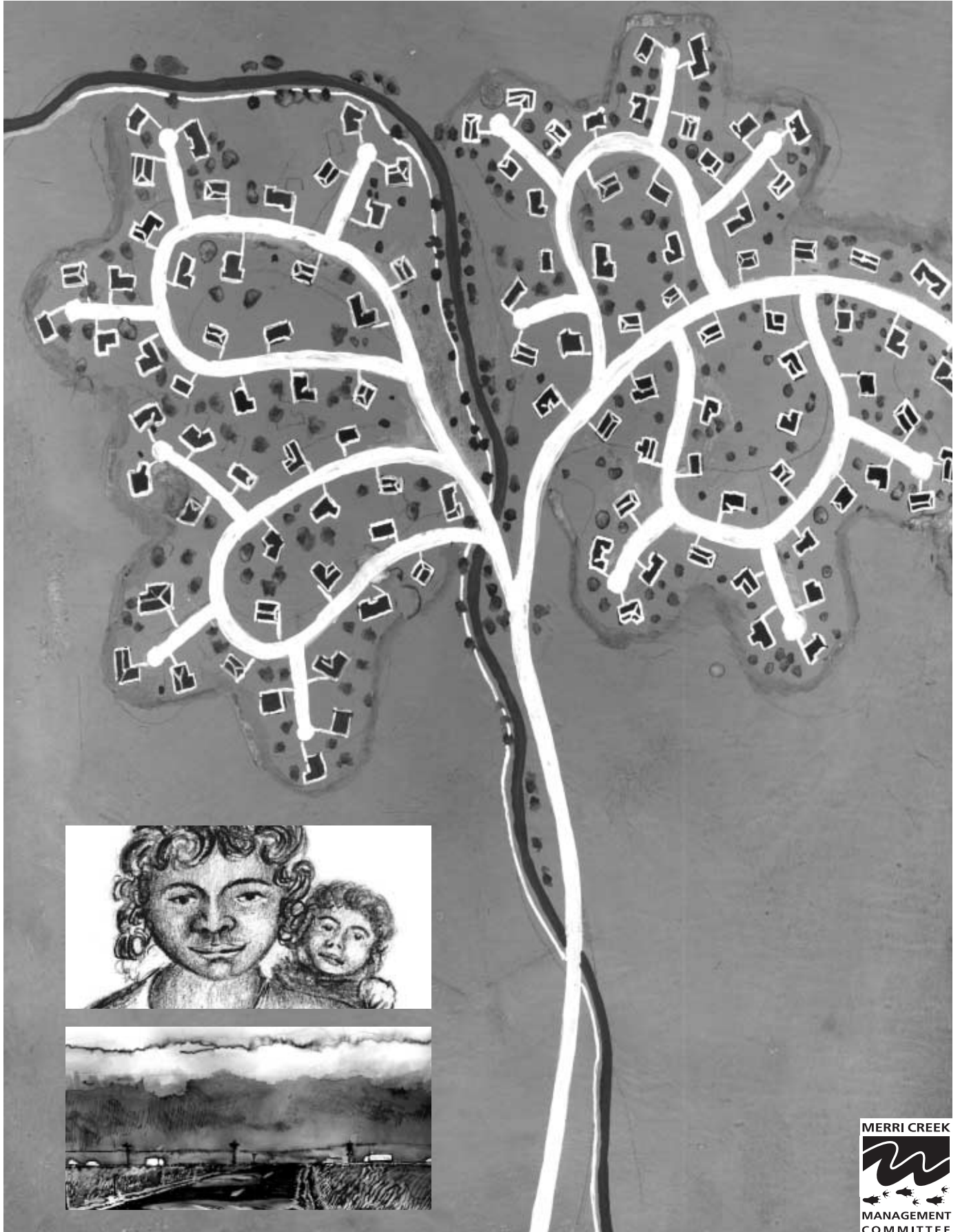


Putting Down Roots

*An Environmental Education Resource
for Adult English as a Second Language (ESL)*



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Acknowledgements



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State Library of Victoria

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Further Information

ESL books

Many People One Land

Air Quality today

Australia's Environment – how people have changed the environment

Further Reading

People of the Merri Merri –the Wurundjeri in Colonial Days

Melbourne Green Guide

Useful Websites

Indigenous Information

<http://www.arts.unimelb.edu.au/amu/ucr/student/1997/silva/> (Bush Foods)

<http://www.loreoftheland.com.au> (Reconciling Spirit and Place in Australia's History)

<http://www.yarrahealing.melb.catholic.edu.au> (Towards Reconciliation with Indigenous Australians)

Environmental Organisations

www.mcmc.org.au (Merri Creek Management Committee)

www.ata.org.au (Alternative Technology Association)

www.atcv.com.au (Australian Trust for Conservation Volunteers)

www.ceres.org.au (Centre for Education and Research in Environmental Studies CERES)

www.earthcharter.org (Earth Charter)

www.earthlink.com.au (Earthlink)

www.ecolivingsolutions.com.au (Ecoliving)

www.ecorecycle.vic.gov.au (Ecorecycle Victoria)

www.energy.com.au (Energy Australia)

www.greenhouse.gov.au (Greenhouse)

www.melbournewater.com.au (Melbourne Water)

www.parkweb.vic.gov.au (Parks Victoria)

www.savewater.com.au (Savewater)

<http://www.sea.vic.gov.au> (Watersmart)

www.wwf.org (World Wide Fund for Nature)

www.yvw.com.au (Yarra Valley Water)

TO BE FINALISED

Landscapes and Environments

When you think of the word 'landscape', what do you see?

Take a look out the window. Perhaps you see a fence, or a lemon tree. Maybe behind that is a building, or a billboard.

What is in the background? Perhaps you can see a park, an oval or a row of trees.

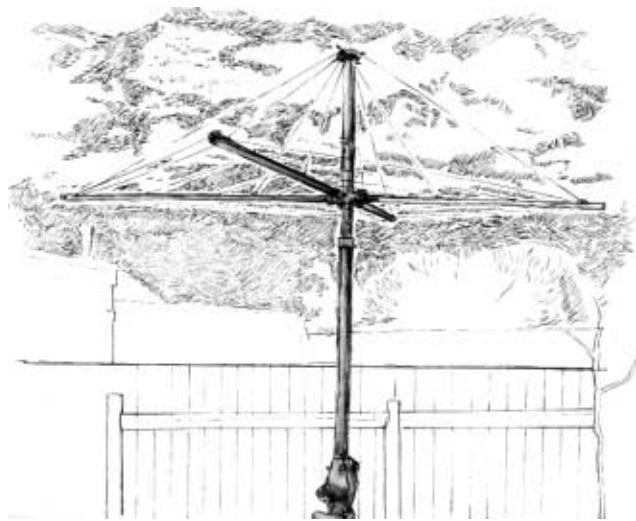
Can you see any hills or mountains?

Take a look at the sky. Is it clear or hazy? Is it full of clouds or just blue?

How does this landscape make you feel?

Take five minutes to think about a landscape or a place that has special memories for you. When you were younger, was there a special place in your life?

What did you like about that place?



Writing Task

Read these stories and then write a story about a place that you remember from your home country. What did it look like and what did you do there?

Is it a pleasant memory or a painful one?

Think about your first memory of the Australian landscape. Do you remember what you were thinking when you got off the plane or the boat?

What was your first impression? Did the landscape look beautiful? Did it look strange? Was it night or day?

What is your favourite place outside? Is it a garden? A football ground? A park, a river or the city streets? A swimming pool or a mountain lookout?

When you write, try to describe the place so other people can imagine it. Write about the sights, the smells, the sounds. If there are people in your story, write about them too.

When you have finished your stories, talk about them in groups. Tell the others what you wrote about.

Iraq

When I was young we lived on a farm in the north of Iraq. In winter we couldn't do much farming. It rained and snowed and it was too cold to plant anything. We had to look after the sheep because it was too cold to go out and they didn't have fresh grass to eat.

My dad had a horse and in spring he would ride the horse to the farm to plant wheat

and rice. In summer we would harvest the wheat and rice crops. During harvest time, we packed the horse and cart and brought the crops home about twenty times every day for a week.

We had a water-driven flour mill. Many people came from different villages to use the flour mill. It was hard work but it was enjoyable.

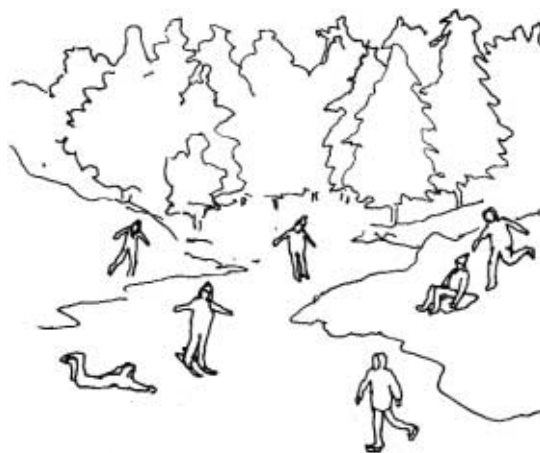
Yugoslavia

A nice memory is from my childhood. About one kilometre from my house was a valley. There was a small forest with tall trees. At the bottom of the valley was a creek. This place we called 'Dola' which means small valley.

In the springtime we went to Dola and made a wooden cubby house. From the creek we caught small frogs. In the summer time we went to Dola and stole grapes and cherries. The stolen fruit tasted sweeter than the fruit from our own gardens.

In the wintertime we went to Dola to ski or play ice hockey on the frozen creek (one part of the creek was about 20 metres wide). We used to put straw into a big tough plastic bag and hold the end of the bag closed. We used this bag as a toboggan slide to slide down the snow-covered hill. The toboggan went so fast that it shot across the creek and up the side of another small hill. Sometimes we ended up all wet in the creek. We got cold and wet but we never got sick. I was lucky that my parents let me go free.

Today, I always remember my Dola where I spent my childhood, every day in the fresh air from morning to evening. Our parents



didn't know where we were and what time we would come back home.

I wish that my children had some place like this so that they could be in the fresh air every day. But here in Melbourne there is a different way of living. It means my children must be inside some closed building except when I have time to take them to a park.

Only once my children have played in the front garden of our house. I was in the house but a lady came to my door and said, "Your children are not allowed to be alone outside of the house". Many people said this is an Australian law. I'm not sure if this is the law here. I personally don't like it.

Vietnam

I grew up in a big city and I lived with my parents. Every year my sister and I used to go to visit my brother in the countryside and we lived there for a month. My brother lived next to the Cuu Long River.

Every morning at about 3 or 4 o'clock while we were still in bed, I used to hear a lot of sounds made by the fishermen's canoes and boats, and the sound of people talking to each other was very interesting.



When I finished my holidays, I didn't hear the sounds of the canoes and boats in the morning any more and I felt that I lost something in my life.

Somalia

I grew up in the bush of Somalia. There wasn't a river or any running water near our home. We had to wait for rain. Sometimes it didn't rain for three months or more.

In the dry season, when we wanted water we had to walk 30 kilometres to get it. We used to collect the water by camel or donkey.

When it rained, the grass grew quickly and the trees were green. My father, myself and my brothers would plant crops. While they were growing, my brothers and I went to the Islamic school to learn the Koran and Arabic. In 1976, the war between Somalia and Ethiopia started, so we moved from the bush to the town and our life changed.

