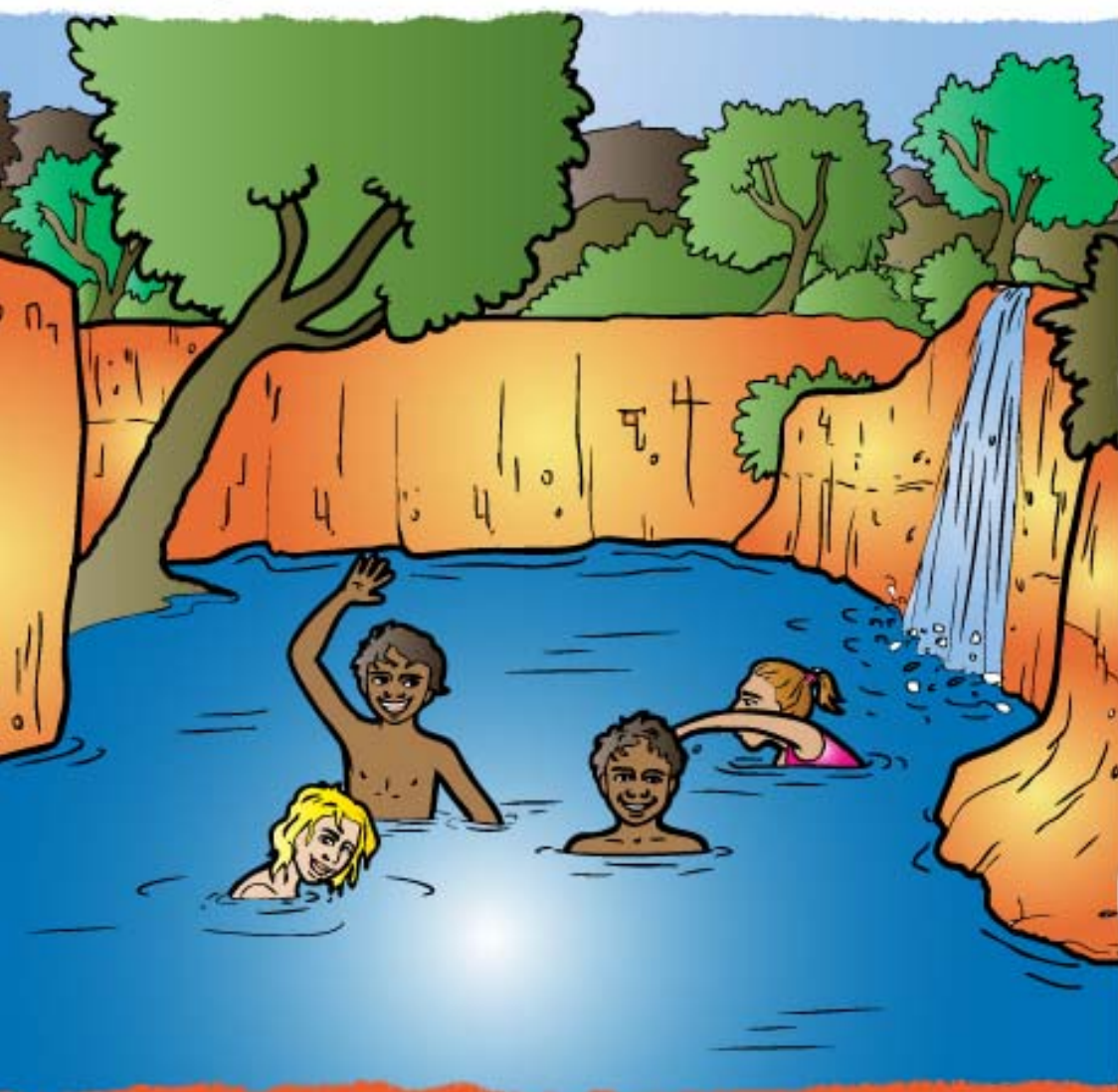


Year 4: The Environment Sustains Life

Aligned with the Australian National Curriculum



Section 1:
The Importance
Of The
Environment

Section 2:
Natural
Vegetation
And Climate

Section 3:
Sustainable
Management
Of Waste And
Natural
Resources



By Lisa Craig

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Teachers' Notes

Year 4: The Environment Sustains Life is part of the *Australian Geography Series* which comprises nine books in total. This book has been written specifically for students in Year 4, who are living in Australia and studying Geography. The activity book is divided into three sections: *The Importance Of The Environment*; *Natural Vegetation And Climate*; and *Sustainable Management Of Waste And Natural Resources*. Each section is closely linked to the V9 Australian National Curriculum.

