

Geography Alive (GTA Conference 2018)

Dr Grant Kleeman

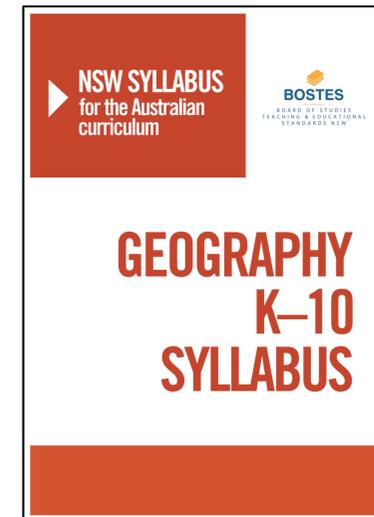
GTA NSW

Geography Alive

- A free resource developed by teachers for teachers
- Supporting the implementation of Geography Years F–6
- Funded by the Geography Teachers Association of NSW (GTA)
- An evolving resource – fully resourced exemplar units of work. More units to be added over time



The
Geography Teachers' Association
of New South Wales Inc.



Navigating the website



HOME PAGE

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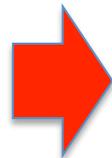


GEOGRAPHY ALIVE — GTA NSW'S PRIMARY GEOGRAPHY WEBSITE

The GTA NSW's Primary [Geography Alive](#) website has been developed to support the implementation of the *NSW Geography Syllabus for the Australian Curriculum in Primary years of schooling*.

The Geography Teachers' Association of NSW Inc. (GTA NSW) commissioned a team of experienced Primary school teachers to develop these exemplar units of work aligned to the K-6 requirements of the syllabus. Each unit consists of six to eight lessons complete with the resources required for their successful implementation in the classroom.

>> [Geography Alive website](#)



GEOGRAPHY ALIVE — [HOME](#)

UNITS OF STUDY: GEOGRAPHY (K-6)

The units in this website are to support the implementation of the *NSW Geography Syllabus for the Australian Curriculum in Primary years of schooling*. The Geography Teachers' Association of NSW Inc. (GTA NSW) commissioned a team of experienced Primary school teachers to develop these exemplar units of work aligned to the K-6 requirements of the syllabus. Each unit consists of six to eight lessons complete with the resources required for their successful implementation in the classroom.

Geography Alive is an evolving repository of resources. Additional units will be added to the website as they are developed. The overall structure of the *Geography Alive* website is shown below. Use the links in the table below or menu above to view each unit.

Stage	Topic	Unit
Early Stage (YEAR K)	Topic 1: People live in places	Unit 1: People live in places
		Unit 2: Maps and mapping
		Unit 3: Investigating Sydney's Q Station as an important place
Stage 1 (YEARS 1 & 2)	Topic 1: Features of places	Unit 1: Natural and Human Features of Places
		Unit 2:
		Unit 3:
	Topic 2: People and places	Unit 1: People, places and connections
		Unit 2: Tourism: Connecting People and Places
		Unit 3:
Stage 2 (YEARS 3 & 4)	Topic 1: Places are similar and different	Unit 1:
		Unit 2: My Place: Picture Book Study
		Unit 3:
	Topic 2: The Earth's environment	Unit 1:
		Unit 2:
		Unit 3:
Stage 3 (YEARS 5 & 6)	Topic 1: Factors that shape places	Unit 1:
		Unit 2:
		Unit 3: Bushfire Hazards In Australia
	Topic 2: A diverse and connected world	Unit 1:
		Unit 2: Investigating Asia
		Unit 3:



Geography Alive: Early Stage 1

Early Stage 1 (Year K): People live in places				
<p>Content focus:</p> <p>Students explore the places they live in and belong to. They develop an understanding of what makes a place special and how this may differ for different people. Students learn about the importance of looking after places. Students explore how the location of places can be represented.</p>		<p>Geographical concepts:</p> <ul style="list-style-type: none"> • Place: <i>the significance of places and what they are like.</i> For example: places students live in and belong to and why they are important. • Space: <i>the significance of location and spatial distribution, and ways people organise and manage the spaces that we live in.</i> For example: location of a place in relation to other familiar places. • Environment: <i>the significance of the environment in human life, and the important interrelationships between humans and the environment.</i> For example, how and why places should be looked after. 		
<p>Key inquiry questions:</p> <ul style="list-style-type: none"> • What are places like? • What makes a place special? • How can we look after the places we live in? 	<p>Outcomes:</p> <p><i>A student:</i></p> <ul style="list-style-type: none"> • identifies places and develops an understanding of the importance of places to people • communicates geographical information and uses geographical tools 	<p>Inquiry skills:</p> <p>Acquiring geographical information</p> <ul style="list-style-type: none"> • pose questions and make observations • record geographical data and information <p>Processing geographical information</p> <ul style="list-style-type: none"> • represent data using charts or graphs <p>• draw conclusions based on discussions of observations</p> <p>Communicating geographical information</p> <ul style="list-style-type: none"> • present information • reflect on their learning 	<p>Geographical tools:</p> <p>Maps</p> <ul style="list-style-type: none"> • pictorial maps <p>Fieldwork</p> <ul style="list-style-type: none"> • observing and recording data <p>Graphs and statistics</p> <ul style="list-style-type: none"> • tally charts, pictographs <p>Spatial technologies</p> <ul style="list-style-type: none"> • virtual maps <p>Visual representations</p> <ul style="list-style-type: none"> • photographs, illustrations, story books, multimedia 	<p>Content:</p> <p>Important places</p> <p><i>Students investigate the importance of places they live in and belong to.</i></p> <p>Aboriginal and Torres Strait Islander places</p> <p><i>Students investigate the Countries/Places important to Aboriginal or Torres Strait Islander Peoples.</i></p> <p>Locating places</p> <p><i>Students investigate how the location of places can be represented.</i></p>
<p>Units of Work:</p> <p>Unit 1: People Live in Places</p> <p>Unit 2: Maps and Mapping</p> <p>Unit 3: Investigating Sydney's Q Station As An Important Place</p>				

Available units:

Early Stage 1

Topic: People live in places

Unit 1: People live in places

Unit 2: Maps and mapping

Unit 3: Investigating Sydney's Q Station as an important place

Stage 1

Topic 1: Features or places

Unit 1: Natural and human features of places

Unit 2: Weather (coming soon)

Topic 2: People and places

Unit 1: People, places and connections

Unit 2: Tourism: Connecting people and places

Stage 2

Topic :1 Places are similar and different

Unit 1: My Place: Picture book study

Topic 2: The Earth's environment

Unit 1: Earth's environments (coming soon)

Stage 3

Topic 1: Factors that shape places

Unit 3: Bushfire hazards in Australia

Topic 2: A diverse and connected world

Unit 2: Investigating Asia

Elements of each unit:

- Unit cover page
- Individual lesson plans with step-by-step instructions
- Resource sheets
- Student worksheets
- PPT's featuring maps and illustrative material
- High quality maps, illustrations and photographs

Lesson 1 – Resource Sheet 2

Types of precipitation



Rain

Rain falls when drops of moisture in the atmosphere become too heavy to be held in the cloud and fall towards the earth's surface. If it's cold enough, the drops of moisture form ice crystals that join together to form large snowflakes. As the falling snow passes through warmer air, the flakes melt to become raindrops.



Snow

Snowflakes begin as tiny ice crystals in clouds where the temperature is at or below zero (0°C). As an ice crystal rises and falls within a cloud, it grows by joining with other ice crystals. When the snowflake becomes heavy enough, it falls towards the ground. If the temperature at ground level is at or below 0°C, snow will gather.



Hail

Hail is frozen raindrops that are produced in a thunderstorm. As water droplets rise rapidly in a storm, they form ice pellets that continue to grow until they begin to fall to the ground under the force of gravity.



Dew

Moisture in the air will form droplets known as dew when the air comes into contact with a cold surface. For example, grass at night.

Lesson 1 – Resource Sheet 2

Four Seasons



Winter Spring Summer Autumn

Lesson 3 – Worksheet 1

Five-day Weather Observation Sheet

Using data from a weather app record the weather experienced at a particular time of day over a five-day school week.

Time of day: _____

Element of weather

Temperature:
 • Actual temp:
 • Expected maximum
 • Expected minimum

Chance of rain (%):

Humidity (%):

Cloud cover: (Clear, partly cloudy, overcast)

Wind speed and direction:

Lesson 2 – Worksheet 1

Five-day Weather Observation Record Sheet
 Based on your observations use words and symbols to describe the weather experienced over a five-day school week.

Element of weather	Day 1	Day 2	Day 3	Day 4	Day 5
Temperature (cold, cool, warm, hot, very hot)					
Sunshine (bright, part cloudy, cloudy)					
Winds (strong, moderate, light, still)					
Rain (drizzle, light, moderate heavy)					



Weather

Lesson 1 – Worksheet 2

Task: Working in groups of four, brainstorm the ways rainy weather affects your daily routine at school and on the weekend. Share your group's discussion points with the rest of the class.

Daily school routine



Weekend routine



Lesson 5 – Resource Sheet 1

Natural hazards caused by the weather



Floods

Floods occur when a creek or river overflows its banks and its water covers normally dry land. Floods can result from heavy rainfall over a long period of time, rapid winter snowmelt or sudden, heavy downpours (resulting in flash flooding).