China

I grew up in the countryside. I remember near my home there was a big mountain. It was very high and was called 'Stone Mountain'.

The villagers used to build their houses with stone from this mountain. They took the stone away and over the years the mountain became lower and lower. So now there are many caves around the mountain.

Young couples would walk along the mountain in the evening, looking for a quiet place to chat or sing or fall in love. Now the name of the mountain has changed to 'Love Mountain'.

The mountains in Australia remind me of my home and my youth. One day I want to visit Love Mountain again.



Kurdistan

I lived in Kurkuk City which was rich in petrol. The Khasa River was fifteen minutes from my house. It was a small river and I used to go over there for fun, to play and sometimes to fish. My mum and my dad always told me not to go to the river because it was dangerous, but I didn't listen to them because I loved the river so much.

One day I went to the river in the morning to fish. I caught some very small fish and put them in a bottle. After a few hours I went back. I met my father and my older brother in the middle of the road, but they were angry because they were worried about me, and my dad dropped the bottle and killed the fish.

Somalia

When I was ten, I went with my family to a park beside my village. When we arrived there we saw a beautiful river. It looked very refreshing. The river was wide and the trees were tall and green. I felt happy. But when we approached the river, I was surprised that

it was dirty and it smelt bad. People had left behind cans and bottles and other rubbish.

But my cousin and I still played in the river and we had a big water fight there with some boys.

China

When I was young, I remember near my house there was a well, it was a small well.

In the summer, we pulled up the water from the well, then put it in a watermelon. After half an hour we ate it, it was very cool.

Bosnia

I lived in Bosnia. Opposite my house there was a creek called 'White Creek'. It was a very clear and fresh creek. On both banks of the creek were flowers and willow trees.

On a windy day, the branches of the willows would touch the water and make a beautiful sound.

On that creek I met my first boyfriend. It was a very exciting moment in my life. From that time on, we spent more time by the creek. We would look forward to sitting there and laughing on Saturday or Sunday evenings.

China

When I think about growing up in China, I think about our garden and I remember the peach tree in our yard. It was very big and it began with my brother. One day my brother ate a lot of peaches and put the seeds in the mud in our yard. After a few years a seed sprouted and a tree slowly grew tall. My father, who loves gardens, looked after it well, so every summer the tree had plenty of fruit. We would watch all the fruit change colour from green to yellow. When it was yellow, we would eat it. There was a lot and we could eat as much as we wanted.

One day, there was only some fruit left on the top of the tree and because I was small I could not get it. But I really wanted it. So I went back inside and took a chair. When I stood up on

Every Thursday afternoon, we used the water to clean the street.

We had a special place under a willow where we would sit and talk like lovesick people.

At night we would lie under the willow to look at the sky, and count the stars. On these weekends I would spend more than four hours with my boyfriend because we were head over heels in love.

We were daydreaming about our marriage but it was in vain because we were still children. On the willow tree we drew two hearts and under the hearts we wrote our names and the dates we met.



the chair, I fell down hard. That's why I remember my peach tree. I will always remember the feeling of wanting something but not being able to get it.

Vietnam

I lived in Danang City, the biggest city in central Vietnam. The Han River was two blocks from my house and I would go there at night to relax. Sometimes I would walk a little or watch people fishing in a little boat or from the river bank. There were a

lot of small businesses along the river, such as renting deck chairs or selling refreshments like fresh lemon juice, coconut juice or sugar cane juice. There was lots of food too. It was a wonderful place for nightlife!

Greece

When we were young, we would let our house in the village and move into the fields and hills to look after the animals and make cheese. There was a spring a few hundred yards away that we fetched drinking water from in a water vase. For washing, we would go down to the spring and fill a big tub. We would heat the tub over a fire and wash ourselves. Other farmers would employ my sister and me to help with picking olives, or

to skin dogfish which have very sharp spikes. I would get half the fish as payment. The houses then had neither water nor electricity, only a few kerosene or oil lamps.

My sister still talks about those peaceful days because they were quiet and you could go out at night without fear. But they weren't peaceful because life was hard and it was always a struggle.

Memories of the Merri Creek in the Old Days

We used to swim in the Merri Creek. It was filthy! There were dead dogs and everything in it!... We used to go yabbing. There were thousands of yabbies down there... We used to take an old kerosene tin down there and

light a fire and boil the water and cook the yabbies and eat them. They lived in filth and we cooked them in filth. It's a wonder we didn't die. We loved the creek...

Ken Pearson



The Chinese had huge watering cans strung across their shoulders. They never stopped all day. They would stoop first to one side then to the other, dropping their metal buckets in the water, filling each one up, then taking them back into their garden, where they tipped the water into a pond. From there they used watering cans to water the plants.

William Landel

Somalia – a Lost Paradise

A Somali's view of his own country.

Before 1991, Somalia was a country renowned for environmental protection and recognized as one of the best countries in East Africa that had a clear policy and strong legislation regarding environmental issues. In fact, environmental protection was given the highest priority in Somali society because it was included in our constitution. Unfortunately, the prospect of keeping our environment beautiful was dashed off with the collapse of the Somali government in 1991, which caused years of ongoing civil war. After thirteen years of devastation and destruction, Somalia has become known as a 'no man's land' for of several reasons:

Firstly, different Somali warlords and international mafia have signed a lucrative contract in which the mafia supply the warlords with weapons, money and overseas scholarships for their children, and offer them and their families a free medical checkup once a year in overseas countries. In return the mafia is allowed access to Somali deep sea waters and its coastal ports, as well as to the mainland for various reasons. These include exploitative fishing practices and the dumping of nuclear waste contracted by developed countries.

In fact, in the past ten years, the international mafia imported large quantities of nuclear waste to the country by cargo plane and buried it in huge holes in the mainland.

At the end of the last century, the local population in different parts of Somalia discovered sealed containers washed ashore, in particular in the southern and central regions along the coast of the Indian Ocean and the Red Sea. At the same time, the local nomadic population had found huge holes filled with an unknown substance in the desert. It was widely believed that this substance was nuclear waste. This was discovered during the windy monsoon season when the sand is moved from place to place.

Secondly, because there is no central government and few jobs, the local population is using every means to survive and find jobs to support their families. Legislation introduced by the Somali government in the 1970's urged citizens to protect and revitalise the country's environment by planting trees twice a year. This was designed to protect farmlands from sand advancing from the coastal areas.

This campaign was very successful because within two years, the local population, with the help of the central government, the

United Nations, the World Food Program and environmental groups, had planted trees over a large area. Also, it allayed the anxieties of local farmers regarding sand invasion and employed the local population.

Unfortunately, a recent report from the UN and an international non-government organisation confirms that in the whole country, especially in the southern regions, all the trees have been cut and burned to make charcoal, which is one of the major sources of income in Somalia.

A French journalist, visiting in the 1970s, described the country as a shelter for native plants and diverse animal species. The same journalist visited the country again in April 2002. He said when the plane landed on a little runway south of Mogadishu, the Somali capital, he couldn't believe it was Somalia and he asked the pilot if they were in transit or if there was something wrong with the plane. The pilot laughed at him and said that it was Mogadishu, their destination.

On his second day, he chartered a little Cessna and flew over most of the country, especially the south. Finally, he wrote an interesting article, full of sadness, in which he described the country as a nightmare and a human tragedy because of the destruction of nature.

The third reason why Somalia is regarded as a no man's land is the most drastic event in Somali history which happened when the militia had taken the farming land from the local population by force, and has been using it ever since to produce drugs instead of crops. The drugs are the major export product for the Somali warlords and their main markets are neighbouring countries and to some extent domestic users. In addition, this new way of life contributed to the lawlessness and ongoing destruction of the country's environment. There are also strong signs of extinction of certain species of animals and trees because of indiscriminate cutting and killing of those species. In addition, some unfamiliar diseases are spreading widely in Somali society and have become common illnesses, such as blindness, skin disease, tuberculosis and genetic deformation or degeneration of babies.

All these unfortunate events are solely the consequence of the destruction of the environment and are occurring in a country that was once an example of environmental protection.

Nur Osman

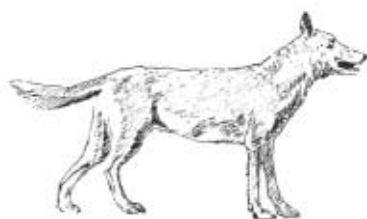


The Wurundjeri-willam

A long time before trucks and buses **thundered** along the highway north of Melbourne, there were different sounds. There were no cars, no roads, no sounds of houses being built. There were no electricity **pylons**, no jet aeroplanes flying **overhead**.

The only sounds were made by nature. There was the **rustling** sound of leaves, the singing of birds, and in the evening, the croak of frogs in the wet grass and creeks.

The night sky was filled with **shining** stars. The ground was also dark, but there were a



Dingo

few **tiny** lights here. These lights were campfires burning. Around these fires were the sounds of voices laughing, talking or singing. There was

the smell of meat cooking. Dingoes barked and waited for **scraps** of food.

The people sitting around the campfires called themselves Wurundjeri-willam. They were a community of Aboriginal people. These people had been living in this area for perhaps 35,000 years.

'Wurun' means 'white gum tree' and 'jeri' means a **grub**. 'Willam' means 'place'. The Wurundjeri-willam lived around the area that is now the northern suburbs of Melbourne. In the summer months they lived around the Merri Creek.



Fishing on the Merri Creek
Melbourne Album, La Trobe Picture Collection, State Library of Victoria

Merri Merri is a Wurundjeri-willam word that means 'very rocky'. The creek was very important, because it provided them with food and fresh water. The many trees along the **bank** of the creek provided them with plenty of wood, which they used for many things, such as fire, tools and shelter. The area where the creek **enters** the Yarra River was a meeting place for different communities and an important **landmark**.

The Wurundjeri-willam were one of many communities who spoke the 'Woiworung' language. Woiworung speakers lived in an area about 60 kilometres by 250 kilometres. This area was roughly a **rectangle** from the Werribee River in the west, to Mt Baw-Baw in the east. From Port Melbourne in the south, it went to Kilmore in the north. (look at the map over the page).

