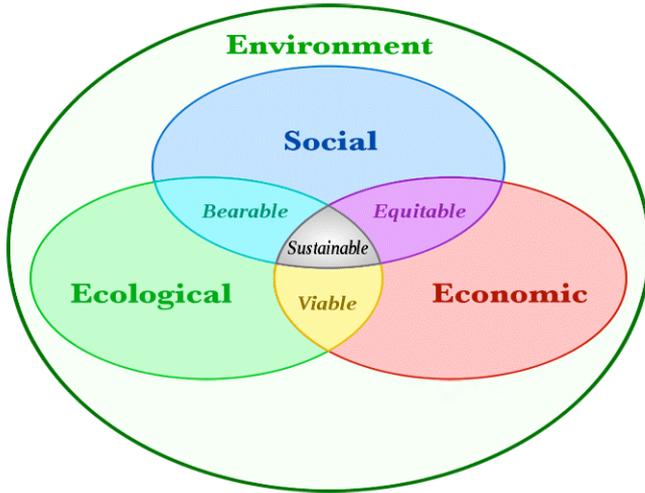
3. Sustainability and activities for Ida's Story and *Blueback*

Display the **sustainability diagram**.¹⁰

⁸ UK study on food packaging waste, as teacher background information:
<http://www.lga.gov.uk/lga/core/page.do?pagelid=1095335>.

⁹ Ecological footprint calculators from the Victorian Government:
<http://www.epa.vic.gov.au/ecologicalfootprint/calculators/default.asp>.

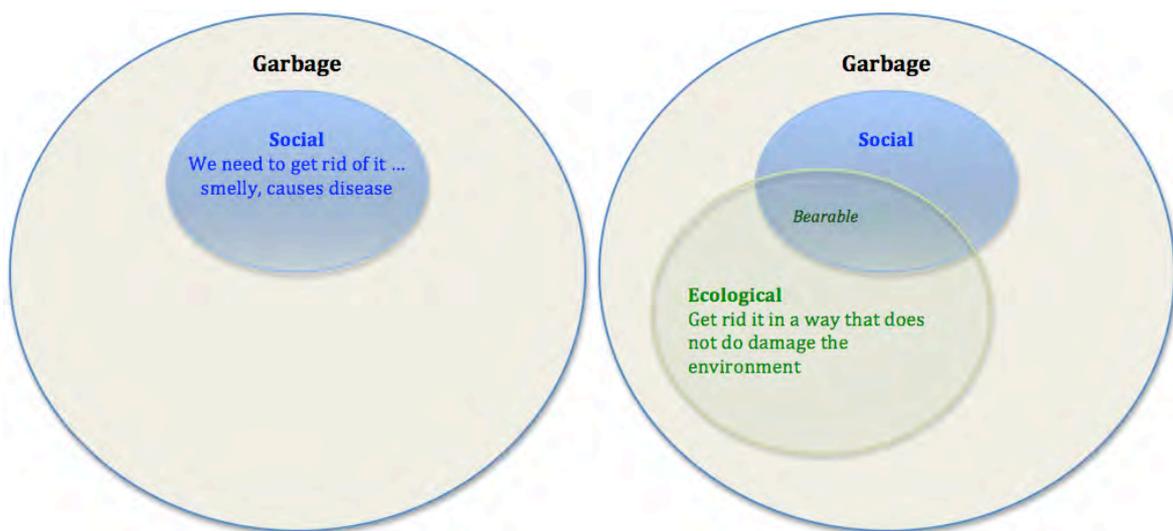
¹⁰ The 'three pillars' of sustainability bounded by the environment by Andrew Sunray:
<http://commons.wikimedia.org/wiki/File:Sustainability-diagram-v4.gif>.