Heatwaves

Heatwaves are a long period of very hot weather. Severe heatwaves can cause widespread crop failures and thousands of deaths.



Droughts

Drought occurs when there is a long period of below-average rainfall in an area. Drought can destroy crops on farms and farm animals may die.



Dust storms

Dust storms happen when strong wind blow loose sand and dirt from a dry surface. Often occur in time of drought.



Severe storms

Storms are the most common weather hazard. They are a local disturbance in the atmosphere and are often accompanied by thunder, lightning, rain, hail and, in some cases, snow. They can occur anywhere and are responsible for more damage than any other natural hazard.



Cyclones

Tropical cyclones are very large storms that develop over warm tropical waters. They are usually accompanied by very strong winds and heavy rainfall.



Tornadoes

A tornado (or 'twister') is a rotating column of air extending from the base of a thunderstorm to the ground. Tornadoes can cause a lot of damage.



Avalanche

An avalanche is a rapid down hill movement of snow. They often happen on very steep slopes after very heavy snow falls.



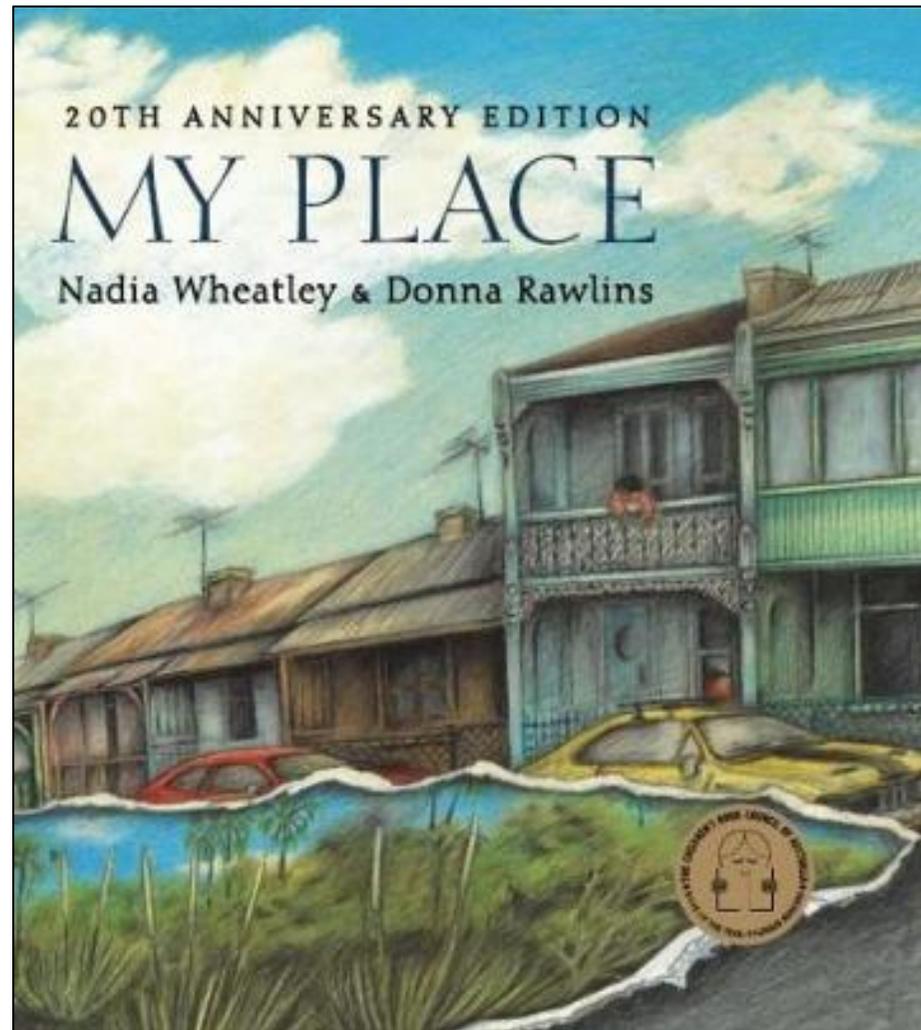
Bushfire

A bushfire is a fire that burns in grass, bush or woodland and can threaten life, property and the environment. They are most likely to ignite in hot, dry, windy weather.

Quality Resources!

Example Unit 1

My Place: A picture book-based unit of work for Stage 2
(Topic 1: Places are similar and different)



STAGE 2 (YEARS 3 & 4): TOPIC 1: PLACES ARE SIMILAR AND DIFFERENT

UNIT 2: MY PLACE: PICTURE BOOK STUDY

>> Unit 2 lessons

<p>Content focus:</p> <p>In this unit students examine the natural and human features of an Australian community through the study of an award winning picture book, <i>My Place</i>. They explore the changing land uses, settlement patterns and demographic characteristics of a place and use this information to imagine what it would be like to live in that place. Students have the opportunity to reflect on how people's perceptions of places determine the nature of their interactions with the environment with particular attention attached to protection of places.</p>		<p>Geographical concepts:</p> <ul style="list-style-type: none"> Place: the significance of places and what they are like. For example: places students live in and belong to and why they are important. Space: the significance of location and spatial distribution, and ways people organise and manage the spaces that we live in. For example: location of a place in relation to other familiar places. Environment: the significance of the environment in human life, and the importance of relationships between humans and the environment. For example, how and why places should be looked after. Interconnection: no object of geographical study can be viewed in isolation. For example: local and global links people have with places and the special connection Aboriginal and Torres Strait Islander Peoples maintain with Country/Place. 	
<p>Syllabus content area:</p> <p>Similarities and differences between places Students investigate the changing settlement patterns and demographic characteristics of places and the lives of the people who live there</p> <p>Perception and protection of places Students investigate how the protection of places by people's perception of places. Description of how and why people perceive places differently</p>			
<p>Key inquiry questions:</p> <ul style="list-style-type: none"> How do the places change over time? How and why do people observe places differently? How do peoples' perception of places influence the protection of places. <p>Note: This unit provides schools with an opportunity to develop and implement an integrated unit incorporating studies in Geography, History and English (literacy).</p>			
<p>Outcomes:</p> <p><i>A student:</i></p> <ul style="list-style-type: none"> examines features and characteristics of places and environments describes the ways people, places and environments interact examines differing perceptions about the management of places and environments acquires and communicates geographical information using geographical tools for inquiry. 	<p>Inquiry skills:</p> <p>Acquiring geographical information</p> <ul style="list-style-type: none"> pose geographical questions collect and record geographical data and information by observing and using visual representations <p>Processing geographical information</p> <ul style="list-style-type: none"> represent data by constructing mental maps draw conclusions based on interpretation of geographical information sorted into categories <p>Communicating geographically</p> <ul style="list-style-type: none"> present findings in a range of communication forms reflect on their learning and suggest responses to their findings 	<p>Geographical tools:</p> <p>Maps</p> <ul style="list-style-type: none"> mental (sketch) maps <p>Visual representations</p> <ul style="list-style-type: none"> story book-based illustrations and maps 	

>> Download My Place: Picture book study cover sheet>>

<p>LESSONS AND WORKSHEETS:</p> <p>Lesson 1: My Place: A picture book study</p> <p>Lesson 2: My Place: Picture book analysis oral presentations:: Resource Sheet 1 :: Worksheet 1 :: Worksheet 2</p> <p>Lesson 3: My Place: Analysing maps</p> <p>Lesson 4: My Place: Writing and drawing task</p> <p>Lesson 5: My Place: Environmental change.: Worksheet 1</p> <p>Lesson 6: My Place: Land use change.: Worksheet 1</p> <p>Lesson 7: My Place's Indigenous heritage</p> <p>Lesson 8: My Place: Protecting places hypothetical.: Resource Sheet 1</p>
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'My Place' Unit Cover Page

In this unit students examine the natural and human features of an Australian community through the study of an award winning picture book, *My Place*. They explore the changing land uses, settlement patterns and demographic characteristics of a place and use this information to imagine what it would be like to live in that place. Students have the opportunity to reflect on how people's perceptions of places determine the nature of their interactions with the environment with particular attention attached to protection of places.

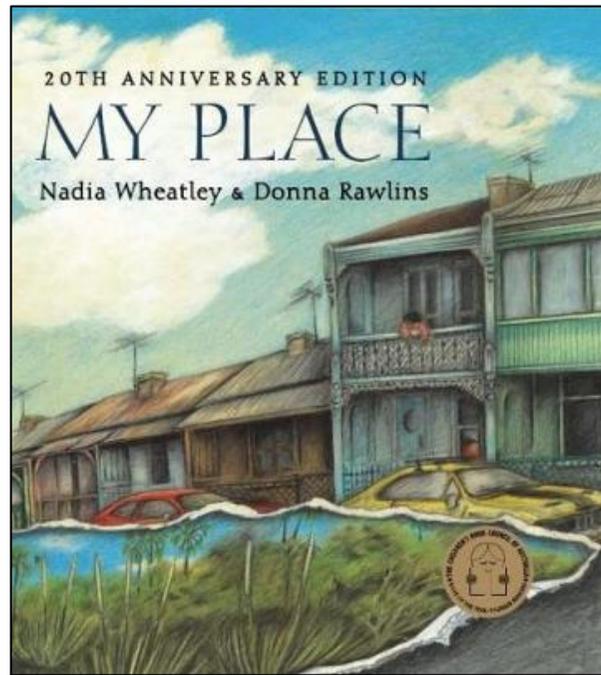
Links

LESSONS AND WORKSHEETS:

- Lesson 1: [My Place: A picture book study](#)
- Lesson 2: [My Place: Picture book analysis oral presentations](#) :: [Resource Sheet 1](#) :: [Worksheet 1](#) :: [Worksheet 2](#)
- Lesson 3: [My Place: Analysing maps](#)
- Lesson 4: [My Place: Writing and drawing task](#)
- Lesson 5: [My Place: Environmental change](#) :: [Worksheet 1](#)
- Lesson 6: [My Place: Land use change](#) :: [Worksheet 1](#)
- Lesson 7: [My Place's Indigenous heritage](#)
- Lesson 8: [My Place: Protecting places hypothetical](#) :: [Resource Sheet 1](#)

Lesson 1: My Place: A Picture Book Study

In this lesson students have an opportunity to consolidate their developing appreciation of the key geographical concepts of place, change, connections and environment. They do this by engaging with Nadia Wheatley and Donna Rawlins' picture book, *My Place*. Students focus on the history of one particular piece of land in Sydney from 1788 to 1988 through the stories of the various children who have lived there. Issues addressed in the story include environmental change, land use, settlement patterns, multiculturalism and Indigenous concepts of country.