Comprehension Questions

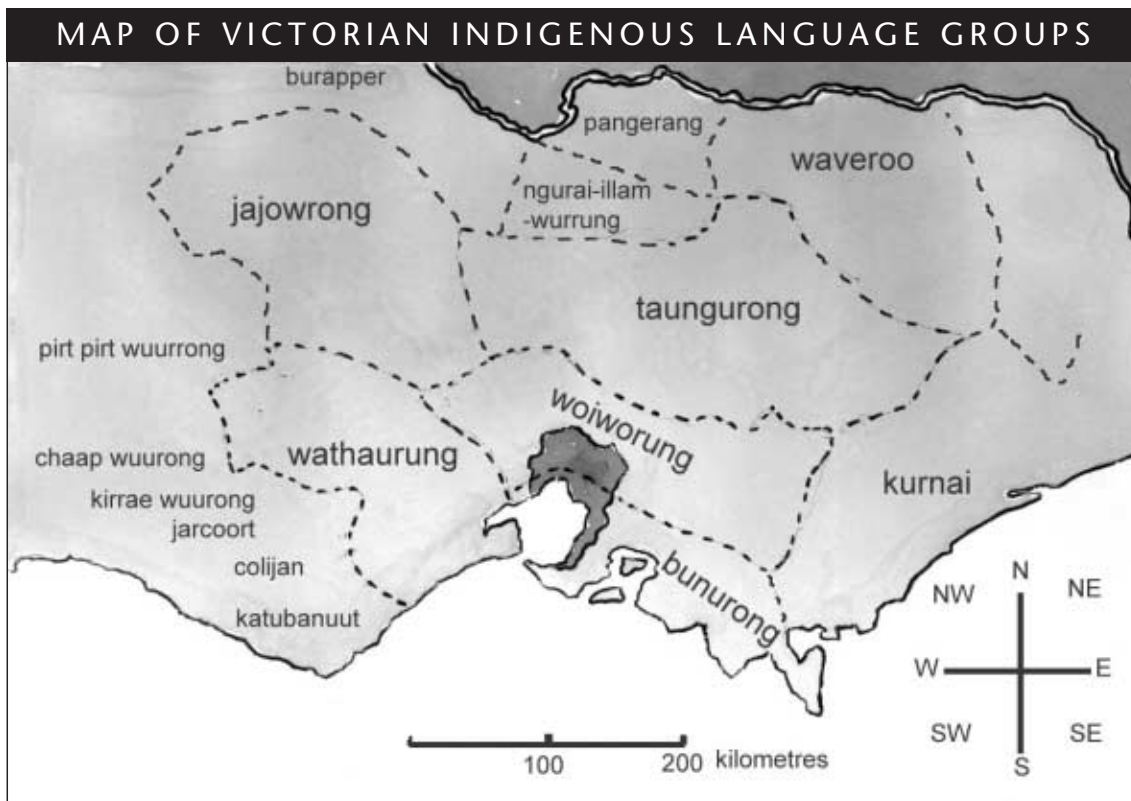
What did the dogs wait for? _____

Where did the Wurundjeri-willam live in summer? _____

What did they use the trees for? _____

Match the words on the left with the words on the right that have a similar meaning

bank	a place that is easy to see
thundered	pieces
pylons	above
overhead	protection
tiny	side of a river
scraps	rumbled
landmark	electricity towers
shelter	very small



Map questions

What language did the people on the west side of the Wurundjeri-willam speak?

What language was spoken south of Woiworung land? _____

What language was spoken north-east of the Taungurong? _____

What language did the people who lived around Port Phillip Bay speak?

How far was it from the north-west side of Bunurong land to the south-east side?

Which river was the northern border of Waveroo land?

Hunting

How did the Wurundjeri-willam get food?

Before you read...

What do you think these phrases mean?

to know something 'like the back of your hand'

'to creep up on' something

'in the blink of an eye'



Aborigine from the Yarra Valley 1886
Fred Kruger Photographer La Trobe Picture Collection
State Library of Victoria

Traditionally, the Wurundjeri-willam were hunters and gatherers. They usually did not stay very long in the same place. During the year, they moved around on a regular route to places they knew would provide food and **resources**. In this way, they also **avoided** the heat in summer and the cold in winter. Apart from the dingo, the Wurundjeri-willam didn't keep animals with them. They did not have **domestic** animals like goats, camels, cows or sheep.

Their great knowledge of the environment meant they were very good **hunters** and **gatherers**.

They knew how to see things in the bush that white people didn't see. They knew every plant and every animal. They knew the bush '**like the back of their hand**'. They were also excellent stalkers – they knew how **to creep up on** every animal.

It was traditional for the women to gather food-plants and hunt small animals and for the men to hunt larger animals.

Put these words and phrases into the correct sentences

resources, to creep up on, domestic, a regular route, like the back of her hand, avoids

She always drives to work the same way. It is _____

Oil is one of the world's most valuable _____

He always _____ the morning rush hour

A chicken is a _____ animal

She knows her neighbourhood _____

A cat likes _____ birds

How did they catch animals?

Read the text overleaf and answer these questions

Was it easy to catch a goanna in the mornings ? _____

Where did the possums hide ? _____

What did the children love to do ? _____

What did the Wurundjeri-willam mimic ? _____

Hunters began to learn from a very young age. They learnt about where the animals lived. They learnt about how they moved. They learnt about which animals were quick, which were slow and which were dangerous. They learnt about animal tracks and **droppings**. The adults told the children all about these animals in traditional stories. They also learnt how to **mimic** the sounds that the animals made.



Echidna
Brian Bainbridge

They learnt about the **echidna**. They knew it couldn't see very well but it had a very good nose. If you wanted to find an echidna, you had to stay **upwind** of it. It knew how to hide by burying itself in the ground with only its **spines sticking up**.

The Wurundjeri-willam children, like all children, loved to climb trees. When they were older, they would use these **skills** to hunt for possums in the trees at night. Sometimes possums hid inside hollow trees and the hunters used firesticks to **smoke them out**.

They learnt about **reptiles**. Even if the children were too young to hunt, they knew where to find snakes. They knew that snakes came out on warm days to **sunbake** on the rocks and liked to live near water. They also knew that a snake could kill you.

They knew that the **goanna** was very slow in the cold mornings. But the



Eel

Female eels can live to 35 years old and they hold over 3 million eggs

goanna was very fast when it was warm, and it could run up a tree **in the blink of an eye**. The children also knew that the goanna had very **sharp claws** and if it thought that you were a tree, it might run up you and **cut** your skin badly.



Goanna

The kangaroo and emu also had sharp claws and they could be dangerous if you weren't careful. Sometimes, the adults would catch an emu with a **noose** on a long stick. But the Wurundjeri-willam were not afraid of any animals because they knew exactly how to **approach** them and kill them.

The Wurundjeri-willam also hunted birds and fish. The 'wonguim' (**boomerang**) was thrown into **flocks** of birds. If the hunter missed, the wonguim would return to him and he could try again.



Boomerangs
The Aborigines of Victoria R.B Smyth 1878,
John Ferres Government Printer Melbourne

The deep pools of the Merri Creek were the home of **eels** and fish. The Wurundjeri willam used **spears** with barbs made from emu claws or kangaroo teeth and **nets** made from **bark string** to catch eels and fish. They would sometimes kill the eel by **biting** its head.

There was a small lake on the Yarra river they called 'Bolin Bolin' where they could find a lot of eels. (This place is near the suburb 'Bulleen').



Spears The Aborigines of Victoria R.B Smyth 1878,
John Ferres Government Printer Melbourne

Look at the way the following verbs in the story are used in the sentences in column A (cut, approach, miss, mimic, bury, hide, bite)

Match the phrases in column A with the rest of the sentence in column B

A

1. You should *approach*

2. She *missed* the rabbit

3. If you *cut* an onion

4. Don't *mimic* your friends

5. If you *bury* a seed

6. Animals often *hide*

B

if they are scared

snakes very carefully

when she fired the gun

it will become a plant

you might start to cry

or they might get angry

Gathering

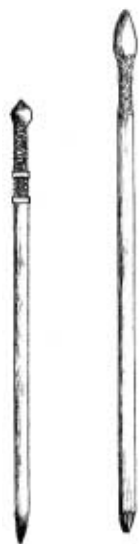
Who provided most of the food for the Wurundjeri-willam?

Before you read...

Where do you get most of your food?

Who provides most of the food in your family?

Do you grow your own vegetables?



Kanaan
Isabel Ellender,
People of the
Merri Merri

While the men were out hunting, the women gathered food. Women collected 90% of the food for their families. All the Wurundjeri-willam women carried a long stick called a 'kanaan'. This was a digging stick. The kanaan was heated in the fire to make it harder. They used the kanaan to dig for 'Murnong'. Murnong is a plant. It has a root like a small yam or potato. It used to grow all over the grasslands of Victoria and New South Wales, but now it is very difficult to find because it has been eaten by farm animals. Murnong were a very important part of Wurundjeri-willam diet. The women also collected the root of the Water Ribbon plant to eat. Water Ribbon is still easy to find in the Merri Creek. It has long, thin leaves.

Another important plant was the 'Kangaroo Apple' which has **edible** fruit and **seeds**. Some plant seeds were collected by the women to make flour. The seeds were collected, then **pounded** with a **grinding stone**, then **sifted** and mixed with water to form a rough 'cake' mixture.

The Black Wattle tree provided them with **resin**. They ate the resin **raw**, or **dissolved** it in water to make a drink. It was sometimes **stored**, so families could eat it later if they couldn't find much food. When it was mixed with **ash** from the fire it made a good **glue**.

The women also **waded** in the creek, looking for **yabbies**, **frogs** and **shellfish**. They climbed trees to collect eggs from birds' nests. Insects were also eaten. Large ants and grubs were eaten raw or **roasted** in the fire.



BLACKWOOD

A small tree or large shrub which casts a dense shade. Creamy coloured blossom is produced in winter. The plant provided a medicinal lotion and a fish poison for the Wurundjeri. The seeds are eaten by birds and insects.



KANGAROO APPLE

The large ocal berries of this plant are edible when soft and orange and are a rich source of vitamin C. Fruit is poisonous when green and eaten in large quantities.



SPINT-HEADED MAT RUSH

A perennial plant whose leaves were used by indigenous people for making of mats and baskets.



COMMON TUSsock GRASS

The leaves of this plant were used by the Wurundjeri for the making of strings for nets, bags, mats and baskets.



WATER RIBBON

An aquatic plant with underground tubers that were a source of food for the Wurundjeri.



RIVER REDGUM

After boiling, the dark inner bark of this tree releases a gum with antiseptic properties which the Wurundjeri used for treatment of burns and sores.

Put these words in the correct places.

wade, store (verb), dissolves, raw, pound (verb), mixture, resin, diet, roasted, edible

1. A bad _____ is very unhealthy.
2. _____ is usually very sticky.
3. Most fruit is _____ but some can make you sick
4. Sugar _____ easily in water
5. Petrol and air is a dangerous _____
6. To break ice, you sometimes have to _____ it.
7. Japanese people sometimes eat _____ fish.
8. You should _____ meat in the fridge
9. Children like to _____ in the water at the beach.
10. _____ peanuts are delicious

Comprehension Questions

What did the women use a 'kanaan' for? _____

Why did they heat it in the fire? _____

Why is it difficult to find Murnong today? _____

What did they mix with resin to make glue? _____

What part of the plant was used to make flour? _____

A simple recipe. Look at the example then write a simple recipe that you know.

MOTH DAMPER

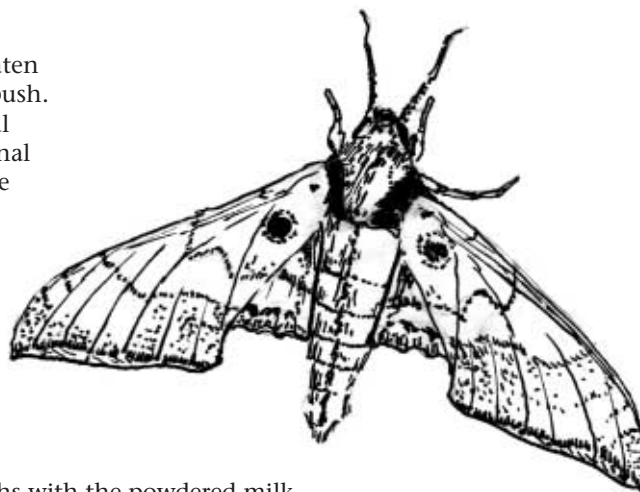
Damper is a simple kind of bread that was eaten by early European settlers in the Australian bush. Moths were gathered and eaten by Aboriginal people. So this recipe is a mixture of traditional Aboriginal food and an old 'Australian' recipe

Ingredients

A generous handful of moths
1 cup plain flour
1 cup self-raising flour
1 cup powdered milk
1/4 tsp. baking powder
water

Method

Use a mortar and pestle to pound up the moths with the powdered milk. Mix in the other dry ingredients. Add enough water to make a stiff dough and shape the dough into a ball. Flatten the ball to a height of 2.5 centimetres. Put a little bit of flour on the ball and cook it in hot ashes or a domestic oven until cooked. Serve hot.