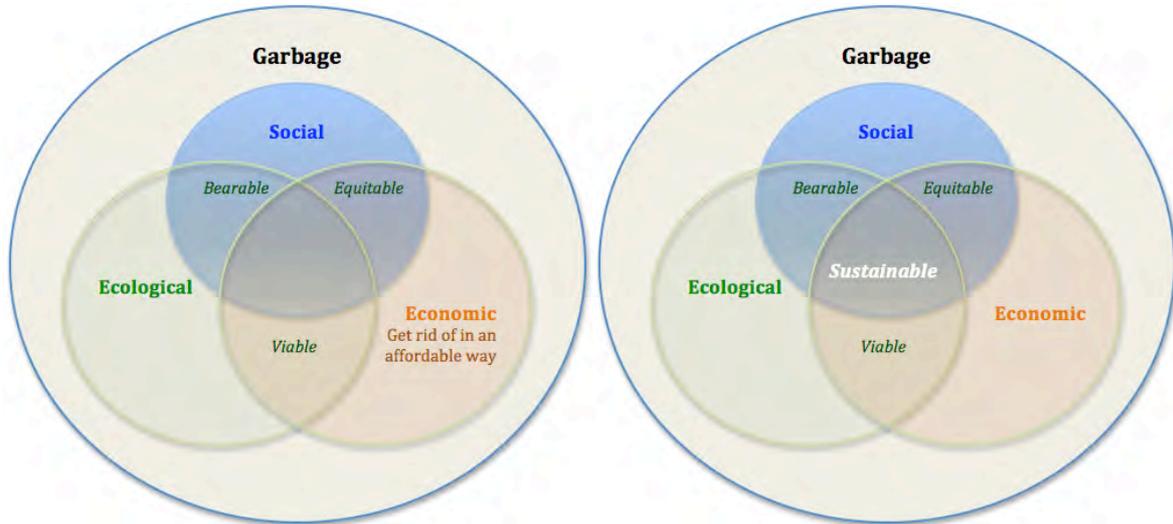


Sustainability diagram by Andrew Sunray CC BY-SA 3.0

Briefly explain Venn diagrams and the meaning of the intersections. Explain how the sustainability concepts, information and relationships are represented visually through the Venn diagram.

Only when a practice is bearable (no harm results), equitable (is fair), and viable (doable) will it be deemed sustainable. Use a series of images to help explain the diagram, showing how the 'three pillars of sustainability' work, using garbage as an environmental focus and issue.





Ida's story

Ida is a mother of seven, living in Burundi, a country of Africa and one of the world's poorest nations. She has been provided with a fuel-efficient stove through a World Vision global aid program. Read the transcript of part of her story. (Explain the term transcript to the students.)

My family's favourite dish is rice, bananas, beans and vegetables. When I heard about the new stoves, I thought this was great news. Trees are not as numerous as they used to be. At the moment, we don't have many trees at all. When I heard that these stoves would help us use less wood and cut down less trees than before I was very happy.

The new stove means that I now use less than half of the wood I used before. The firewood that I used for just three days now lasts me for seven days. This is a very good way to protect the environment. When I was using the traditional stove, I would have to cook from 2pm until 9pm. Now I start cooking dinner at 4pm and dinner is ready at 7pm. The old open stove required constant attention and we were all exposed to the smoke and fire much longer. I can now leave the food to cook and do other things like cleaning while my children are at school.

Now I even have some time to rest!

Locate Burundi on the world map and read World Vision's [country profile](#).¹¹

Brainstorm what other activities Ida could do with her time.

View the video of [Ida's Story](#)¹². Explain that Ida speaks the Kirundi language.

View the video a second time and ask the students to take notes from the video that tell about Ida's lifestyle in Burundi. After watching the video, return to the results of the brainstorming activity and compare and contrast. How does the reality compare with the brainstorm?

- **Have students consider the differences between the information in the transcript and the information in the video images. What information does the camera give the viewer that the transcript does not?**
- **Write a brief description of the lifestyle of Ida and her family and place it on the continuum. Justify the placement.**

Provide groups with an electronic or hard copy of the sustainability diagram. Ask students to use what they know about Ida and her stove to annotate the diagram and make a decision about the level of sustainability of her family's lifestyle. Share the annotated diagrams and discuss them. See an example below.



¹¹ Burundi country profile on the World Vision website: http://www.worldvision.com.au/Libraries/3_1_2_Country_Profiles_-_Africa/Burundi.sflb.ashx.

¹² World Vision Australia video of Ida's Story: <http://www.worldvision.com.au/Learn/SchoolResources/getconnectedsupplementaryresources/GetConnectedVideos7.aspx>.

Blueback: A fable for all ages

Have students read the novel *Blueback: A fable for all ages*.

The author Tim Winton is well known for his use of imagery. Imagery is the use of language that helps readers to create pictures in their minds. It includes figures of speech such as simile, metaphor and personification. In *Blueback*, the author also uses vivid verbs and nouns to draw the reader into the world of his characters.

Ask students to list metaphors, similes, and vivid verbs and nouns, and to mark with sticky notes passages that elicit in them an emotional response.

Use the sketch-to-stretch strategy (visualising a passage of text and interpreting it through drawing) to demonstrate understanding of the passage in Chapter 5 beginning with 'Birds chattered' and ending with 'from the house chimney'. Pay close attention to interpretation of 'flashed', 'grouched' and 'lifted'.

Students may use the strategy for passages they have marked and annotate them with their responses. How does the author use imagery to influence the reader?

Writing activity

Have students write a descriptive passage. Draw upon the lists of similes, metaphors, verbs and nouns to attempt to 'draw a picture in the mind of the reader'. Exchange passages with partners and use the sketch-to-stretch strategy to evaluate the effectiveness of their writing.

Create Popplets for Blueback, Dora, Costello and Abel. Students collectively create a representation of each character with information gained directly from the text and aspects inferred from the text. Students choose two or more of the characters and use the mind maps to create a short media presentation to present to the class.