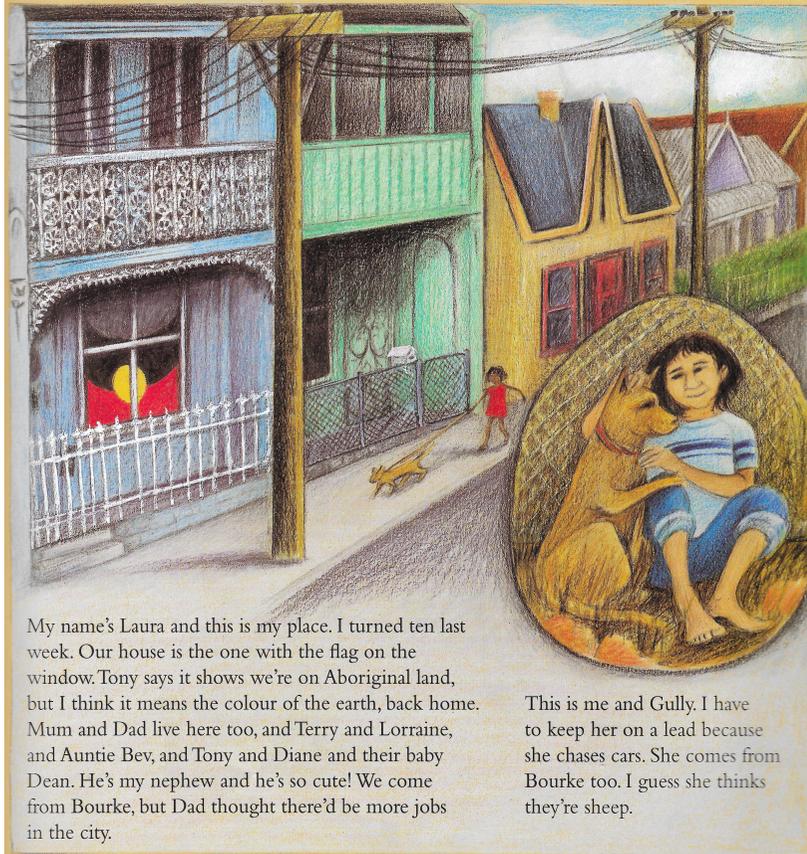
Step 1: Read the book *My Place* to the class explaining the concept of place and its importance to people. Point out that places undergo change and that there are elements of places worth protecting.

Step 2: Draw the students' attention to the front cover of the book. Questions to ask: What is the connection between the title of the book (*My Place*) and the front cover artwork? What is the significance of the tear across the bottom of the cover? What is revealed underneath? What does it symbolise?



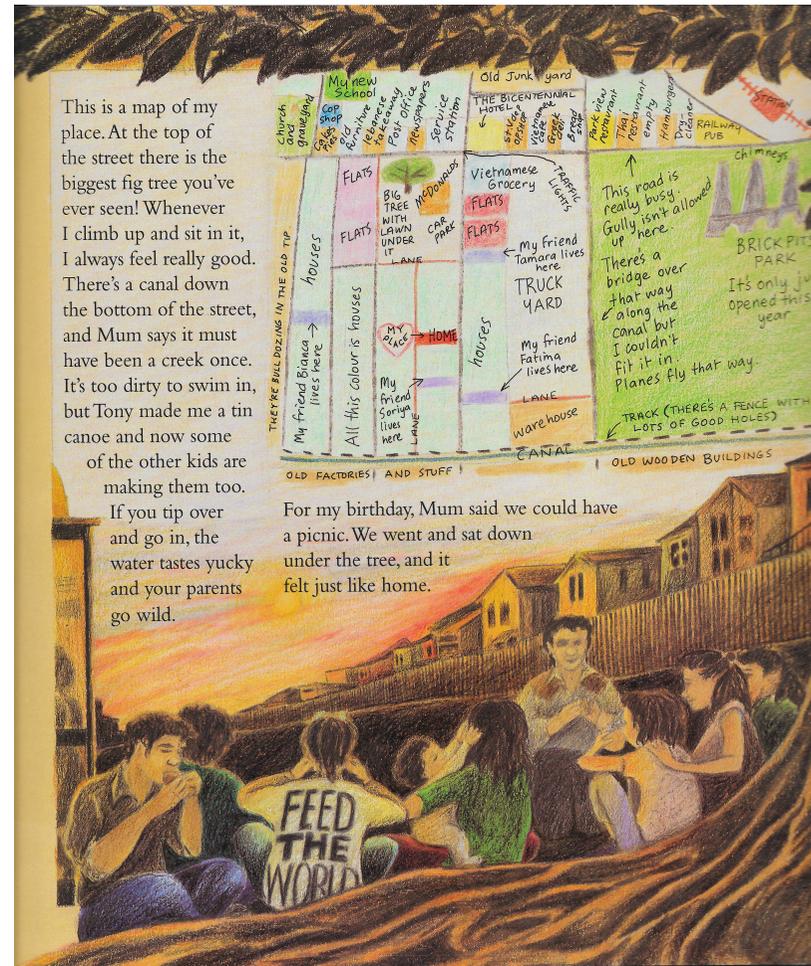
Step 3: Have the students turn to the timeline presented on the opening pages of the book. Questions to ask: What is the significance of the spiral in the top left-hand-corner? What does it symbolise? What events are listed on the timeline? Which of these relate to Australia's involvement in armed conflicts? Which events are of significance to Aboriginal people?

1988



My name's Laura and this is my place. I turned ten last week. Our house is the one with the flag on the window. Tony says it shows we're on Aboriginal land, but I think it means the colour of the earth, back home. Mum and Dad live here too, and Terry and Lorraine, and Auntie Bev, and Tony and Diane and their baby Dean. He's my nephew and he's so cute! We come from Bourke, but Dad thought there'd be more jobs in the city.

This is me and Gully. I have to keep her on a lead because she chases cars. She comes from Bourke too. I guess she thinks they're sheep.

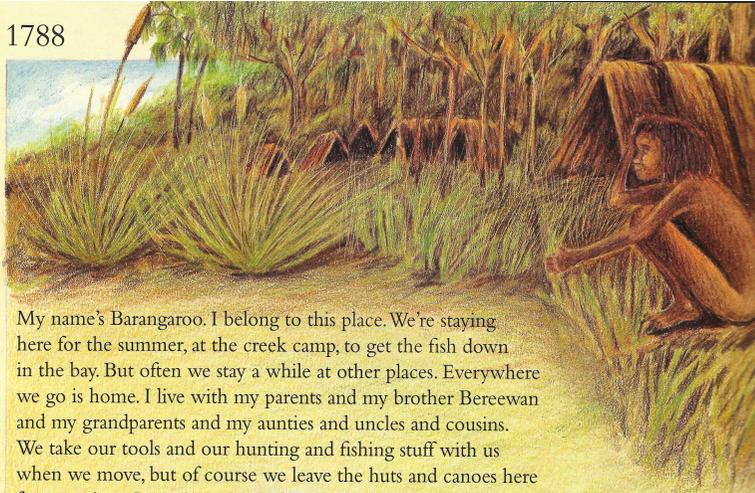


This is a map of my place. At the top of the street there is the biggest fig tree you've ever seen! Whenever I climb up and sit in it, I always feel really good. There's a canal down the bottom of the street, and Mum says it must have been a creek once. It's too dirty to swim in, but Tony made me a tin canoe and now some of the other kids are making them too. If you tip over and go in, the water tastes yucky and your parents go wild.

For my birthday, Mum said we could have a picnic. We went and sat down under the tree, and it felt just like home.