The first section, *The Importance Of The Environment*, examines the relationship that Indigenous Australians have formed with the environment over time and the circumstances under which these relationships were formed. Students will also explore the distribution of Indigenous Australians before colonisation and how their ways of living were adapted to the resources of their Country and Place. Also included are activities which encourage students to recognise that places, for a variety of reasons, are significant to people and animals and should be preserved for future generations to enjoy.

The second section, *Natural Vegetation And Climate*, focuses on savannahs as a type of natural vegetation in Australia and South America and explores how climate affects this vegetation. The natural processes that shape the Earth's surface, in particular landforms also feature in this section together with an exploration of how the daily weather is determined by air pressure systems and fronts. Students will extend their understanding of place by developing mapping skills.

The third section, *Sustainable Management Of Waste And Natural Resources*, investigates the management of waste through the exploration of reducing, reusing, recycling and replacing. Students will investigate glass and understand that it is made from raw materials produced by the environment.

Year 4: The Environment Sustains Life is a teacher-friendly resource for 9 to 10 year olds studying Geography. The topics developed for each section are well supported by illustrations, graphic and photographic resources, which will help stimulate students' thinking about the way we live locally, nationally and globally. The strong research component built into tasks will invite students to dig deeper into geographical questions from their own and other people's points of view.

Curriculum Links

Knowledge and Understanding: Geography

Students learn about the importance of environments, inclusive of natural vegetation and water sources, to people and fauna in Australia and on another continent (AC9HS4K05)

- recognising the main types of vegetation, including forest, savannah, grassland, woodland and desert, and examining natural vegetation in Australia and another continent, such as Africa or South America
- exploring the vital role of vegetation in sustaining the environment by making oxygen, defending food-producing land from erosion, retaining rainfall, supplying habitats for animals, sheltering crops and livestock, offering shade for people, cooling urban areas and producing medicines, wood and fibre, as well as enhancing the appearance of places
- describing how people's connections to their environment can be aesthetic, emotional or spiritual
- investigating strategies to protect specific environments that provide habitats for animals; for example, planting vegetation that attracts birds

- recognising the importance of water to the environment and its role in sustaining the lives of people and animals

Students learn about sustainable use and management of renewable and non-renewable resources, including the custodial responsibility First Nations Australians have for Country/Place (AC9HS4K06)

- examining how some resources are used and managed sustainably or unsustainably; for example, conducting an audit of renewable and non-renewable resource use in the classroom, investigating recycling and waste disposal by the school and local government, reducing waste through initiatives such as "nude food" lunch boxes and recycled toilet paper, and exploring how renewable resources like timber are managed
- exploring how First Nations Australians developed sustainable ways of living through knowledge and practices (for example, rotational use and harvesting of resources; mutton-bird harvesting in Tasmania; the use of fire and the utilisation of vegetation endemic in the local area for food, shelter, medicine, tools and weapons, including gathering bush food in semi-arid rangelands) and recognising how these practices reflect custodial responsibilities, which are often shared through stories and songs

- ☐ Read the extract from a poem entitled “We Are Going,” by the Indigenous poet Oodgeroo Noonuccal (1920-1993). Answer the questions that follow.

We belong here, we are of the old ways.

We are the corroboree and the bora ground,

we are the old sacred ceremonies, the laws of the elders.

We are the wonder tales of the Dream Time, the tribal legends told.

We are the past, the hunts and the laughing games, the wandering camp fires.