(Recipe from 'A Taste of the Bush' – University of Melbourne Faculty of Arts online)

Using Animals

Did they use animals for other things?

Before you read...

Apart from food, what are some of the ways that animal products are used in our society?

When you eat a chicken you throw away the bones and feathers. The Wurundjeri-willam didn't throw much away from the animals they caught.



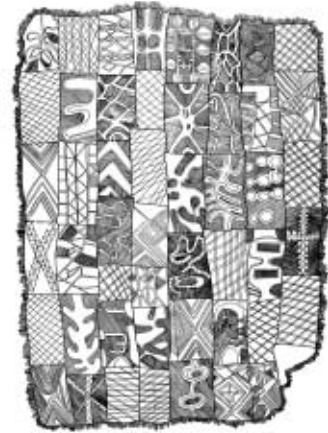
Bone implements
The Aborigines of Victoria R.B Smyth 1878,
John Ferres Government Printer Melbourne

After they ate a Kangaroo, they used the bones to make **pins**. They used **sinew** to make **thread** for sewing. The skin was used to make a container to store water when the families were in dry country. The emu and lyrebird gave them

beautiful feathers to use in ceremonies. They also **rubbed** the emu fat all over their bodies to keep them warm in winter.

Possums were also used to keep them warm. They used the skin to make **cloaks**. First the possum skins were **removed** from the body

using a **shellfish** to cut the skin. Then the skins were sewn together with sinew. One cloak was made from about 15–20 possum skins. Afterwards, the skin was rubbed with fat to make it warm and **waterproof**. Then lines were cut into the skin for **decoration** and it was **rubbed** with red ochre to make the designs more **visible**. The cloak could be **worn** with the skin on the outside and the fur on the inside, or with the **fur** on the outside to keep off the rain. These cloaks were very valuable, like a wedding dress or a fur coat is today.



Possum-skin rug
Records of the South Australian Museum

Put the words in the box into the correct category. The first one is done for you.

sinew, lyrebird, squeeze, press, pins, jumper, material, **emu**, possum, kangaroo, cloak, skin, **rub**, stretch, bone, needles, **skirt**, beanie, fur, **thread**

Animal products	Sewing	Animals	Using your hands	Clothes
sinew	thread	emu	rub	skirt

Discussion/Writing Activity

What is your most valuable piece of clothing? What makes it valuable to you?

Do you have a story that goes with this piece of clothing?

Using Plants

What did they use plants for?

Plants were very useful for making things such as nets, bags and **baskets**. The women were expert **weavers**, and would spend many hours making bags by weaving 'Kangaroo grass' or 'mat rush' **stalks** together. These bags and baskets were very strong and **durable**. The women could carry animals, vegetables, tools or even their children in them when they had to walk a long way.

The gum tree was important to the Wurundjeri-willam because they used the hard wood for many things. Red gum trees used to grow all along the creek. (Today, they have disappeared from the inner suburbs. The Wurundjer-willam would cut

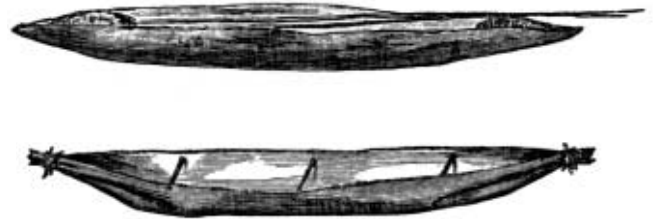


String bag
Aborigines of Victoria
R.B Smyth Vol.1 1878

off a round **lump** from the side of a tree and use it as a container or for **grinding** seeds. The **tough bark** of the tree was taken off in large sheets. The largest, strongest **sheets** were used to make **canoes**. They would bend the sheet up over a smoky fire and tie it at the front and the back. These canoes were useful on the creek but not in the sea because they would tip over very easily!



Tarnuks The Aborigines of Victoria R.B Smyth 1878,
John Ferres Government Printer Melbourne



Bark canoes The Aborigines of Victoria R.B Smyth 1878,
John Ferres Government Printer Melbourne

Are these sentences true or false?

They carried their children in bags made from plants.	TRUE / FALSE
The bags and baskets they made were not very strong.	TRUE / FALSE
The gum tree was important because it had very soft wood.	TRUE / FALSE
They used to cut the bark off the trees in little pieces.	TRUE / FALSE
They used the bark sheets to make canoes.	TRUE / FALSE
They used wooden containers for grinding seeds.	TRUE / FALSE
There are no red gum trees in Melbourne today.	TRUE / FALSE

Take a look around the room. What things can you see that are made of wood?

What products that *used* to be made from wood are now made from something else?

Before you read...

What are some of the important things to think about if you want to choose a campsite?

If you want to buy a house, is the location important? Why? _____

Camps

Where did they camp?



Fishing on the Merri Creek
Melbourne Album, La Trobe Picture Collection, State Library of Victoria

The Wurundjeri-willam lived in the hills during the winter to protect themselves from the rain and cold winds. In winter, the

low land around the Merri creek was **damp**. In summer they came down to the rivers to hunt and camp. Because they usually did not camp for long in one place, they had to take most things with them.

The Wurundjeri-willam didn't have any **permanent** houses. In the colder places, they made 'miams' (shelters) from branches and the bark of trees. These shelters did not have to last for a long time, because the Wurundjeri-willam sometimes only stayed for a few days to a month at a campsite.

Although they didn't stay for long, they often went back to the same places. This probably happened for thousands of years. Because of this, there are places where **mounds** of soil have been found. These mounds can contain tools made of stone and shell, as well as bones and campfire ash.

Are these statements true or false ?

The Wurundjeri-willam never stayed for more than one day at a campsite.

TRUE / FALSE

They lived next to the Merri creek during the winter.

TRUE / FALSE

They often went back to old campsites.

TRUE / FALSE

They never left anything behind at the campsites.

TRUE / FALSE

The Wurundjeri-willam lived this way for thousands of years.

TRUE / FALSE

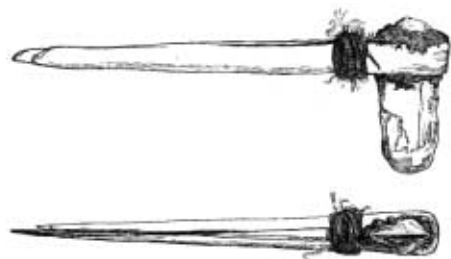
Tools and weapons

How did they make tools and weapons?

Before you read...

What are some of the tools, objects or appliances that you use every day?

Make a list of 5 things you use most often... _____



Axe The Aborigines of Victoria R.B Smyth 1878,
John Ferres Government Printer Melbourne

The Wurundjeri-willam often used stone (rock) tools.

For making axes, they used a hard rock found only in a few places such as Mount William, 60 kilometres north-west of Melbourne. For sharper tools they would heat a rock outcrop with a very hot fire then quickly **pour** cold water on it. Then they would **break off** sharp pieces of stone. The stone was then taken to another campsite where it was made into tools. Sometimes they would **bind** the axe to a wooden handle with resin and bark string. It is possible (but you have to be very lucky) to find Wurundjeri-willam stone tools around the Merri Creek.

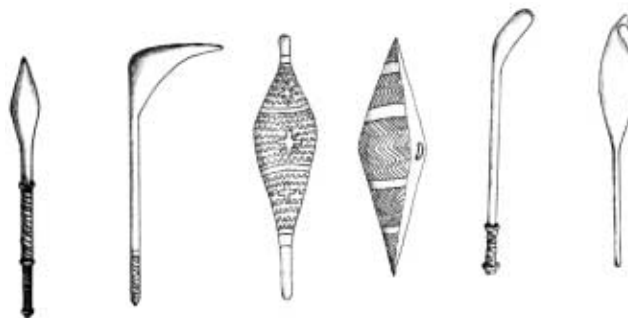
Match these verbs with the object.

(There can be more than one correct answer).

- | | |
|--------------|----------------------|
| to pour | a wound |
| to break off | your head |
| to bind | a meal |
| to protect | a piece of chocolate |
| to heat | a glass of water |

The Wurundjeri-willam used many different weapons for different reasons. Some weapons were for hunting. Some were for fighting enemies and some were only used in ceremonies. They made **spears**, **clubs** and **daggers**, using wood, bone, and animal teeth and **claws**.

They also made **shields** from wood or bark. These shields were to **protect** them from the weapons of their enemies. Some shields were made from hard wood and were very heavy and strong. There are still some trees that show **scars** where the Wurundjeri-willam took away the bark.



Shields and Clubs
Isabel Ellender, People of the Merri Merri

Are these things **tools**, **appliances**, **weapons**, or **utensils**?

telephone _____ gun _____ computer _____

radio _____ fridge _____ screwdriver _____

can opener _____ knife _____ spoon _____

torch _____

Religion and Beliefs

Where did the Wurundjeri-willam come from?

Before you read...

What do you know about the religion of Australia's Aboriginal people?

Do you have any stories from your country or religion that describe how the world was made?

The Wurundjeri-willam, like all Aboriginal people, had their own **legends** about how the people and the land were created. They believed in many powerful ancestor **spirits**, who sometimes looked like animals or people. These spirits could change the land, seas and the skies, and make and **destroy** people. The Wurundjeri-willam stories about these spirits explained their world and everything in it.

The Wurundjeri-willam believed in a great spirit called 'Bunjil'. Bunjil could change to look like a star or an **eagle**.



Bunjil

Bunjil created man from the trees. The **sap** of the tree was the blood of man and the **bark** was his skin. Bunjil had two brothers, 'Booerrgoen' the **Wedge-Tailed Eagle** and 'Pallian' the **bat**.

In another story, Pallian made woman from the **mud** of the Yarra River. The Wurundjeri-willam also believed in a spirit called 'Waa'. Waa was a raven and he was the **symbol** of the Wurundjeri-willam.



Raven

In this story, the ancestor spirits could change themselves and other things in the world.

What did these things change into?

star _____

trees _____

sap _____

bark _____

mud _____

Animals have always been used as symbols in different cultures.

Match the animals in column A with the 'personality' in column B.

A

mouse

lion

fox

dove

dog

eagle

B

independent

loyal

peaceful

powerful

quiet

cunning

What do some animals symbolise in your home country? _____

Discussion/Writing Activity

What are traditional wedding ceremonies like in your home country? _____

Describe the things that make them different to western wedding ceremonies? _____

Marriage

How did they marry?

The Wurundjeri-willam always married someone from a different community, which could be far away. A Wurundjeri-willam man with Waa (the raven) as his symbol had to marry someone from a community that had Bunjil (the eagle) as their symbol.

The Wurundjeri-willam usually married people from the area around the **upper** Goulburn River.

Marriage helped to make friendships between the different communities. If communities were friendly, they could share food and products. Often, several communities held big ceremonies where many people would be married at the same time.