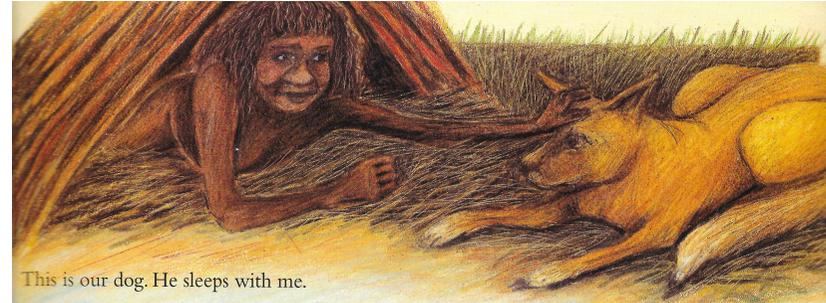
Step 4: Have students turn to the first double-page spread (1988). What are the key elements of each double-page spread? – the narrative text, the illustrations and a map. Make a list of the subject matter covered in text-based element of the double-page spread – the name and the age of the principal character, their place of origin, their animals and pet/s, and a reference to the 'big (fig) tree'. The illustrations provide an insight into the dress, customs and family life of the eras traversed in the story.

1788



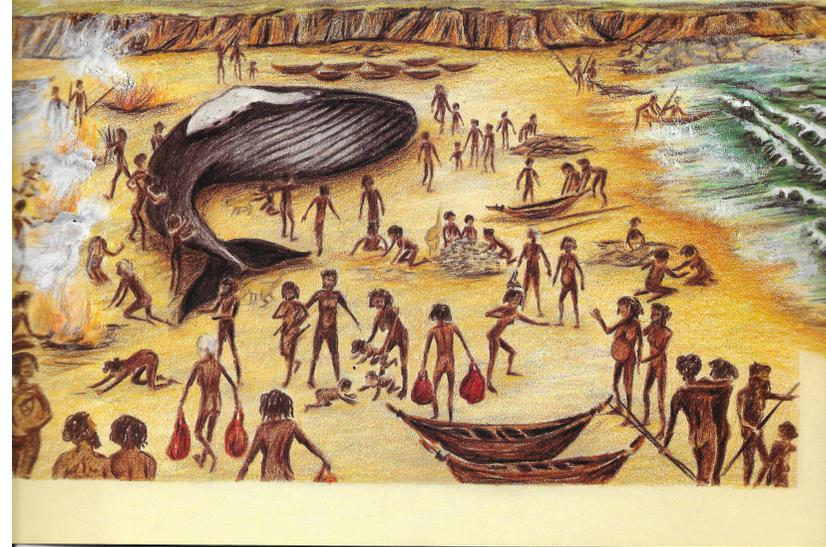
My name's Barangaroo. I belong to this place. We're staying here for the summer, at the creek camp, to get the fish down in the bay. But often we stay a while at other places. Everywhere we go is home. I live with my parents and my brother Bereewan and my grandparents and my aunties and uncles and cousins. We take our tools and our hunting and fishing stuff with us when we move, but of course we leave the huts and canoes here for next time. Sometimes I wonder what it would be like to stop in the same place always, but my grandmother says no one does that. I guess it would be boring.

This is a map of this place. We camp here because the creek water's so fresh and good, and we're close to the river and the bay. In the creek there's a great swimming hole where my cousins and I always play. My father says he swam in exactly the same place when he was a boy, and my grandfather says he did too. At the top of the hill there's a big fig tree.



This is our dog. He sleeps with me.

Last week a whale got washed up on the bay, so we invited some other people from round about, and had a big barbecue. As well as the meat, we had piles of vegetables, and oysters and pippies and crabs and octopus and I've forgotten what else. I ate so much I thought I'd explode. Then I fell asleep till the night-time party started.



Step 5: Point out to students that the story progresses from relatively recent times (1988) to Australia's Aboriginal past (pre-1788). What is the significance of this approach?

Lesson 2 – Resource Sheet 1

Allocate one of the following characters to a student in the class:

Year	Character	Student's name
1988	Laura	
1978	Mike	
1968	Sofia	
1958	Michaelis	
1948	Jen	
1938	Col	
1928	Bridie	
1918	Berti (Champ)	
1908	Evelyn	
1898	Rowley	
1888	Victoria	
1878	Heinrich	
1868	Minna	
1858	Benjamin	
1848	Johanna	
1838	Davey	
1828	Alice	
1818	Charles	
1808	Sarah	
1798	Sam	
1788	Barangaroo	

Lesson 2: My Place: Oral Presentation

In this lesson students have the opportunity to focus on one of the time-specific children's stories featured *My Place*. They analyse the elements of the double-page spread – narrative, artworks and map – and prepare a short oral presentation to communicate their findings to the class.

Step 1: Re-read the book *My Place* to the class. Ask the students to follow the story as you read it.

Step 2: Allocate one of the principal characters in *My Place* to each of the students in the class*. If you have more than 21 students allocate one of the secondary characters to the additional children. Use teacher **Resource Sheet 1** to record the names of students.

Lesson 2 – Worksheet 1

Individual Student Summary Sheet

Task: As you read your double-page spread use the following subheadings to organise your information and prepare for your presentation to the class:

Year: _____ Name of character: _____ Age: _____

Place of origin: _____

What did they do that was special?

Type and name of animals and/or pets:

Any special events (historical, family related or celebrations) mentioned:

Describe the types of cloths people are wearing:

Was the fig tree referred to? Yes _____ No _____

Was the creek/canal mentioned? Yes _____ No _____

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Step 3: Ask students to study the time-specific story allocated to them. As the students examine the elements of the double-page spread – the narrative, artworks and map – have them summarise their observations on **Worksheet 1**.

Step 4: Students are asked to use the information recorded on **Worksheet 1** to prepare a short oral presentation which they will subsequently use to introduce the class to the characters and setting of the time-specific, double-page spread they were allocated.

Lesson 2 – Worksheet 2

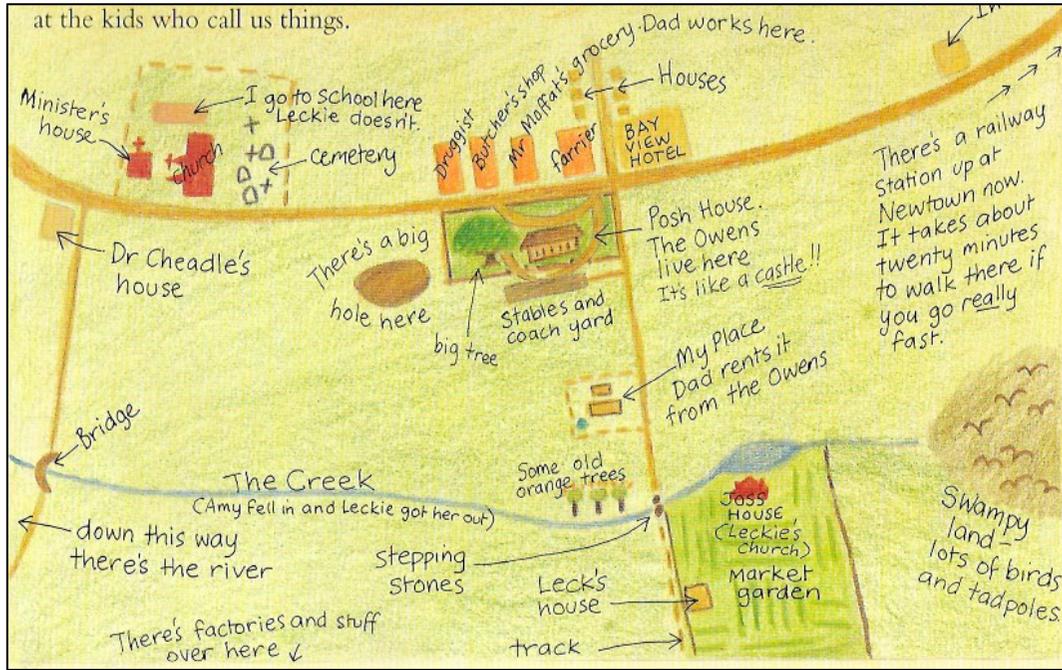
My Place: Story Summary Sheet

Task: As each of your classmates presents their oral report, make a summary of the information presented in the table below.

Year	Character	Age	Origins	Type of animal/pet	Special events	Fig tree mentioned (yes/no)	Creek/canal mentioned (yes/no)
1988	Laura						
1978	Mike						
1968	Sofia						
1958	Michaelis						
1948	Jen						
1938	Col						
1928	Bridie						
1918	Berti (Champ)						
1908	Evelyn						
1898	Rowley						
1888	Victoria						
1878	Heinrich						

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Step 5: Students take turns to present their oral reports. This should be undertaken in the order of the double-page spreads in the book– i.e. working from 1988 back to 1788. As students listen to the reports they record key pieces of information on **Worksheet 2**.



Lesson 3: My Place: Analysing maps

In this lesson students focus on the map-based elements of *My Place*. They identify the role of the maps in the context of the story and how they reveal change over time. They also consider how maps, such as those featured in *My Place*, provide an important insight into a person's view of their surroundings. They also focus on how transport technologies change over time and identify those features that remain a constant over the timespan covered by the story.

- **Step 1:** Refer students to one of the double-page spreads in *My Place*. Make the point that an important element of the spread is the map the author and illustrator have included. The maps feature a lot of information about the world as experienced by the characters in each part of the story. Note that maps, as used in the story, provide the reader with a range of information. They offer an insight into what the principal character considers important in the place in which they live; they reveal the changes taking place in the neighbourhood over time including land uses; and they provide an important insight into the changes taking place in the natural environment.
- **Step 2:** Discuss the role of maps in geography. Note that geographers use maps to find out information about places (including its location) and to identify patterns and changes in the landscape. Point out that the maps in *My Place* show the changes taking place in a specific area over 200 years (1788 to 1988).