We are the lightning-bolt over Gaphembah Hill

quick and terrible

and the Thunder after him, that loud fellow.

<http://www.poetrylibrary.edu.au/poets/noonuccal/we-are-going-0719054>

1. Highlight in the poem words or phrases that you know are connected to the Indigenous culture.
2. How does the poet tell you that places and Indigenous Australians share a special relationship? You should quote from the poem to support your answer.

3. How does the poet tell you that he has a spiritual connection with Australia?

4. How does the poet share with the reader that Indigenous Australians consider things in their natural environment to be like people? Quote to support your response.

Activity

Indigenous Ways Of Life And Resources

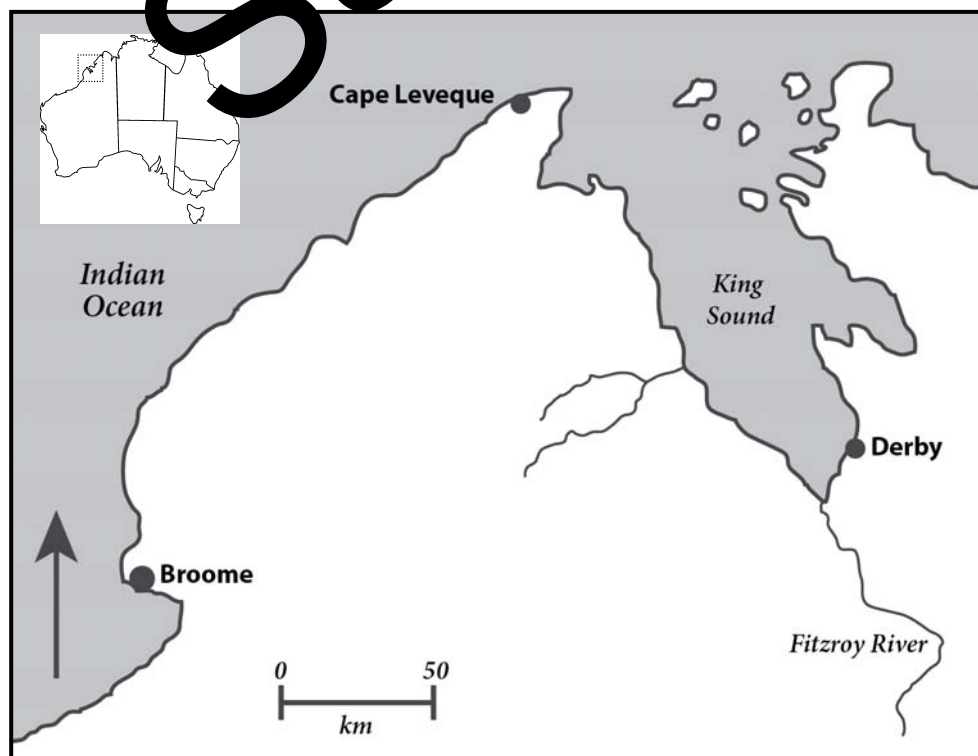
- ☐ Read the information on page 14 to help you to answer the questions and complete the task below.
1. Why did the first European settlers and Indigenous Australians have different ways of describing the seasons in Australia?

 2. Why was observing the changes in their environment so important for Indigenous Australians to survive?

 3. Look at the weather symbols on page 14. What types of weather are they connected to? Why do you think these symbols were chosen by Indigenous Australians of Central Australia?