Sometimes a woman who did not want to marry her future husband might run away with another man. Her brothers had to **track** the couple, find them, and bring them back to the camp. Then, with a **boomerang**, **club** or **spear**, the man had to fight the young woman's male relatives to show that



Billibellary's young wife with infant on her back
William Thomas, Brough Smyth papers,
La Trobe Australian Manuscripts Collection, State Library of Victoria

he was serious about the relationship. Men were often injured or killed. The young woman was also **punished** by the women of her family. It was very unusual for the man and woman to continue their relationship.

Choose the correct word to complete these sentences

The Wurundjeri-willam never/sometimes married into a community who had the same symbol.

They occasionally/ frequently had big ceremonies where many people were married.

A woman usually/occasionally ran away with another man instead of her future husband.

A man and woman who ran away without permission seldom/often continued their relationship.

Before you read, put these verbs in the correct spaces. They are all in the past tense.
(One verb does not change in the past tense).

formed, beat, stamped, acted, stretched, coloured, chanted,

He _____ his foot.

The crowd _____ a line.

He _____ the rug on the doorstep.

She _____ in a movie.

They _____ the words to the song.

We _____ our legs during the break.

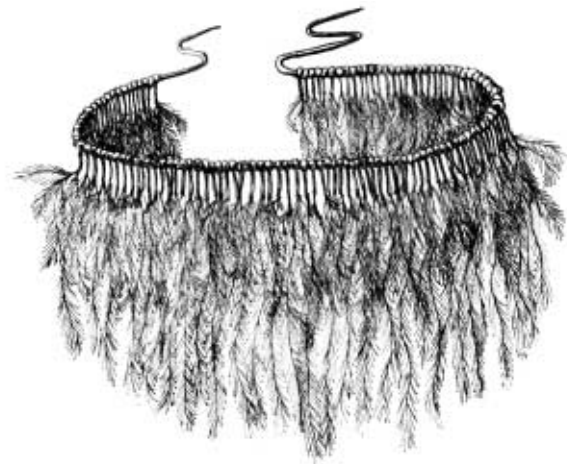
He _____ the picture blue.

Ceremonies

What were some of the traditional ceremonies?

The Wurundjeri-willam had large ceremonies called 'corroborees' where many different communities came together to dance and tell stories. There were different kinds of ceremonies at different times of the year. These ceremonies helped to make friendships between communities. Sometimes people would walk for weeks to go to Wurundjeri-willam lands for a big ceremony. At other times, the Wurundjeri-willam would travel to other communities' lands.

Imagine you are watching a dance called Burilloreun. It is a full moon and the people have come together around a large fire and have **formed** two groups: men and women. A lone dancer steps forward and **beats** two sticks together in **rhythm**. Sitting next to him is a line of women with possum skins **stretched** over their knees. They start to beat the skins with their hands. **Softly** at first, then louder and louder. Together, they make a powerful sound. Then they start to **chant** at a high **pitch**. The dancers start to move slowly



Emu Feather Skirt
Isabel Ellender, People of the Merri Merri

towards the fire. Their bodies are coloured with **red ochre** and they have painted white circles around their stomachs. The men have leaves tied to their wrists and ankles. When the women dance they wear **skirts** made from emu **feathers**. The dancers **stamp** the ground in time to the rhythm and **act out** stories about their ancestors in the spirit-world.

Activity

Use the information in this description of a corroboree to draw a picture of a dancer.

Write a description of a traditional costume that is worn for a ceremony from your home country.

Did you know that Australian Rules football comes from an Aboriginal game?

'Marngrook' was a favourite Wurundjeri-willam game. There were two teams and a 'ball' made from a possum skin stuffed with dry grass and then sewn up. The 'ball' was kicked high in the air and the teams would try and catch it by jumping. The Europeans who saw these games were amazed how high the men could kick the ball and how high they could jump. Aboriginal people have always been excellent Australian Rules football players.

Spirits

What did the Wurundjeri-willam believe in?

Before you read...

The Wurundjeri-willam believed in powerful forces called spirits. Spirits could be good or bad.

Some people call these beliefs 'superstitions'.

Today, what 'superstitions' do people have about these things?

ladders **mirrors** **black cats**

Are there any superstitions you believe in?

The Wurundjeri-willam believed that their world was full of spirits. They believed that when they slept, their own spirit would leave the body and go and talk to other spirits. It would come back before they woke up. If a person was **snoring**, it meant that their spirit was 'outside'. They called this spirit a 'murup'.

They believed the spirits of dead people lived in a **forest** in the sky that living people couldn't see. The traditional doctors ('wirrarrap') had special powers. They could kill or **heal** people with **magic** ('mung'). This magic sometimes could be seen travelling along the ground as a '**willy-willy**'.

The Wurundjeri-willam were very careful about their hair when it was cut off their head. They believed that someone could take it and use magic to make them sick. To **cast an evil spell**, they needed to use something that belonged to that person, like a piece of hair or a piece of clothing.

The Wurundjeri-willam believed that their life and strength came from human **kidney fat** ('marmbula'). They were scared that people would use magic to steal it. If they killed an enemy, they would cut the body open and take out the marmbula. Then they would rub it on their body or even eat a little bit to gain the strength of their enemy.



willy-willy

Did they ever go to enemy lands?

The communities of what is now central Victoria (the Kulin) were traditional enemies of the communities who lived in Gippsland (the Kurnai). Sometimes a small group might go into enemy country to talk or deliver a message to the elders. The visitors had to talk in the other people's language and never touched them. They could not receive food from the strangers' hands because they believed it might make them sick.

Match the two parts of these sentences together

The wurundjeri-willam were careful with loose hair

a 'willy wiily'.

If a person was snoring

to make them strong.

Magic could sometimes be seen as

because people could use it to make them sick.

Living people couldn't see

the forest in the sky.

They believed strength came from

it meant their spirit was outside their body.

They would rub 'marmbula' on their skin

human kidney fat.

The Arrival of the British

When did the Europeans come to Melbourne?

Before you read...

How long have Europeans been living in Australia?

Where was the first permanent European settlement in Australia?

In May 1835, an English sailing ship came into Port Phillip Bay. It was a warm autumn day with little wind. The people on the ship looked all around them and saw trees and long grass everywhere, but no people or buildings. Everything was quiet. They heard only the sound of **waves** and **occasionally** the sound of a bird. This was the way Australia had been for thousands and thousands of years. The country looked empty. But they knew that Aboriginal people lived here.

Why did they come to Port Phillip Bay?

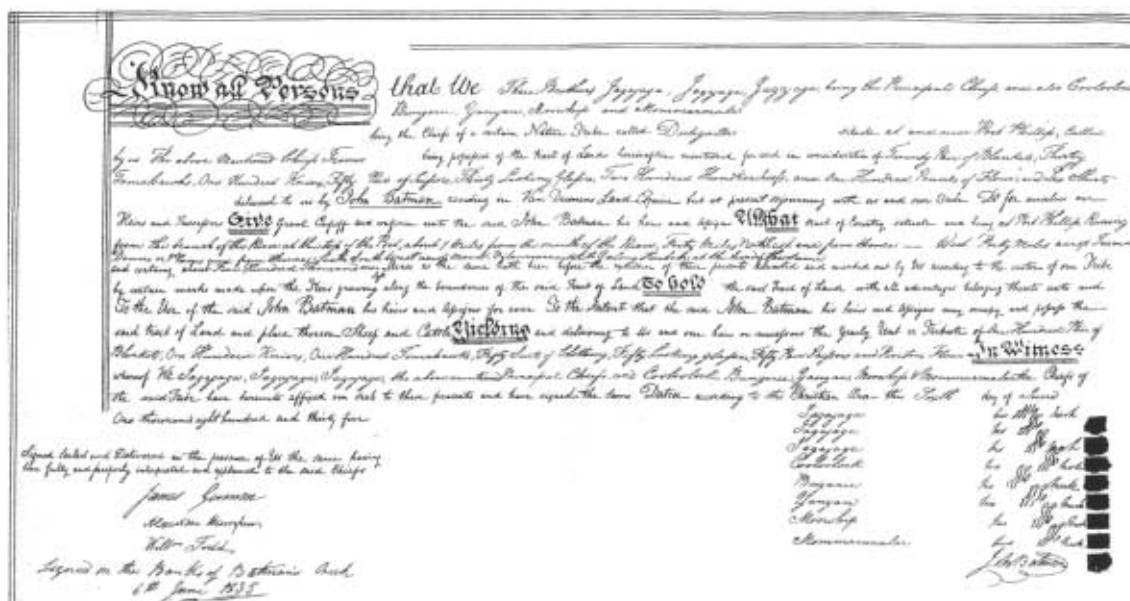
They came for land and to start a **settlement**. They wanted the land to keep sheep and cattle. They knew that they could buy the land from the Aboriginal people for almost nothing. In 15–20 years they could make a big profit.

On the ship was a businessman called John Batman. There were also some Aboriginal people from Sydney to help Batman talk to the Woiworong speakers. Batman brought a **contract** (or **treaty**) that he wanted the Woiworong men **to sign**. He wanted them to let him and his business partners use the

land. In other parts of Australia, the settlers didn't care. They just took the land for nothing. This was because the British believed that Australia belonged to no-one before they arrived. Sometimes they hunted, **imprisoned** or killed Aborigines who fought to defend their traditional land. Batman had made this mistake in Tasmania a few years before. Now he wanted **to avoid** any violence.

Batman and some other white men walked to the north of Port Phillip Bay. Here they met important **elders** of the Woiworong people. The white men talked to the elders about what they wanted. Then they gave them some mirrors, axes, knives, scissors and blankets. They promised to give them 200 blankets, 50 mirrors, 50 scissors, 100 knives, 50 suits, 100 axes and 5 tons of flour every year. The elders gave the British some possum skin cloaks **in return**. Then the elders signed the treaty. This was the first (and only) treaty between the Australian Aborigines and the Europeans. Batman and his company now owned about 2400 square kilometres of land.

But the colonial government did not agree to this treaty. They said it was illegal and they never agreed that the land belonged to any Aboriginal people.



The treaty between John Batman and the Woiworong Elders LaTrobe Australian Manuscripts Collection, State Library of Victoria

Read this summary of the story of the arrival of the Europeans. Put the following words in the correct places.

people, mainly, was, land, cattle, other, war, treated, gave, to, promised, persuade, allowed, cruelly, wanted,

The Europeans didn't want to start a war with the Aboriginal _____.

They were _____ interested in finding _____ for their _____.

In _____ parts of Australia, the Aborigines were _____ very _____, and the Melbourne settlers _____ to avoid this situation.

The Europeans _____ some simple gifts _____ the Aboriginal elders and _____ them more each year as rent for their land. This helped to _____ the Aboriginal elders to sign a treaty that gave them the right to use their traditional land.

This treaty _____ the only time that the Aboriginal people were _____ to discuss the right of other people to use their land.

Discussion

Do you think this was a *fair* treaty?

Exercise

Negotiate a treaty with another person in the class.

For example: *You need someone to look after your kids on Friday night.*

You need to borrow someone's car.

You need someone to dig up a tree in your garden.

Tell them what you want and what you will give them if they help you. Try to make a fair deal (you can't give them money). Then report to the rest of the class what you agreed to do for each other.