- **Step 3:** Make the point that the maps included in *My Place* are called 'mental maps'. Mental maps are the maps people draw using the knowledge they have about a place. They are a person's point-of-view (perspective) of an area. They are sketch maps and are not drawn to scale. Students will have an opportunity to draw their own mental maps in the next lesson.
- **Step 4:** Ask students familiarise themselves with the maps in *My Place*. As they work through *My Place* students are asked to locate the following features on each of the maps: 'home' or 'my place'; the 'big fig/tree'; and the 'creek' and/or 'canal'. Note that these are constants in a changing neighbourhood.

Lesson 4: My Place: Writing and drawing task

This lesson students again focus on the map-based elements of *My Place*. In doing so, they have the opportunity to draw a mental map of their own neighbourhood and then incorporate it in a story modelled on those featured in *My Place*.

Step 1: Revisit the focus of the previous lesson by again drawing the students' attention to the way maps are used in *My Place*.

Step 2: Using an A3 piece of paper and coloured pencils (and/or paints) ask students to draw (paint) a map of their own neighbourhood. They are asked to include only the features that are important to them – For example, their home, local shops, church, school, parks, landmarks, sports fields, where their friends live etc. Students need not worry about scale and are encouraged to use symbols, shading and colour.

Step 3: Students use their map as the centrepiece of personal story modelled on those in *My Place*. They should include reference to the following elements in their writing: their name, age, family members, the origin/s of their family, the name and type of any pet/s, and any special events or celebrations they have participated in recently. Encourage students to add a few sentences to their map and story describing how they feel about their place. Students are also encouraged to add drawings/photographs of their family, favourite pet and a picture of their house. The drawings could also be used to communicate the types of clothing people wear and the modes of transport used.

Step 3: Ask, at random, a cross-section of the class to present their story and map.

Step 4: Display students' completed works on the walls of the classroom.

Additional task: Ask the students to think about how a double-page spread, similar to those featured in *My Place*, would look like if written by a young person living in your place in the 2050s.

Geography Alive: Stage 2 Geography (Topic 1; Unit 2)

Lesson 5: My Place: Environmental change		
<p>Content focus:</p> <p>In this lesson students focus on environmental change. Of particular interest is how the activities of people have transformed the natural environment of the area and the nature of these changes with a particular focus on air and water quality in the creek/canal. Also addressed is the role played by the 'big tree' in the life of those living in the home central to <i>My Place</i>.</p>		<p>Resources:</p> <ul style="list-style-type: none"> • Class set of <i>My Place</i> • Worksheet 1: The big (fig) tree
<p>Key inquiry questions:</p> <ul style="list-style-type: none"> • What are the principal features and characteristics of specific places and environments? • How do people, places and environments interact? • How do the activities of people affected water quality. 	<p>Outcomes:</p> <p><i>A student:</i></p> <ul style="list-style-type: none"> • demonstrates a developing appreciation of the concepts of place, change, connections and environment • describes some ways in which people, places and environments interact. 	<p>Lesson sequence:</p> <ul style="list-style-type: none"> • Step 1: To begin the lesson, revise the concept of environment with the class. Note that the environment consists of our total surroundings. It includes elements that are natural (physical) and those that are the product of human activity. • Step 2: Starting at the back of the book, ask students to read through <i>My Place</i>, tracking the changes taking place in the environment over time. Focus on questions such as: <ul style="list-style-type: none"> – How have the elements of the natural environment been modified by the activities of people? – What happens to the water in the creek? What causes the water to change? – What happens to the air quality? What causes the air quality to change? • Step 3: The 'big tree' referred to on the last page of the book is featured throughout <i>My Place</i>. It plays a symbolic role, linking the lives of those featured in the book. Using Worksheet 1 ask students to study the relevant pages and fill in the boxes for the selected years. Ask them to briefly outline the role played by the 'big (fig) tree' in the life of the character featured on the double-page spread. In what ways does the 'big (fig) tree' cater for the needs of children? Think in terms of imaginative play, a place of solitude and reflection, and sense of continuity in a changing world. Why has an element of the natural environment been selected for such a role? • Additional task: <i>My Place</i> makes a point about the long-term impact that people have had on the natural environment. Ask students to interview someone (family or friend) about how the area in which they live may have looked in the past. Have students compare their findings with those of their classmates.

Lesson 5: Environmental Change

In this lesson students focus on environmental change. Of particular interest is how the activities of people have transformed the natural environment of the area and the nature of these changes with a particular focus on air and water quality in the creek/canal. Also addressed is the role played by the 'big tree' in the life of those living in the home central to *My Place*.

Step 1: To begin the lesson, revise the concept of environment with the class. Note that the environment consists of our total surroundings. It includes elements that are natural (physical) and those that are the product of human activity.

Step 2: Starting at the back of the book, ask students to read through *My Place*, tracking the changes taking place in the environment over time. Focus on questions such as:

- How have the elements of the natural environment been modified by the activities of people?
- What happens to the water in the creek? What causes the water to change?
- What happens to the air quality? What causes the air quality to change?

Lesson 5 – Worksheet 1

Task: One of the elements linking the lives of those children featured in *My Place* is the 'big tree'. Fill in the boxes below, briefly outlining the role played by the 'big tree' in the life of the character featured in each of the specified double-page spread.

1788	1798	1818
1988		1838
1968		1858
1938	1908	1898

Step 3: The 'big tree' referred to on the last page of the book is featured throughout *My Place*. It plays a symbolic role, linking the lives of those featured in the book. Using **Worksheet 1** ask students to study the relevant pages and fill in the boxes for the selected years. Ask them to briefly outline the role played by the 'big (fig) tree' in the life of the character featured on the double-page spread. In what ways does the 'big (fig) tree' cater for the needs of children? Think in terms of imaginative play, a place of solitude and reflection, and sense of continuity in a changing world. Why has an element of the natural environment been selected for such a role?

Additional task: *My Place* makes a point about the long-term impact that people have had on the natural environment. Ask students to interview someone (family or friend) about how the area in which they live may have looked in the past. Have students compare their findings with those of their classmates.

Geography Alive: Stage 2 Geography (Topic 1; Unit 2)

Lesson 6: My Place: Land use change		
<p>Content focus:</p> <p>In this lesson students again focus on the map-based elements of <i>My Place</i>. In this instance they are interested in tracing land use change over time. They do this by the studying what land is used for at specific points in time between 1788 and 1988.</p>		<p>Resources:</p> <ul style="list-style-type: none"> Class set of <i>My Place</i> Worksheet 1: Changing land uses in My Place
<p>Key inquiry questions:</p> <ul style="list-style-type: none"> What are the principal features and characteristics of specific places and environments? How do people perceptions about places differ? How do land uses change over time? What factors contribute to the changes on land use occurring over time? 	<p>Outcomes:</p> <p><i>A student:</i></p> <ul style="list-style-type: none"> demonstrates a developing appreciation of the concepts of place, change, connections and environment analyses maps to identify changes in land use. communicates the understanding of land use change using appropriate terminology. 	<p>Lesson sequence:</p> <ul style="list-style-type: none"> Step 1: Students are introduced to the concept of 'land use'. Land use involves the modification of natural environments into built and managed environments such as housing estates, commercial and industrial areas, recreational facilities, agricultural fields and pastures. It can also involve the modification of existing built environments – for example, the conversion of a farm into a housing estate or the redevelopment of an industrial site into parklands. Land use can also be defined as the arrangement of the activities people undertake in places. Step 2: Direct students to the 1788 double-page spread. Ask students to describe the nature of the environment at the time of European settlement (or invasion, depending on one's perspective). Ask students to identify the elements of the natural (or physical) environment featured on the map and the resources used to sustain life sourced from the environment. Step 3: Students are asked to study the maps for 1808, 1848, 1878, 1898, 1928, 1958 and 1988. Using Worksheet 1 students describe the land uses they observe on the maps. As they do, they determine whether these land uses are residential, commercial, industrial, recreational or other. Step 4: Ask students to consider the following questions: <ul style="list-style-type: none"> Where are the area's commercial activities (its shops, hotels, post office etc.) located? What types of land uses line the creek/canal? How has the site of the brickworks changed over time? What has happened to the site of the tip in recent years? What evidence is there of the community's increasing cultural diversity? Step 5: Study the changes in land use recorded on Worksheet 1. As a class, discuss the changes observed. What do they tell us about the nature of technological, economic and social change in Australia over time?

Lesson 6: Land Use Change

In this lesson students again focus on the map-based elements of *My Place*. In this instance they are interested in tracing land use change over time. They do this by the studying what land is used for at specific points in time between 1788 and 1988.

- **Step 1:** Students are introduced to the concept of ‘land use’. Land use involves the modification of natural environments into built and managed environments such as housing estates, commercial and industrial areas, recreational facilities, agricultural fields and pastures. It can also involve the modification of exiting built environments – for example, the conversion of a farm into a housing estate or the redevelopment of an industrial site into parklands. Land use can also be defined as the arrangement of the activities people undertake in places.
- **Step 2:** Direct students to the 1788 double-page spread. Ask students to describe the nature of the environment at the time of European settlement (or invasion, depending on one’s perspective). Ask students to identify the elements of the natural (or physical) environment featured on the map and the resources used to sustain life sourced from the environment.