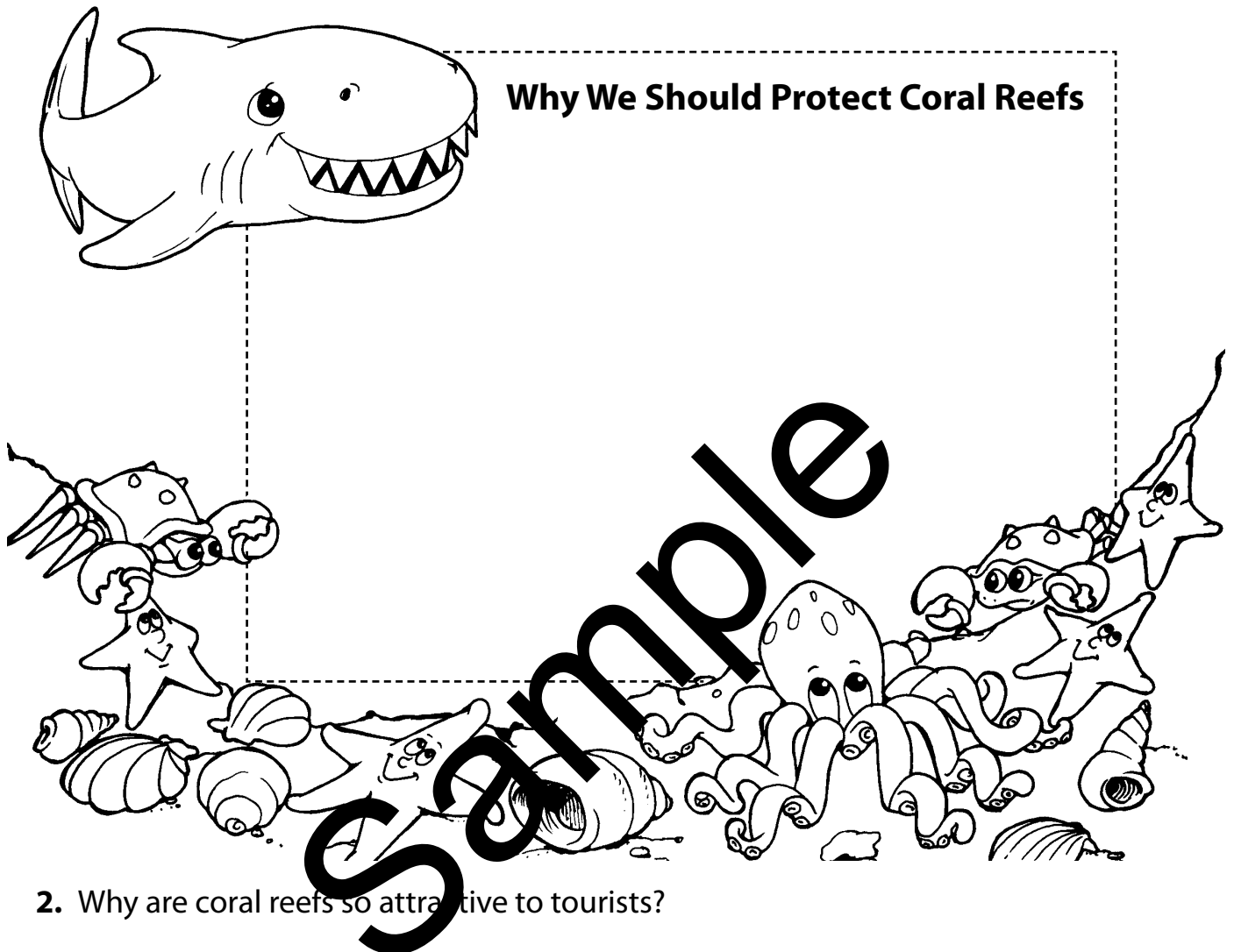
Six Seasons

4. Look at the map. It shows the area in which the Bardi, Njulinjul and Djaberadjabera people live on the Dampier Peninsula in Western Australia. Annotate the map with pictures of the types of activities that Indigenous Australians might carry out according to the seasons in their year.



- ☐ Read the information on page 20 to help you to complete the tasks and questions below.