The Story of Buckley

William Buckley was an English **convict** (prisoner) who was sent to Australia. He escaped from a small prison settlement at Sorrento in 1803. He walked right around Port Phillip Bay and then walked west into the bush. After he escaped, the Sorrento prison settlement **relocated** to Tasmania.

Buckley was alone in the Australian bush. When Buckley was almost dead from starvation, he was found by Wauthurong Aborigines. They looked after him and he lived with them for 32 years and learned their language.

In 1835, he heard about a new settlement at Port Phillip Bay from the Wauthurong. He decided to go back and give himself up. The settlers were **amazed** when they saw him. He looked just like an old Aboriginal man. He carried a spear and wore a possum skin cloak but his skin was white. He told the settlers who he was. But because he had not spoken English for so long, his English was difficult to understand. Buckley was forgiven. He stayed with the settlers and found a job as an Aboriginal interpreter for them.



Dispossession and Disease

How did the Europeans change the lives of the Wurundjeri-willam?

Before you read...

Match these words to their meanings

dispossession	areas of land
disease	loss of something (usually land)
tragedy	sickness from infection
sacred	understanding who you are
identity	holy or religious
grounds	a terrible thing

The arrival of the British was the beginning of a **tragedy** for the Aboriginal people. Soon, settlers were arriving quickly in Port Phillip Bay. They were looking for land. Later, some convicts who had finished their time in prison also came for land. They started to cut down trees and put cows and sheep on the land. These animals ate the grasslands and stopped some plants from growing. The Aboriginal people needed many of these plants for food. The settlers also **forced** the Wurundjeri-willam away from their traditional hunting and camping areas. It was very difficult for the Wurundjeri-willam

to move from their traditional homelands and change their hunting and camping grounds. Other hunting and camping grounds belonged to different groups.

Each community had its own homelands and special places. They had been going to the same places for thousands and thousands of years and these places were **sacred**-part of their religion and culture. The **loss** of these places was also a loss of their culture and **identity**. This situation **led to** arguments and sometimes fights between the Aboriginal people and the settlers.

Comprehension Questions

Why were the introduced animals bad for the Wurundjeri-willam? _____

Why couldn't the Aboriginal people find new places to live? _____

Melbourne From Collingwood 1841
Lithograph by John Skinner. La Trobe Picture Collection, State Library of Victoria



In 1838, a Wurundjeri man called Tullymarine was caught stealing potatoes from a settler's farm. He was captured and put in Melbourne **gaol**. At this time, Melbourne gaol was a small hut made of bark. Tullymarine burnt the building and escaped. He was caught and sent to gaol in Sydney. After he was let out of gaol he started to walk south. He walked 900 kilometres back to Melbourne. There is a suburb in Melbourne named after him – Tullamarine.

Did the British try to help the Aboriginal people?

The British government knew that there would be problems, and they tried to stop the violence. They tried **to protect** the Aboriginal people from settlers. They employed some white men to help the Woiwurung people. They were called '**Protectors**'. The Protectors tried to understand the Aboriginal culture, but they also wanted the Aboriginal people to change their religion to Christianity and to learn about farming. They wanted them to live like the white people. The Protectors thought they were doing the right thing.

The Assistant Protector for the Melbourne area was William Thomas. He was **respected** by the Wurundjeri-willam, and he wrote about their **way of life** in a journal. His journal is very important, because the traditional way of life has disappeared now.



The Assistant Protector, William Thomas
William Thomas, Brough Smyth papers, La Trobe Australian Manuscripts Collection,
State Library of Victoria

Discussion Activity

In groups, discuss whether you think the protectors were really helping the Aboriginal people.

Were there any other problems for the Aboriginal people?

Some of the Aboriginal people stayed on their traditional lands, but they had to **depend on** food from the settlement because many native plants and animals had **disappeared**. Their **diet** changed and this was unhealthy. The settlement was also an unhealthy place. Rubbish, **sewerage** and animal waste were thrown into small rivers like the Merri Creek, killing fish and **forcing away** birds and animals.

The biggest **disaster** was disease. The settlers brought with them diseases that killed hundreds of Aboriginal people. They did not have any **resistance** to these **foreign** diseases. This was the main reason for the **decrease** in numbers of Aboriginal people in just a few years.

Put the words in bold in the story in the correct spaces

If people stop having babies, the population will decrease.

They couldn't eat a healthy _____.

Many Aboriginal traditions have _____.

Water from toilets and kitchens is _____.

_____ things come from different places.

The government has been _____ refugees.

An invasion is a _____ for the local people.

If you eat good food, your body has _____ to diseases.

It is difficult if you have to _____ other people for money.

William Barak

William Barak was the last traditional 'ngurangaeta' or 'head man' of the Wurundjeri-willam. William Barak was a young boy when he witnessed his uncle Billibellary signing the treaty with the Woiwurung elders. Barak was respected in his own community and by the Europeans. He told the Europeans a lot about the traditions of his people. He was also an artist. He painted many pictures showing Wurundjeri-willam life, such as corroborees. The National Gallery of Victoria has seven of his paintings.

Barak tried hard to do the best for his people. When the government decided to move his people out of their traditional land at Coranderrk near Healesville, Barak wrote to the leaders of the European community asking them to let his people stay. He even wrote a letter to Queen Victoria in England, but he never received a reply. William Barak died in 1903.

William Barak *La Trobe Picture Collection, State Library of Victoria*



What happened to the Wurundjeri-willam?

By 1860, most Wurundjeri-willam had been pushed out of Melbourne to a traditional place called Coranderrk, near Healesville. Over the next 60 years, many of the Wurundjeri-willam became Christians. In 1922, they were moved by the government to Lake Tyers in Gippsland.

Like Aborigines all over Australia, they were forced to move to strange lands and many children were taken away from their families to be educated like European children. Many of these children never saw their parents again.

Although they no longer lived the traditional way, the Wurundjeri-willam kept their culture alive.

Today, the Wurundjeri have created their own organisation – the 'Wurundjeri Tribe Land Compensation and Cultural Heritage Council'. This has helped them regain ownership of important land and has educated the community about their history and hopes for the future.

Another article here??

Catchments

Look at a map of your city. What is the nearest creek or river to your home?

Hold out your hand, **palm** upwards. Now imagine it is starting to rain and you want to catch some water in your hand. You make a 'cup' shape with your hand (this is called 'cupping' your hand). If you cup your hand, you can see the lines in the palm of your hand very clearly.

Imagine these lines are like rivers in a valley. As the rain starts to fall, the water falling into your hand flows towards the lines, like water flowing down the sides of a mountain into a river. Soon your hand begins to fill with water.

In a similar way, you can see that rivers collect water from a large area of land. The area of land that sends water to a river is called a catchment.

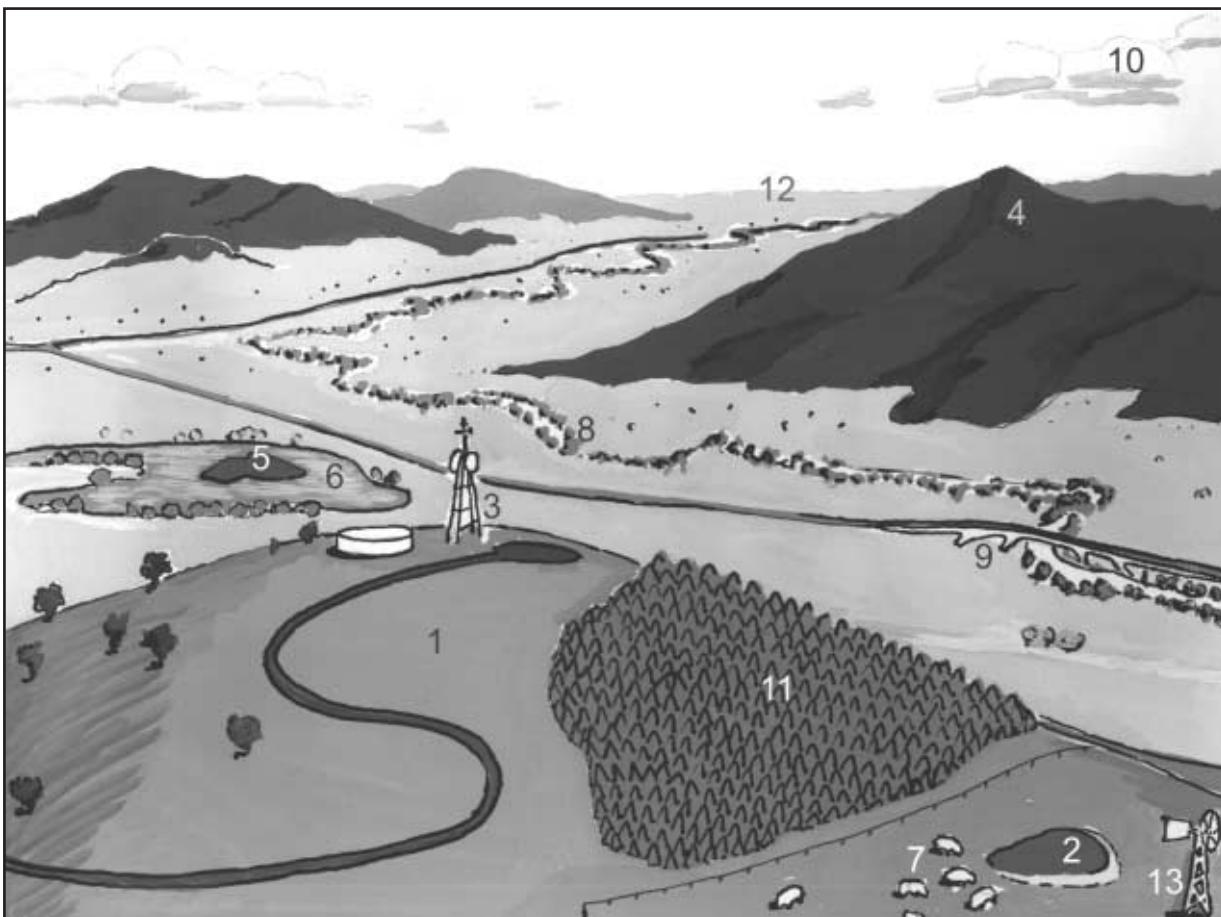
Everybody lives in a catchment. Even if you live in the desert, a long way from a river, you are part of a catchment. Much of the water that falls in city catchments flows straight into drains, and from there goes into the creeks, rivers, and finally the ocean. So litter, chemicals, dog poo, oil, paint and anything else people throw away goes into our rivers.