Lesson 6 – Worksheet 1

Changing land uses in My Place

Year	Land uses
1808	
1848	
1878	
1898	

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Step 5: Study the changes in land use recorded on **Worksheet 1**. As a class, discuss the changes observed. What do they tell us about the nature of technological, economic and social change in Australia over time?

Step 3: Students are asked to study the maps for 1808, 1848, 1878, 1898, 1928, 1958 and 1988. Using **Worksheet 1** students describe the land uses they observe on the maps. As they do, they determine whether these land uses are residential, commercial, industrial, recreational or other.

Step 4: Ask students to consider the following questions:

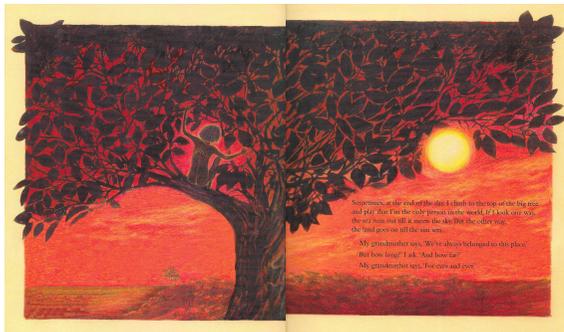
- Where are the area's commercial activities (its shops, hotels, post office etc.) located?
- What types of land uses line the creek/canal?
- How has the site of the brickworks changed over time?
- What has happened to the site of the tip in recent years?
- What evidence is there of the community's increasing cultural diversity?

Geography Alive: Stage 2 Geography (Topic 1; Unit 2)

Lesson 7: My Place's Indigenous heritage		
<p>Content focus:</p> <p>In this lesson students focus on those elements of the book that explore the relationship between Indigenous Australians and Country. In doing so, they reflect on the relationship between Aboriginal and Torres Islander peoples and the land and identify key events in the post-1788 experience of Indigenous Australians. Also addressed is the diversity of the Australian population and the changing nature of the family.</p>		<p>Resources:</p> <ul style="list-style-type: none"> Class set of <i>My Place</i>
<p>Key inquiry questions:</p> <ul style="list-style-type: none"> What are the principal features and characteristics of specific places and environments? How do people, places and environments interact? How do people perceptions about places differ? In what ways does the meaning of 'home' for Indigenous Australian's differ from that of non-indigenous Australians? What factors have contributed to the diversity of the Australian population? 	<p>Outcomes:</p> <p><i>A student:</i></p> <ul style="list-style-type: none"> demonstrates a developing appreciation of the concepts of place, change, connections and environment describes features and characteristics of places and environments describes some ways in which people, places and environments interact explains, in simple terms, the meaning ascribed to Country by Indigenous Australians identifies important events in the post-1788 lives of Indigenous Australians recognises the diversity of Australia's population. 	<p>Lesson sequence:</p> <ul style="list-style-type: none"> Step 1: Direct students to the 1788 double-page spread and the following two pages. Ask them to read the relevant text and study the map included. Discussion questions: <ul style="list-style-type: none"> What is meant by the statement 'Everywhere we go is home'? How does this differ from the meaning attached to 'home' in the rest of the book? What is special about the nature of Barangaroo's family? What role does the creek play in the life of Barangaroo and her family? What celebration did Barangaroo participate in? What does this tell us about the relationship between Aboriginal people and the environment? Step 2: On the very last page of <i>My Place</i>, Barangaroo climbs to the top of the big fig tree and dreams that she is the only person in the world. Barangaroo's grandmother makes the point: 'We've always belonged to this place.' ... 'For ever and ever'. What is meant by the grandmother's statement? Step 3: Class discussion. Based on your students' developing understanding of Country pose the question: How and why do Indigenous Australians and non-indigenous Australian's often perceive places differently. How might this impact on the ways we protect places. Step 4: Ask the students to revisit the timeline on Pages 1 & 2 of <i>My Place</i>. Identify the key events in Australia's Indigenous history noted in the timeline. Why are they significant? Step 5: Barangaroo lives with her extended family – parents, siblings, grandparents, aunties, uncles and cousins. Ask students to reflect on the ways in which families have changed over the time span covered by <i>My Place</i>. Step 6: Have students study their <i>My Place: Story Summary Sheet</i> completed in Lesson 2. What was each family's country of origin? What does the information reveal about the changing composition of the Australian population? What is meant by the term 'multiculturalism'?

Lesson 7: My Place's Indigenous heritage

In this lesson students focus on those elements of the book that explore the relationship between Indigenous Australians and Country. In doing so, they reflect on the relationship between Aboriginal and Torres Islander peoples and the land and identify key events in the post-1788 experience of Indigenous Australians. Also addressed is the diversity of the Australian population and the changing nature of the family.



Step 1: Direct students to the 1788 double-page spread and the following two pages. Ask them to read the relevant text and study the map included. Discussion questions:

- What is meant by the statement 'Everywhere we go is home'? How does this differ from the meaning attached to 'home' in the rest of the book?
- What is special about the nature of Barangaroo's family?
- What role does the creek play in the life of Barangaroo and her family?
- What celebration did Barangaroo participate in? What does this tell us about the relationship between Aboriginal people and the environment?

Step 2: On the very last page of *My Place*, Barangaroo climbs to the top of the big fig tree and dreams that she is the only person in the world. Barangaroo's grandmother makes the point: 'We've always belonged to this place.' ... 'For ever and ever'. What is meant by the grandmother's statement?

Step 3: Class discussion. Based on your students' developing understanding of Country pose the question: How and why do Indigenous Australians and non-Indigenous Australian's often perceive places differently. How might this impact on the ways we protect places.

Step 4: Ask the students to revisit the timeline on Pages 1 & 2 of *My Place*. Identify the key events in Australia's Indigenous history noted in the timeline. Why are they significant?

Step 5: Barangaroo lives with her extended family – parents, siblings, grandparents, aunties, uncles and cousins. Ask students to reflect on the ways in which families have changed over the time span covered by *My Place*.

Step 6: Have students study their *My Place: Story Summary Sheet* completed in Lesson 2. What was each family's country of origin? What does the information reveal about the changing composition of the Australian population? What is meant by the term 'multiculturalism'?

Geography Alive: Stage 2 Geography (Topic 1; Unit 2)

Lesson 8: My Place: Protecting places hypothetical		
<p>Content focus:</p> <p>In this lesson students focus on protecting places. In doing so, they engage in a multi-stage hypothetical that incorporated group work, values clarification task, a debate, a writing task and the role playing of active and informed citizenship.</p>		<p>Resources:</p> <ul style="list-style-type: none"> • Class set of <i>My Place</i> • Resource Sheet 1: Hypothetical development proposal • Kleeman, G. (2017). <i>Geography Literacy Unlocked</i>, AGTA – Unit 3.3, Debates pp. 100–102.
<p>Key inquiry questions:</p> <ul style="list-style-type: none"> • How do people, places and environments interact? • How do people perceptions about places differ? • How do people's perceptions of places impact on decisions related to the protection of elements of the natural and built environments? 	<p>Outcomes:</p> <p><i>A student:</i></p> <ul style="list-style-type: none"> • demonstrates a developing appreciation of the concepts of place, change, connections and environment • recognises the need to protect elements of the natural and built environments • appreciates how and why people perceive places differently • explains how people's perceptions influences decisions related to the protection of places. 	<p>Lesson sequence:</p> <ul style="list-style-type: none"> • Step 1: Read the hypothetical development proposal to the class. <p>Hypothetical: A group of property developers plans to redevelop the site occupied by McDonald's and the adjacent car park (see the 1988 map). Part of their plan includes the purchase of the open space currently covered with grass and the old fig tree. The tree is a historic landmark in the local area and pre-dates the arrival of the First Fleet in 1788. The development application lodged with the local council proposes that a 10-story office block with ground-level retail outlets be built on the site. One of these will house a modern McDonald's outlet. Fifty jobs will be created during construction and in excess of 300 people will work in the building once complete. The pro-development council has agreed to a land swap with the developer. A new park will be developed on another site as compensation. The new park will feature three newly planted fig trees. Those opposed to the development have gone to the Land and Environment Court in an effort to have the development stopped. You are a judge of the Land and Environment Court. Will you allow the development to go ahead?</p> • Step 2: Ask the students to read each of the statements on made by members of the <i>My Place</i> community (see Resource Sheet 1). They are then asked to list the statements that are in favour of the development proposal and a separate list of the statements that are not. • Step 3: Students individually determine the point of view they agree with. Then, in small groups of four or five the students they discuss the different views about the proposed development. They are required to reach agreement on what the group believes should happen. They should be prepared to defend their group's point of view. • Step 4: Class debate. Have the people on each side of the discussion undertaken in <i>Step 3</i> present the case for the other side, using exact arguments and a debating format (see Kleeman, 2017). Topic: <i>The development proposal should go ahead</i>. At the end of the debate, conduct a secret ballot to determine whether the class will recommend that the resort should go ahead. • Step 5: Writing task. Ask the students to write an exposition outlining the arguments they would use to justify their point of view on the issue. Topic: In your roles as a Judge in the Land and Environment determine whether the development should be permitted. Justify your decision. • Step 6: Ask a cross-section of students to read out their expositions to the class.

My Place: Protecting places hypothetical

In this lesson students focus on protecting places. In doing so, they engage in a multi-stage hypothetical that incorporated group work, values clarification task, a debate, a writing task and the role playing of active and informed citizenship.