Compare the lifestyle of Dora and her family with those on the continuum.

Comparing fiction and factual texts

Read the 'Fisheries Fact Sheet: [Western Blue Groper](http://www.fish.wa.gov.au/docs/pub/FactSheets/Fisheries%20Fact%20Sheet%20-%20Western%20blue%20groper.pdf)'¹³. Compare the information in the fact sheet with the Blueback popplet. Use information from the novel and fact sheet to mark on a map of

¹³ Fisheries Fact Sheet: Western Blue Groper:
<http://www.fish.wa.gov.au/docs/pub/FactSheets/Fisheries%20Fact%20Sheet%20-%20Western%20blue%20groper.pdf>.

Western Australia the possible locations of Longboat Bay and Robbers Head. Discuss ways in which the fact sheet and the novel complement each other.

Return to the continuum and world map. Compare and contrast the two contexts of Ida's story in Burundi and the story in *Blueback* set in Western Australia in terms of sustainability, with reference to social, ecological and economic differences.

4. Creating a sustainable future

'Abel and his mother lived off the sea and the land ...' (page 19 *Blueback*). Find evidence in *Blueback* to support this statement and list the ways in which Dora and Abel lived sustainably. Use the sustainability diagram to 'test' this.

At what point in the story did Dora's lifestyle become unsustainable?

Discuss implications for communities and the ways in which families, communities and governments at all levels need to cooperate to support sustainable living for all.

Dora wrote many letters to politicians to secure a marine sanctuary. Jointly construct a letter to a politician from Dora, seeking the establishment of a marine sanctuary. Use incidents described in the novel to support arguments and consider the use of both persuasive and formal language in producing an effective piece of writing.

The title of Tim Winton's novel is *Blueback: A fable for all ages*. If it is a fable, what is the moral of the story? Compare with the moral in *The Short and Incredibly Happy Life of Riley*, '...you just have to be happy with a lot less.'

Discuss ways in which people can be happy with a lot less.

Global citizenship in action

Reflect upon the findings from the ecological footprint calculations. Brainstorm ideas for reducing the size of the footprints at home and at school, and creating more sustainable futures. Use a mind map such as the one below to gather ideas.

Have students collectively develop a class wiki, or if computer access is limited, use a large notice board to which all students can contribute ideas and researched information, a sustainability

proposal, or a submission to the school, their families or to the local community. Consult the Australian Government's [Sustainability Curriculum Framework](#) (.pdf 1.2 MB)¹⁴ to assist with planning.



Set aside a section for small groups to add planning for their presentations. Read case studies provided on the [Australian Sustainable Schools Initiative](#)¹⁵ website.

Small groups prepare presentations to persuade the targeted audience to support the whole class proposal. Encourage students to use a variety of tools and multi-modal texts such as animations, PowerPoint, [prezis](#)¹⁶, graphs, tables, video, and popplets to make their message clear and persuasive.

¹⁴ The Australian Government's Sustainability Curriculum Framework:

<http://www.environment.gov.au/education/publications/pubs/curriculum-framework.pdf>.

¹⁵ Australian Sustainable Schools Initiative (AUSSI): <http://www.environment.gov.au/education/aussi/>.

¹⁶ Prezi, presentation software website: <http://prezi.com/>.

Brainstorm slogans and research quotes that could be used in the campaign.
View the wiki as a class and jointly plan the proposal.

Arrange a time to present the proposal to the targeted audience, such as the student council, parents, or members of the local municipal council. Using the jointly constructed letter from Dora as a model, write a letter to precede the presentation. Place letters on the wiki and conduct an online poll to select the letter to be used.

For the teacher

The [Australian Sustainable Schools Initiative](#)¹⁷ 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 [Global Perspectives: A framework for global education in Australian schools](#)¹⁸ for guidance for global perspectives within and across learning areas, and advice for teachers and school leaders on how to implement the framework. Refer to the [Sustainability Curriculum Framework – A guide for curriculum developers and policy makers](#)¹⁹ for how education for sustainability may be incorporated into curriculum from Kindergarten to Year 10. Watch this clip with Professor Philip Cam and students on the [teaching of philosophy](#)²⁰ at primary school level.

¹⁷ As above: <http://www.environment.gov.au/education/aussi/>.

¹⁸ Global Perspectives:

http://www.globaleducation.edna.edu.au/globaled/go/engineName/filemanager/pid/122/GPS_ForWeb_150dpi.pdf?actionreq=actionFileDownload&fid=24877.

¹⁹ Sustainability Curriculum Framework: <http://www.environment.gov.au/education/publications/curriculum-framework.html>.

²⁰ YouTube clip on Philosophy for children: http://www.youtube.com/watch?v=tk_B32HtnWg.