Rural Catchment

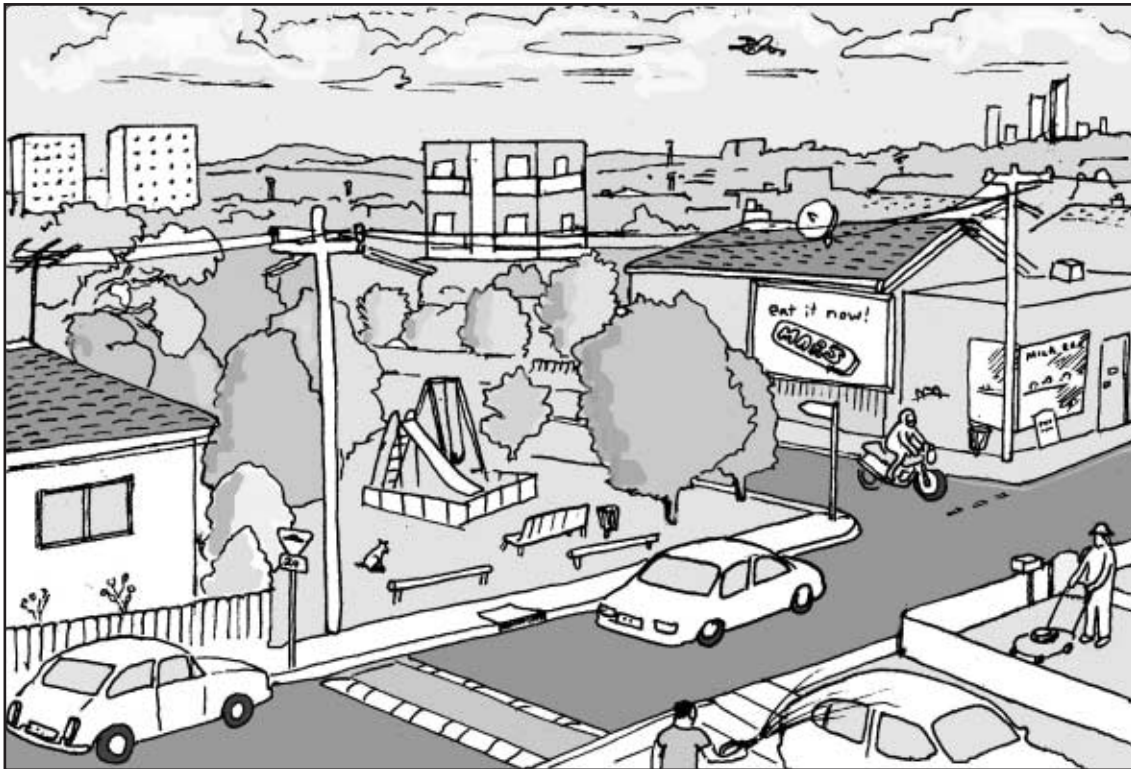
Look at the picture and put the correct number next to these natural features

mountain hill river lake horizon forest dam windmill cloud cattle
tower bridge island



Urban Catchment

In groups, look at the picture and write down the names (nouns) of things you can see. Check your spelling then compare your list with other groups.



Discussion/Writing Activity

As cities become more and more crowded, it becomes harder to keep the water in our catchments clean.

Do you think Melbourne is polluted? _____

What do you think causes pollution of the creeks and rivers in a modern city? _____

What do you think are the main causes of air pollution in a big city? _____

All the words in this sentence have been joined together. Copy the sentence, but separate the words correctly.

It is very important to understand that the drains in our street take water and rubbish straight into our creeks and rivers and then into the ocean

Melbourne's Early Days



Industrial Pollution

In the 19th and early 20th centuries, a lot of pollution came from factories. The air was polluted from smoke from wood and **coal** fires. Factories **dumped** their rubbish into open sewers and water polluted by metal and oil flowed into the creeks and rivers.

There was no sewerage treatment system in Melbourne before the 20th century. Sewerage was taken away by horse and cart and dumped in big **cesspools** near houses. When it rained, the sewerage flowed into the creeks.

By the 1850s, Melbourne had 30,000 cesspools of sewerage mixed with dead animals.

Look at the illustration. With a partner, find these things in the picture.

smoke from wood and coal fires

open sewers

horse and cart

cesspools

factory

chimney

Discussion Activity

Look out the window at the landscape. Try to imagine what it looked like before Europeans came to Australia.

In groups, discuss what you think your suburb looked like 50 years ago

There were/ was more...

There were/was less...

There was/were no...

What did it look like 150 years ago? What will it look like in 150 years?

The Creek Became a Sewer

By the end of the 19th century, factories and other businesses were using the Merri Creek like a big sewer **pipe**. The government didn't care. Soon people started to **complain** about the smell from the creek. Eventually the government decided to do something about it. But they didn't tell the factories to stop **dumping** polluted water and rubbish in the creek. Instead, the government decided to make the creek **flow** faster so that the rubbish would move quickly towards the Yarra River and the ocean.

At the beginning of the 20th century, they tried to **remove** big rocks from the creek to make the water flow faster. They made **drains** to take polluted water straight from the factories into the creek. But because Melbourne was growing so fast, the creek became more and more **filthy** as more and more factories were built. It smelt **disgusting** and was very dangerous but children still used the creek for swimming. No wonder so many people caught diseases!

Put these words in the correct spaces

dump flow remove drain filthy disgusting

Rivers always _____ from high ground to low ground.

Don't put your rubbish in the _____.

People often _____ stolen cars next to the river.

After the children played in the mud their clothes were _____.

It is difficult to _____ chemicals from the creek.

Polluted water smells _____.



Sewerpipe
Brian Bainbridge

Discussion Questions

The creek was like this more than 100 to 150 years ago. Are there any places that are similar to this in your home country today?

Do you think these places will become cleaner in the future?

Did you know?

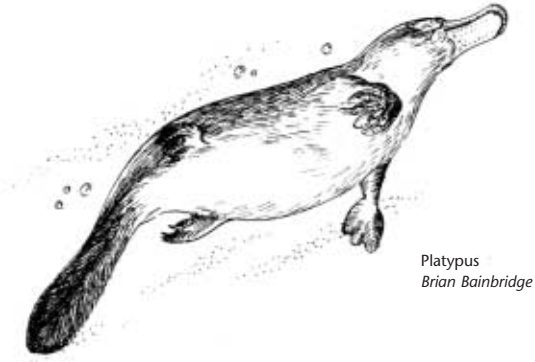
The first underground sewerage system in Melbourne was made in 1908. This helped to improve the water quality of the creeks and rivers. After 1920, Melbourne started to grow faster than the sewerage system, so there were still a lot of pollution problems.

Native Animals

Platypus

This unusual animal is a **monotreme**. This means it lays eggs like a bird, but when the young (babies) **hatch**, they drink the mother's milk. The Echidna is the only other animal that is a monotreme. Did you know that the male platypus can be dangerous? On its back legs it has a **spur** (like a claw) which is **poisonous**.

Platypuses are beginning to return to Melbourne because the water quality is slowly **improving**. But one in five platypuses are found **tangled** in **litter**.



Platypus
Brian Bainbridge

Match these words with their correct definitions

to hatch	strange
to improve	sharp toenail (animal)
to be tangled	to break out of an egg
claw	to be caught in something
unusual	to get better

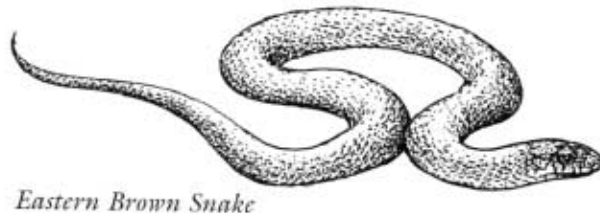
Yabbies

Yabbies are freshwater animals. They look a bit like a small **lobster**. They live in **burrows** in the bottom of a river. Cooked yabbies taste delicious. You can catch yabbies with a piece of meat tied to string. The yabby will follow the meat out of the water.

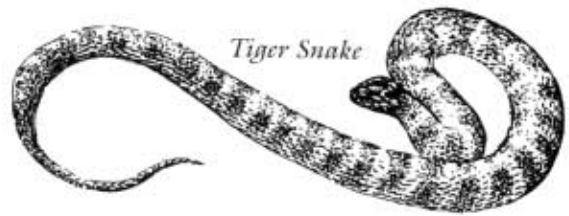


Sacred Kingfisher

Sometimes in spring, along a quiet part of the Merri Creek, you might see something small and shiny blue **speed** through the air. This small bird is called a kingfisher. Kingfishers are related to Laughing Kookaburras, but they are much smaller. Kingfishers live in northern Australia during the winter and fly south during spring and summer. Kingfishers have returned to areas that used to be more polluted. Sacred kingfishers actually don't eat many fish, they mainly eat insects such as grasshoppers and dragonflies.



Eastern Brown Snake



Tiger Snake

Snakes

Snakes are an important part of the Australian environment. They eat frogs, small birds, mice and rats. Snakes are also eaten by birds, like kookaburras and hawks. Snakes are protected by Australian law. It is illegal to kill them.

Are there snakes in Australian cities?

Yes. Tiger snakes, brown snakes and black snakes are occasionally seen around creeks and in long grass. They are usually seen in the spring and summer months. If you are walking near a creek or in long grass – **Remember!**

1. Snakes are shy – they will not attack you if you leave them alone.
2. Snakes usually get out of your way – they are scared of humans.
3. If you are walking in long grass make lots of noise.
4. Wear strong shoes or boots and long trousers.
5. When stepping over a log, look on both sides.

Snakebite is very uncommon, but it can be fatal. It is important to treat it quickly. People are usually bitten on the lower limbs.

Treatment

1. You need to treat snakebite immediately.
If you have a long bandage with you, you should wrap it firmly (but not too tight) around the whole limb. Start at the bite.
If you don't have a bandage use clothing.
2. Keep the limb as still as possible. Bind it to a splint if you can.
3. Try to move the person as little as possible.
4. Ring for medical help. Don't take off the bandage until they are in hospital.



Never cut or suck the bite! Never use a tourniquet!

Don't wash the bite because the hospital will need to identify the snake by the venom.
Call 000 emergency as soon as possible

Comprehension Questions

1. Which of these animals eat snakes?
hawks frogs rats kookaburras mice small birds
2. At what time of the year are snakes usually seen? _____
3. Is it legal to kill snakes? _____

Are these statements *true* or *false*?

- | | |
|--|--------------|
| Snakes will attack you if you don't wear shoes. | TRUE / FALSE |
| Snakebite is very common. | TRUE / FALSE |
| Snakes will hear you if you make a lot of noise. | TRUE / FALSE |
| Snakebite is always fatal. | TRUE / FALSE |
| Snakes are often found near logs. | TRUE / FALSE |

Use the words in the box to complete the text below. The first one is done for you

few accident alert most destroy crocodiles every many

There are many dangerous creatures in Australia, but very _____ people actually die from them. There are only one or two deaths from snakes, sharks or _____ in Australia each year. Compare this with the number of car _____ deaths every day!

It is important to be _____ in the bush but there is no reason to be worried.

Australian animals know which is the _____ dangerous creature in the world. It has two arms and legs and can _____ anything. Animals will almost always get out of *your* way.

Discussion Activity

In groups, make a list of the three most dangerous animals in your home country.

Compare your list with the others in your group and explain why they are dangerous.

Have you ever had an experience with a dangerous animal?

Think about these animals. Which ones are dangerous and why?

bear lion spider python kangaroo echidna koala monkey

Introduced Animals

Introduced animals have been brought to Australia from other countries. Sometimes these animals were brought to Australia as farm animals. Sometimes they have arrived in Australia by accident. Introduced animals are one of the biggest threats to the Australian environment. They often eat native animals or the plants that native animals need to survive. Some, like the Indian **mynah** bird, take over the homes of other animals.



Match the names of these animals with the picture. Which of these animals are native and which are introduced?

rabbit fox cow cat dingo
magpie possum European carp
brown rat rosella kangaroo
platypus tiger snake echidna

Underline the introduced animals.
Put the name of the correct introduced animal in the space.