Step 1: Read the hypothetical development proposal to the class.

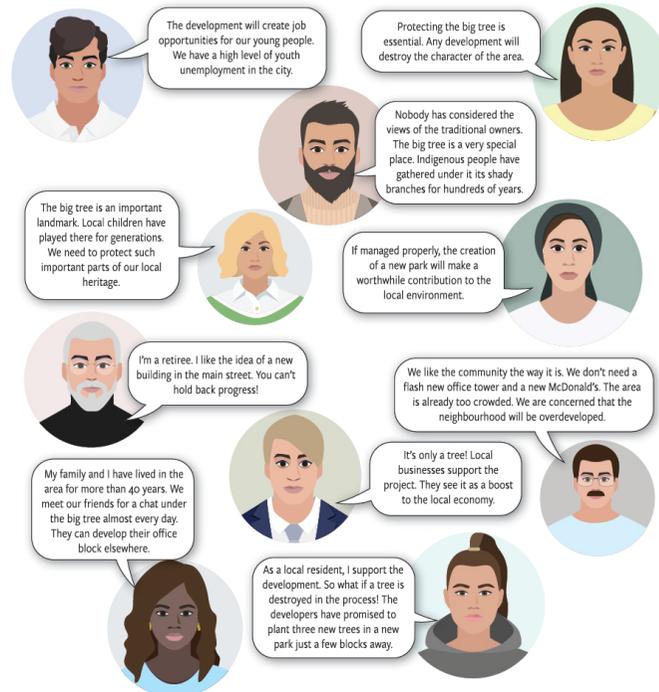
Step 2: Ask the students to read each of the statements on made by members of the *My Place* community (see **Resource Sheet 1**). They are then asked to list the statements that are in favour of the development proposal and a separate list of the statements that are not.

Lesson 8 – Resource Sheet 1

Development proposal hypothetical

Hypothetical: A group of property developers plans to redevelop the site occupied by McDonald's and the adjacent car park (see the 1988 map). Part of their plan includes the purchase of the open space currently covered with grass and the old fig tree. The tree is a historic landmark in the local area and pre-dates the arrival of the First Fleet in 1788. The development application lodged with the local council proposes that a 10-story office block with ground-level retail outlets be built on the site. One of these will house a modern McDonald's outlet. Fifty jobs will be created during construction and more than 300 people will work in the building once complete. The pro-development council has agreed to a land swap with the developer. A new park will be developed on another site as compensation. The new park will feature three newly planted fig trees. Those opposed to the development have gone to the Land and Environment Court in an effort to have the development stopped. You are a judge of the Land and Environment Court. Will you allow the development to go ahead?

Community views on the proposed development



Step 3: Students individually determine the point of view they agree with. Then, in small groups of four or five the students they discuss the different views about the proposed development. They are required to reach agreement on what the group believes should happen. They should be prepared to defend their group's point of view.

Step 4: Class debate. Have the people on each side of the discussion undertaken in *Step 3* present the case for the other side, using exact arguments and a debating format. Topic: *The development proposal should go ahead*. At the end of the debate, conduct a secret ballot to determine whether the class will recommend that the development should go ahead.

Step 5: Writing task. Ask the students to write an exposition outlining the arguments they would use to justify their point of view on the issue. Topic: In your roles as a Judge in the Land and Environment determine whether the development should be permitted. Justify your decision.

Step 6: Ask a cross-section of students to read out their expositions to the class.

Example Unit 2

Bushfires (Stage 3)

Lesson 1: Natural hazards and disasters (Bushfires)

Lesson 2: The conditions under which bushfires occur

Lesson 3: Bushfire attack and fire danger ratings

Lesson 4: Aboriginal use of fire

Lesson 5: *Fabish: The Horse that Braved a Bushfire*

Lesson 6: *Fire: A Picture Book Study*

Lesson 7: Surviving Bushfires

Lesson 1: Natural hazards and disasters (Bushfires)

Students distinguish between natural hazards and natural disasters. They also explore fire-related terminology used in Australia and the difference between forest and grass fires. Students study the parts of Australia at greatest risk of bushfires and how the bushfire season varies from north to south. Finally, they have the opportunity to investigate one of the deadliest Australian bushfires using the internet.

Bushfires: Worksheet 1

Natural hazards and disasters

Introduction

Humans have always tried to control the environment. With the aid of technology people can move mountains, clear vast forests, change arid lands into fertile fields and alter the flow of rivers.

There are, however, elements of our surroundings that remain beyond our control. From time to time, nature reminds us of its power. Extreme events within natural environments can devastate whole communities, disrupt communications and cause economic hardship.

We cannot control these forces, but we can study the processes that cause them. This allows us to better predict extreme events and enables us to develop ways of better coping with their effects.

Natural disasters

As we go about our daily lives it is easy to forget that our natural environment contains threats to human life and property. These extreme and unusual events are called **natural hazards**. They include major disturbances in the atmosphere and on the earth's surface. Australia's most common natural hazards include storms, cyclones, floods, droughts and bushfires. When natural hazards affect people they are termed 'natural disasters'.

Defining bushfires

'Bushfire' is an Australian word used to describe any fire burning out of control. In other countries the term 'wildfire' is used to describe such an event.

In Australia, bushfires occur as forest fires (bushfires with the trees, undergrowth and litter on the forest floor as the main fuel) and grass fires (bushfires with grass as the main fuel). Large areas of Australia suffer from the threat of bushfires, especially in the eucalypt forest and woodlands of the south-east and south-west corners of the continent.

Disasters, such as those listed in Table 1, have placed bushfires high on our country's list of natural hazards.

Natural disasters	
Year	Number of people killed
1939	10 people killed
1975	10 people were killed and 650 homes destroyed
1983	10 people lost and over 1,300 homes destroyed
1997	10 people and 2,500 homes were destroyed
2009	10 people and more than 2,000 homes destroyed.

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3. What is another name for a 'bushfire'? _____

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_____ is fire.

_____ distribution of bushfires in _____

_____ the bushfire season _____ to north.

_____ 'natural disaster' mean.

_____ people.

_____ undertake research using _____ the selected bushfire _____ caused. Present your _____

Lesson 2: The conditions under which bushfires occur

Students study the conditions under which bushfires occur. Of particular interest is the fuel needed to sustain a blaze and the sources of ignition. Students also have an opportunity to examine the manner in which bushfires move across the landscape.

Bushfires: Worksheet 2:

The conditions under which bushfires occur

Fuel and ignition

For a bushfire to start there needs to be material that can burn (referred to as fuel), and a source of ignition:

- Fuel:** The fuel is the material that builds up in the bush over time as eucalypt trees shed their bark, branches and leaves. In the cooler months 'hazard reduction' burns are used to reduce the amount of fuel on the forest floor.
- Ignition:** Bushfires are a natural event in Australia and can be triggered by a lightning strike. They can also be lit deliberately (called arson) or be the result of an accident.

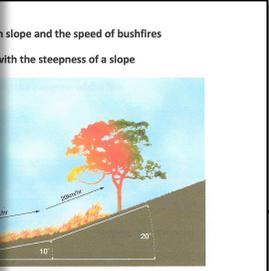
Factors affecting the spread of bushfires

The speed at which a bushfire spreads is determined by a number of factors. These are shown in Figure 1. A combination of these factors has resulted in 'blow-up days' when Australia's most severe bushfires burn out of control and spread rapidly.

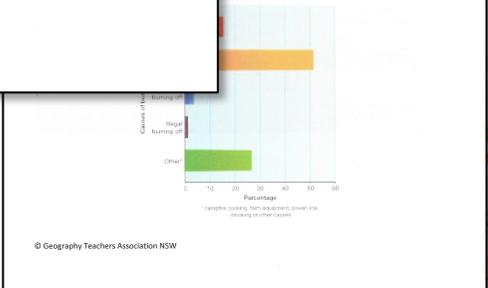
Figure 1: Factors affecting the spread of bushfires

<p>Fuel load: High fuel loads can result in bushfires that spread rapidly.</p>  <p>High fuel load</p>	<p>High temperatures: In Australia, summer temperatures reach the high 30s and can even exceed 40°C. High temperatures dry out forests and grasslands. This makes it easier to ignite.</p>  <p>High at (temperature)</p>
<p>Drought: Long periods of below-average rainfall dry out the fuel load.</p>  <p>Drought</p>	<p>Low humidity: Hot, dry air with humidity below 25 per cent creates dangerous bushfire conditions. Humidity is the amount of water vapour (or moisture) in the air.</p>  <p>Low humidity</p>
<p>Strong winds: Air provides the oxygen to keep fires burning. Stronger winds mean more oxygen and more intense fires. They fan the fire and accelerate the speed at which the fire spreads.</p>  <p>Strong winds</p>	<p>Terrain: Fires spread more quickly up hillsides and slopes.</p>  <p>Terrain</p>

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In Australia, lightning strikes are the main cause of bushfires. Lightning strikes are the main cause of bushfires. Lightning strikes are the main cause of bushfires. Lightning strikes are the main cause of bushfires.



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When we study bushfires?

What are the main causes of bushfire ignition in Australia? What do we study about bushfires?

What factors affect the ignition and spread of bushfires?

How does the speed of a fire increase on a slope of:

Questions:

- How many bushfires are caused by lightning strikes? _____
- How many are caused by 'other' causes? _____
- How many are caused by arson? _____

What is the main factor driving the progress of the bushfire.