1. Make a list of five good reasons why we should protect coral reefs.



2. Why are coral reefs so attractive to tourists?

3. What threats do coral reefs face nowadays?

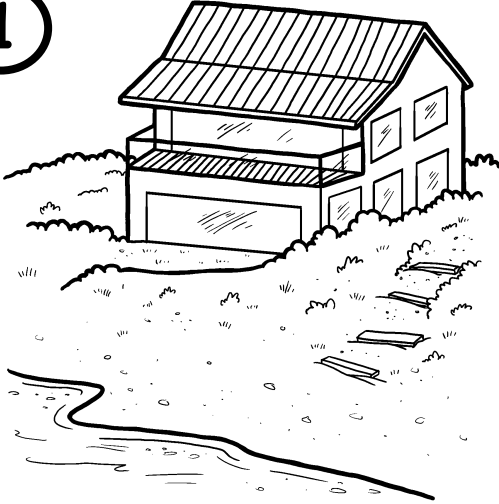
4. Would you like to volunteer to save a coral reef? What kind of activities would you choose to help out with?

Activity

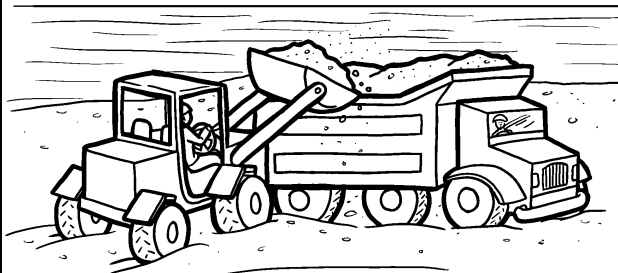
Protecting Sand Dunes 2

- ☐ Study the illustrations below which show possible threats to sand dunes. Briefly explain in the space underneath each illustration how sand dunes can be damaged or destroyed in certain situations.

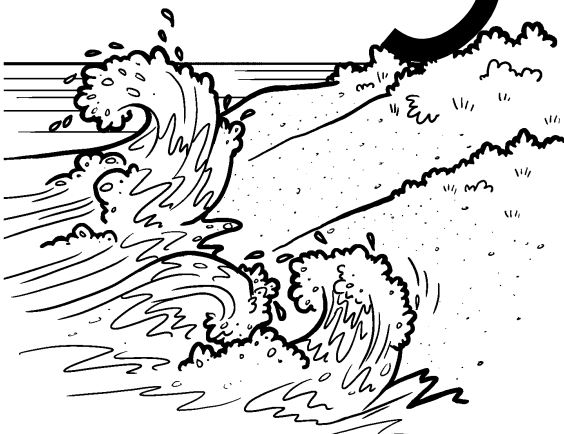
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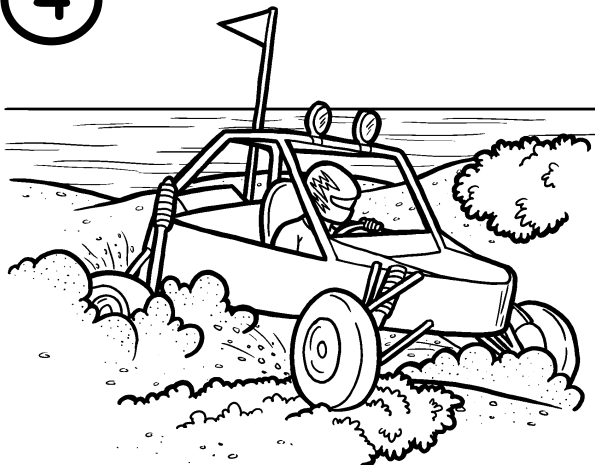
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3



4



- ☐ Use the information on page 31 and the photograph to answer the questions.



1. How is the vegetation in this image typical of Australia's tropical savannahs?

2. At which time of the year was this photograph taken? Give a reason for your answer.

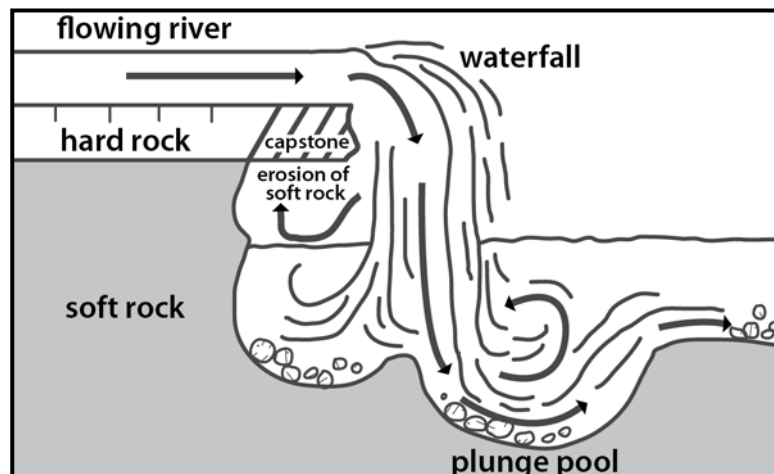
3. Why can't dense eucalyptus forests grow on the savannah's flat lands?

4. Explain how bushfires occur in the Top End.

5. Why would the wet season in Australia's tropical savannahs be a time of plenty for wildlife?



- ☐ Waterfalls are some of the most spectacular landforms made by fast-flowing rivers. Study the diagram right that shows how waterfalls are formed and answer the questions.



1. How is a plunge pool formed? _____
2. Where does the sediment (pebbles) in the plunge pool come from? _____
3. The water is eroding the soft rock under the capstone. What do you predict will eventually happen to the waterfall? _____
4. What would it be like swimming near this waterfall? Give evidence from the diagram to support your answer. _____

My Haiku

5. This is a photograph of the Hoptoun Falls in Victoria. In the space below, write a three line haiku poem based on the waterfall's beauty. Don't forget to give your haiku a title.

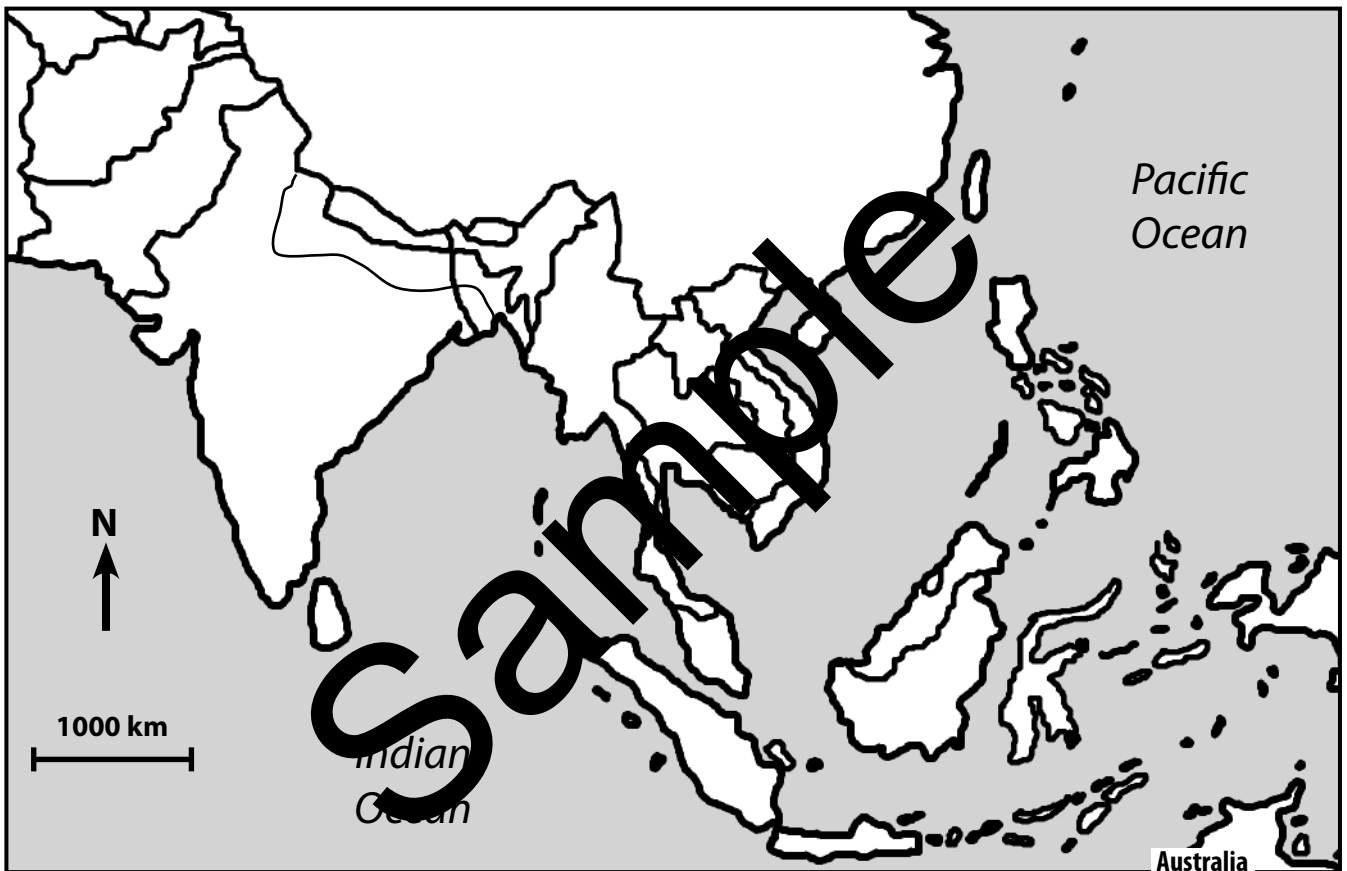


Photo by David Iliff License: CC-BY-SA 3.0
Wikimedia Commons

❑ Use your atlas and information on page 41 to answer the questions.

1. On the map of Southeast Asia below, label the following:

- The Arabian Sea and The Bay of Bengal;
- The Ganges River and The Himalayan Mountain Range;
- The Indian cities of New Delhi and Mumbai;
- China, Pakistan, Sri Lanka and Indonesia;