7. Draw your own profile of a forest fire. Add the following labels.

- Wind direction
- Leaf litter and bark provides the fuel for the fire
- Burning embers are carried into the crown of the forest
- Oily vapour from eucalypt trees explodes

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Bushfire attack

Bushfires are a threat to life and property in a number of ways, these include:

- **The fire front.** The flames of the fire front (the leading edge of a blaze) ignite anything flammable with which it comes into contact. The most dangerous of all fire fronts is one that burns in the crowns, or tops, of trees (called a running crown fire). In eucalypt forests, bushfires can advance at alarming speeds through the upper layers of the forest. The tops of the trees often appear to explode as the fire roars through. On hot days the oils in eucalypt leaves pass into the atmosphere as a vapour. This vapour is quite flammable. The trees themselves do not explode; instead, it is the oil-rich vapour given off by the leaves that ignites in a fireball.

Figure 1: Fast moving fire front



The fire front itself never reaches where you are, spot fires ahead of the advancing blaze when hot embers fall are burning leaves, bark, and small pieces of wood from an area carried great distances by strong winds. Embers are also carried during a fire and for a long period after the main fire has passed.

Spot fires



Spot fires coming from a large fire can be extreme. It can melt metal tanks. It may last for only a few minutes as the fire burns but much longer when large logs, branches, grass and other objects continue to burn and smoulder.

Figure 3: Radiant heat can kill living things and damage property



Lesson 3: Bushfire attack

Students consider the nature of the threat bushfires pose to life and property. Students focus on the impacts of the fire-front, ember attack, radiant heat and wind in determining the severity of bushfires.

Spot fires often accompany a bushfire. They fan the fire by blowing embers to it, as well as carrying the embers of the fire over long distances.

Why are they especially dangerous?

How does an ember attack impact on the speed at which a bushfire moves?

Why is the radiant heat of bushfires dangerous?

How does radiant heat impact on the speed and spread of bushfires?

Fire Danger Ratings

The Bush Fire Danger Ratings are based on possible impacts of a fire, if one was to start.

Fire authorities base the rating on forecast conditions such as temperature, humidity, wind and the dryness of forests and grasslands.

The higher the fire danger rating, the more dangerous the conditions.



Fire Danger Rating	What you should do
LOW-MODERATE	<ul style="list-style-type: none"> For your survival, leaving early is the only option. Leave well before the fire starts (before it starts in the day - do not wait until it is too late). Leave well before the fire starts (before it starts in the day - do not wait until it is too late). Leave well before the fire starts (before it starts in the day - do not wait until it is too late).
MODERATE	<ul style="list-style-type: none"> Leaving early is the best option for your survival. Leave well before the fire starts (before it starts in the day - do not wait until it is too late). Leave well before the fire starts (before it starts in the day - do not wait until it is too late).
HIGH	<ul style="list-style-type: none"> Leaving early is the best option for your survival. Leave well before the fire starts (before it starts in the day - do not wait until it is too late). Leave well before the fire starts (before it starts in the day - do not wait until it is too late).
VERY HIGH	<ul style="list-style-type: none"> Leaving early is the best option for your survival. Leave well before the fire starts (before it starts in the day - do not wait until it is too late). Leave well before the fire starts (before it starts in the day - do not wait until it is too late).
CATASTROPHIC	<ul style="list-style-type: none"> Leaving early is the best option for your survival. Leave well before the fire starts (before it starts in the day - do not wait until it is too late). Leave well before the fire starts (before it starts in the day - do not wait until it is too late).

Bushfires: Worksheet 4

Aboriginal use of fire

Bushfires have always been part of the Australian natural environment. Many were started by lightning strikes. People ignited others, sometimes deliberately, sometimes by accident.

When Aboriginal people arrived in Australia, more than 50,000 years ago, they developed a way of life well suited to the environment in which they lived. They learned to manage the land in ways that met their needs. Their main tool was low-intensity fire.

Aboriginal people made frequent and planned use of fire to keep the country more open and easy to travel through, to promote the growth of fresh green grass and herbs that would attract animals, as a means of signaling and hunting, and for the more obvious purposes such as warmth and cooking.

Their patterns of burning were quite sophisticated. They deliberately used fire to clear out some heavy bush areas and burnt the areas around fire-sensitive vegetation communities as a form of protection for the plants they used for food.

Over time, the use of fire by Aboriginal people changed the Australian landscape. Fire sensitive species of plants died out while those able to cope with frequent burning (for example, the eucalypts) flourished. Scientists also believe that the use of fire contributed to the extinction of Australia's ancient megafauna – the giant marsupials that once roamed the land.

As a result of Aboriginal fire use practices, large intense bushfires, such as those that occur today, were uncommon.

Figure 1: Aboriginal Australians used fire to manage the land. Painting by Joseph Lycett, National Library of Australia.



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Lesson 4: Aboriginal use of fire Students focus on Aboriginal Australian's frequent and planned use of fire as a way of managing country. They also reflect on how the use of fire changed the landscape of Australia over time.

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original Australians be described as

on the Australian landscape over time?

place in the painting by Joseph Lycett?

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-Bushfires: Worksheet 7

Surviving Bushfires

It is not always the flames or the smoke that presents the greatest danger in a bushfire. The scorching radiant heat is often just as deadly. This invisible heat surrounds the flames and scorches plants, animals and people caught in its path.

Some of the best ways to increase your chances of survival if you are caught in the path of a rapidly approaching bushfire are listed in Figure 1.

Figure 1: Bushfire survival guide

Personal survival (indoors)

- Wear as much cotton or woollen clothing as possible; avoid wearing cloths made from synthetic-fibres.
- Crouch or lie down on the floor of a room that is away from the approaching fire; the air close to the ground contains less smoke.
- Take as many of the precautions shown in Figures 3 or 4 as is possible in the time available.
- The fire front and its radiant heat usually pass in two to four minutes. Even if the house is set alight, it is safer to stay indoors until the fire front has passed.

Personal survival (outdoors)

- Don't panic. Find the clearest or most open area. Move across-slope, away from the fire-front, then down-slope towards the rear of the main fire front. Don't try to outrun a fire, or go uphill, or through even low flames unless you can clearly see a safe area close by.
- If possible, lie down in a depression in the ground, a pond or dam, or cover yourself with loose earth or rocks. Thick, woollen clothing or a woollen blanket offers some protection from the radiant heat. DO NOT take shelter in a tank of water.
- If in a car, park by the roadside in the clearest area possible. Stay in the car, wind up the windows and put on the headlights. Crouch down and shelter under a rug, floor mat or anything similar that is available. See Figure 2.

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Lesson 7: Surviving bushfires

Students develop an awareness of the actions they can take to protect themselves, other people and property in a bushfire emergency. It includes a focus of the actions individuals can take as responsible citizens.

Shut all vents and turn the air conditioning off.

and tightly close windows and doors.



Direction of fire

Once the fire front has passed you need to get out of your vehicle. Move to burnt ground, but stay close to your vehicle and wait for help.

Drink water to prevent dehydration.

Curl into a ball and get down on the floor - below the window line. Cover up with woollen blankets if available.

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roadway and lights on. Car common in to poor

Turn the engine off.

Protecting your home – a suburban property

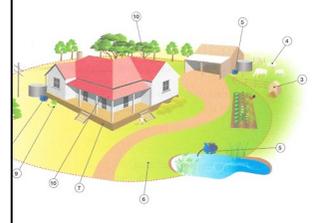
Steps you can take to prepare your home in the case of an bushfire. These are shown in Figures 3 and 4.



1. Prune tree branches away from power lines
2. Create a firebreak around the homestead and other farm buildings
3. Store firewood, petrol and gas well away from the house
4. Move livestock to a well grazed paddock
5. Install diesel powered pump to access water from farm dams, water tanks
6. Trim trees short and shrubs away from farm buildings
7. Clear underfloor spaces to prevent embers entering
8. Install gutter guards and keep gutters clear of leaf litter
9. Have hoses ready to put out spot fires
10. Lay down downpipes and fill gutters with water. Hose down the house and surrounding areas.
11. Maintain a minimum two-metre gap between your house and tree branches. Make sure that no trees overhang the house.
12. Turn on sprinklers. Remove all flammable substances, such as gas cylinders and paints, from around the house.
13. Make sure that everyone (including pets) is inside.
14. Put wet towels against spaces under doors. Close all windows, curtains, blinds and doors. Fill buckets, basins, baths and sinks with water to put out spot fires.
15. Install metal (rather than timber) fencing that shields the property from an advancing fire-front.
16. Store wood, gas, petrol and oil-based paints well clear of the house.
17. Keep ladders handy for roof access (inside and out).

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Protecting your home – a farm-based property



1. Prune tree branches away from power lines
2. Create a firebreak around the homestead and other farm buildings
3. Store firewood, petrol and gas well away from the house
4. Move livestock to a well grazed paddock
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all do to make sure that we act as responsible citizens in bushfires. These include:

- You obey all total fire bans. At all other times, never light a fire without supervision
- You have a bushfire emergency plan
- You are advised to do so by authorities
- Elderly and/or disabled neighbours are taken care of.

Campaigns

• It is critical to any bushfire emergency. During a bushfire emergency, fire drills are held on a regular basis. Letterbox drops of information are also used to keep people informed. Telephone numbers are activated and the media is used to provide the public with information.

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