- Shade in India lightly.



2. Why would rivers be so important to the Indian population?

3. Why are New Delhi and Mumbai called "megacities"?

4. Estimate the distance from India to Australia in kilometres. _____ km.

5. How far would you travel from the north to the south of India? _____ km.

6. In which direction would you travel from Australia to India? _____

- ☐ Read the information on page 45 to help you to complete the questions below.

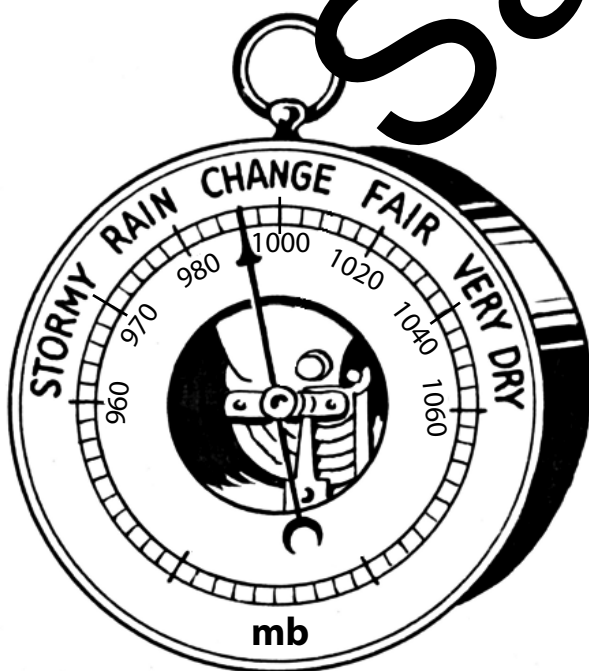
1. Work with a partner. List four occasions when you need to know the weather.

- _____
- _____
- _____
- _____

2. From your own knowledge, what information does a weather presenter give you in the nightly weather report?

3. How do meteorologists know in advance what the weather will be like for the next few days?

- ☐ Study the barometer below and answer the following questions.



4. If the barometric pressure for an area is 1040 mb, what will the weather be like?

5. If the barometric pressure reads 1000 mb, what has the weather been like for the last few days?

6. The barometer reads 950 mb. Would the area be experiencing a high or low pressure system?

- ❑ Think about the different things that you throw away at school each day. How can we dispose of this waste in a sustainable way?

Place the waste listed below into the correct bins. When you have finished, colour the bin lids.

List of Rubbish

- | | | |
|----------------------|---------------------|---------------------|
| • old exercise books | • tuna sandwich | • envelopes |
| • orange peel | • dry glue pots | • old tea towel |
| • cardboard box | • CD | • aerosol paint can |
| • leaves | • broken coffee mug | • newspaper |
| • fruit juice carton | • 2012 calendar | • can of cola |

Green

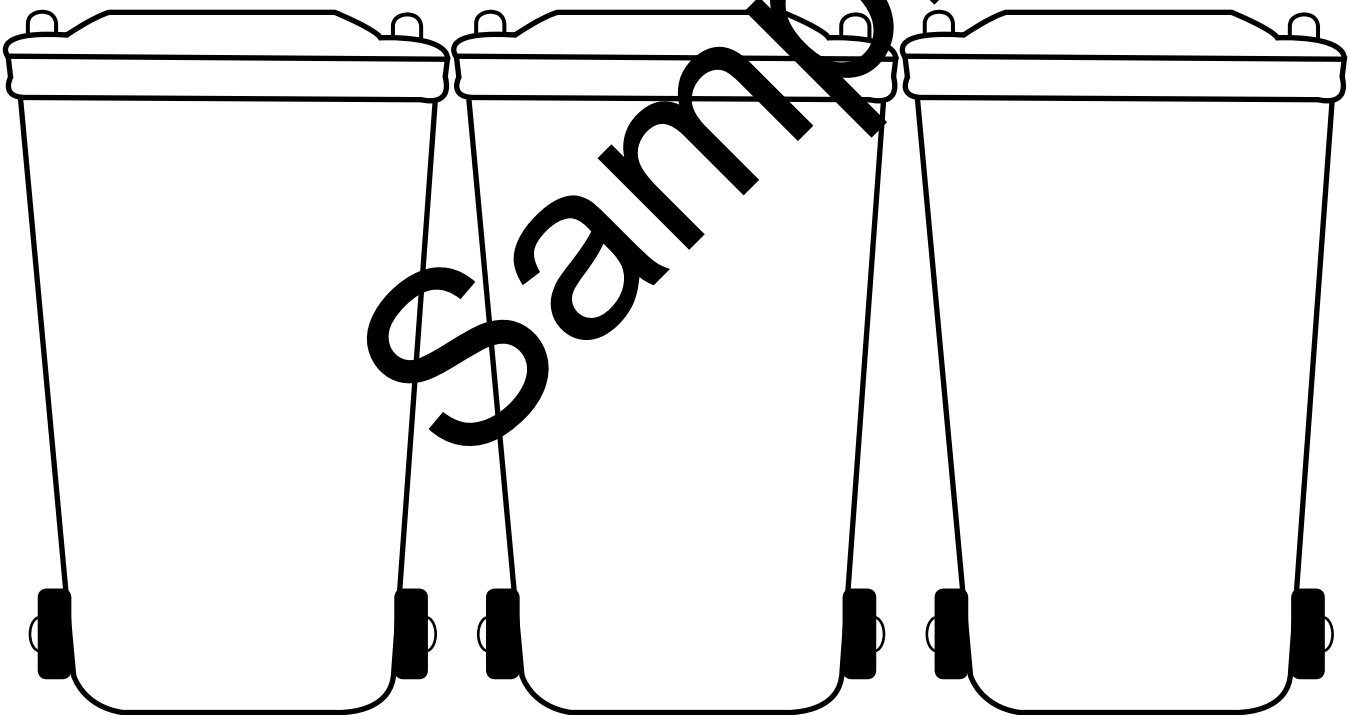
plant and food waste

Blue

general school waste

Yellow

waste that can be recycled



Find Out!

Why shouldn't we put plastic shopping bags in the recycling bin?

Activity

Resources Produced From The Environment

- ☐ Design a poster to make people aware that the environment provides us with resources. Think about: water, food, fibres, timber and metals.