_____ Looks like a dog, is very intelligent and hunts native animals at night.

_____ Large animal that eats native plants and grasses.

_____ Eats waterbugs, small native fish and makes our rivers muddy.

_____ Breeds very quickly, eats grasses and causes soil erosion.

_____ Hunts native animals at night and is good at catching birds.



Ferals
Brian Bainbridge

A Food Chain

Plants and animals depend on each other to survive. These relationships are known as food 'chains' or 'webs'. If animals or plants start to disappear, the animals that eat them will disappear too.

Rearrange these simple food chains in the correct order. The first one is done for you.

grass–humans–cows humans eat cows and cows eat grass

plants–cats–dragonfly–birds _____

grass–eagles–rabbits _____

plants–frogs–kingfishers–insects _____

snake–seeds–mice–kookaburra _____

Which of these food chains are native animal food chains?

Feral Cats

How many cats do you think there are in Victoria?



About 900,000 cats live with their owners. About 300,000 are 'strays' (they don't have an owner or they have run away from home) and about 200,000 are feral (they live in the bush and avoid humans).

If each cat in Victoria killed twenty animals every year, about 30 million animals would disappear every year! Domestic cats and feral cats can eat a lot of native animals. Feral cats can weigh up to six kilograms. They hunt at night and they are well **camouflaged** during the day.

Cats live all over Australia. They can **survive** in the desert because they don't need to drink water if they can kill animals. Cats can breed twice a year, so the population grows **rapidly**.

Put these questions in the correct order, then find the answers in the text

there / cats / how many / are / in Victoria / ?

_____ ? _____

times / how many / breed each year / do cats / ?

_____ ? _____

do / hunt / when / feral cats / ?

_____ ? _____

do / feral cats / live / where / ?

_____ ? _____

Discussion Activity

What should cat owners do to protect native animals?

Here is a list of ideas to protect native animals from your cat. There are nine ideas (some are not very good ideas). Form groups and discuss these ideas. Your group has to decide which are the best four ideas.

Keep your cat inside at night.

Keep your cat outside at night.

Put a small bell on your cat's collar.

De-sex your cat.

Feed your cat only vegetables.

Keep your cat inside all the time.

Make sure your cat isn't hungry.

Make sure your cat wears a bright orange coat.

Introduced Plants

What is a weed?

Like introduced animals, there are an enormous number of introduced plants in Australia. Plants that take over other plants are often called **weeds**. There are about 2700 different kinds of introduced plants in Australia.

One of the dangers of introduced plants is that they change the **habitats** of native animals. A habitat is the environment that an animal lives in. For example, a kangaroo lives in a forest or grassland habitat. A pelican lives in a **coastal** habitat (near the sea). Introduced plants can change habitats forever and **drive out** native species if these plants are not removed before they become **dominant**.



How can I help to stop weeds?

Put these verbs in the correct places in the text.

contact plant do see stop come are

There are many things you can do to help _____ weeds. You can _____ a community group and find out about 'community planting days'. On these days, people _____ together to _____ native species that _____ in danger from weeds. Another important thing you can _____ is plant only native species in your garden.

'To weed out' means to remove something over a period of time
e.g, 'He slowly weeded out the problems with his new car'
'She decided to weed out her old clothes'

Word-Weeding exercise

Look at the following sentences. In each sentence a word is spelt incorrectly or doesn't have the correct ending. 'Weed out' these words and replace them with the correct word. The first one is done for you.

Removing weeds costs city councils a lot of **mony**. money

She love to work in her garden. _____

Make sure you don't waist too much water in summer. _____

Introduced plants can be bad for naytive animals. _____

Bird can spread weeds. _____

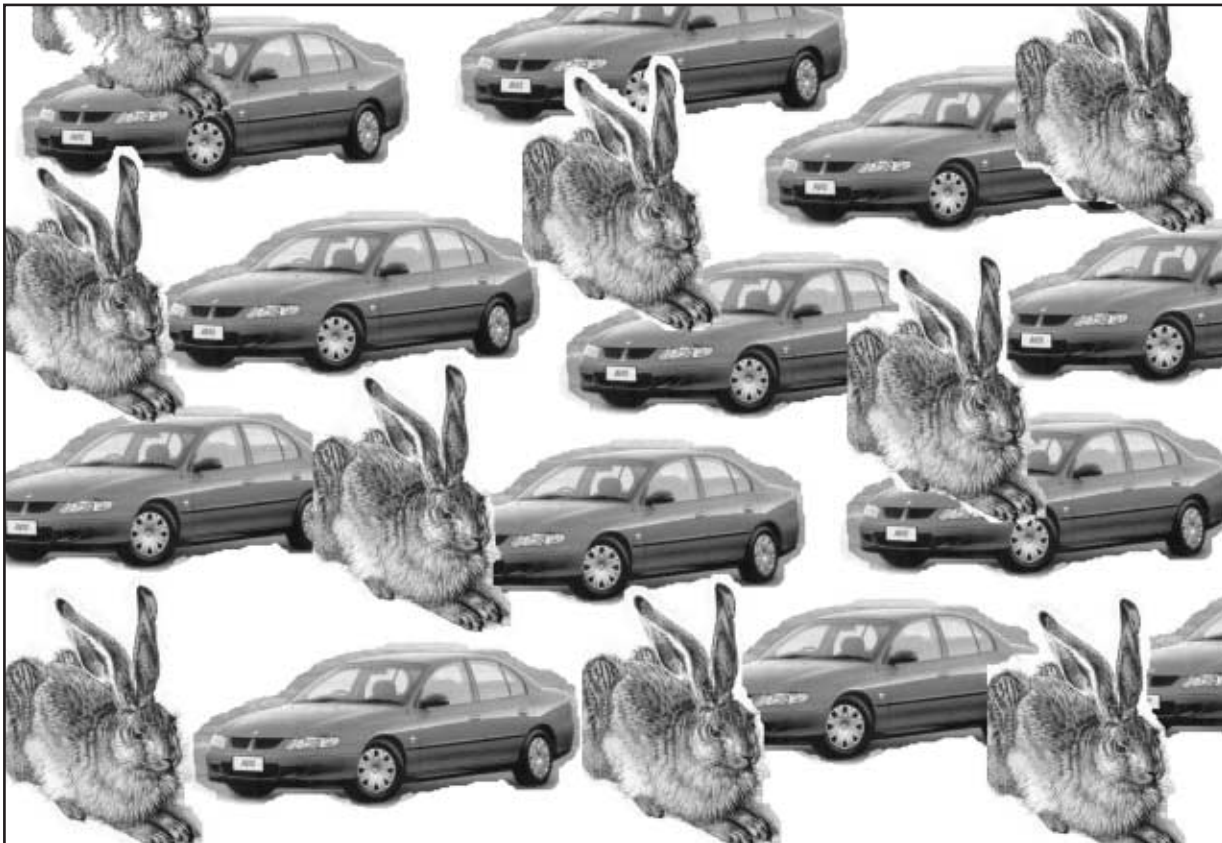
To have a healthy gardin, you need good soil. _____

They keeps old newspapers for their garden. _____

Cars and Transport

Discussion Questions

- What percentage (%) of Australians live in cities?
- How much time do you spend in your car each week?
- What do you use your car for?
- How often do you use public transport?



What do cars and rabbits have in common?

In 1859, twenty four rabbits were released on a property near Geelong for shooting practice. By the 1930s, there were more than 800 million rabbits in Australia. It was a **plague**. It was a disaster for Australian farmers, because the rabbits ate enormous areas of grass and caused **erosion**. Rabbits are still a major environmental problem.

Today, there is a plague of cars. At the beginning of the 20th century, the first motor vehicles were brought to Australia. By the end of that century there were over twelve million

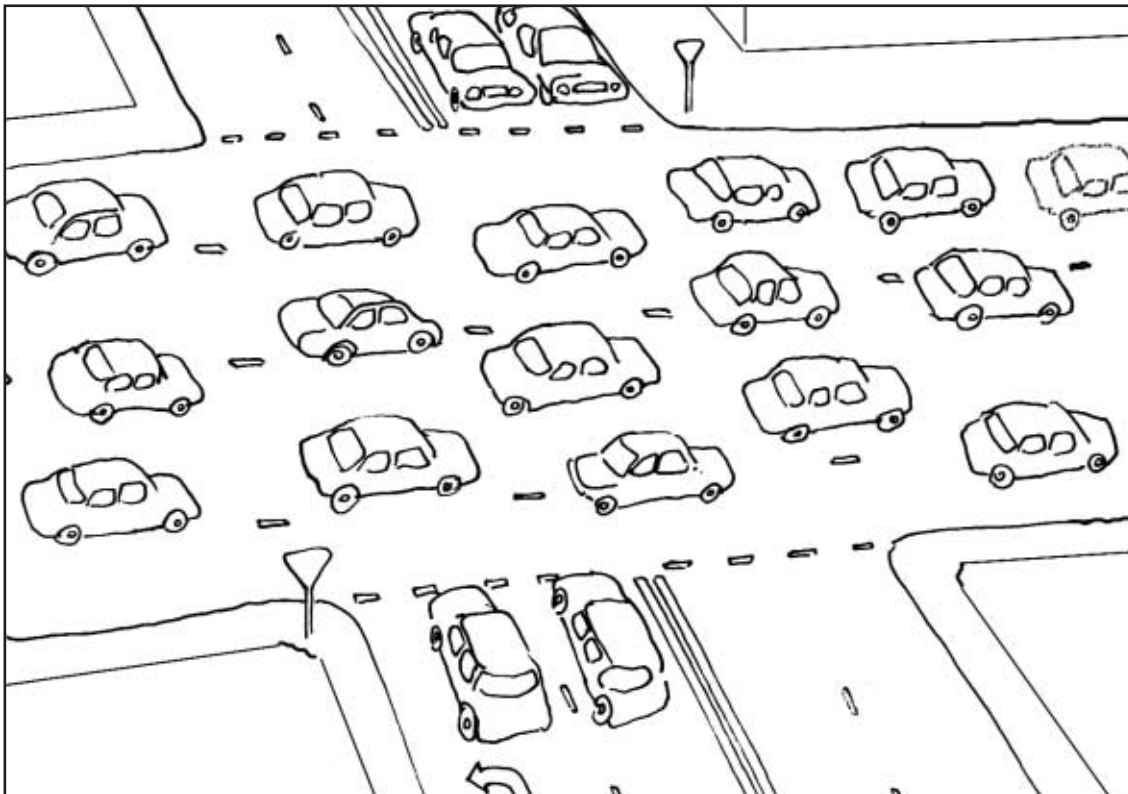
vehicles in the country. That's seven vehicles for every ten people. Like rabbits, cars change the environment. Roads and freeways are a growing environmental problem. There are about 800,000 kilometres of roads in Australia – that's about 20 journeys around the world.

One of the problems is that cities are becoming more and more polluted by cars and roads.

But Most city governments want to build more freeways to help keep traffic moving.

Did you know?

Almost 80% of Australians drive to work. Almost half the car trips in Australia are less than five kilometres long. Every day, Melburnians make more than eight million trips by car. Since 1974, the Australian government has spent 43 billion dollars on roads but only 1.5 billion on public transport.



Car Vocabulary

Which word is the 'odd word out' in these groups and why? Discuss with a partner

tram, train, bus, skateboard

traffic light, roundabout, stop sign, parking meter

car, bicycle, motorbike, ship

seatbelt, steering wheel, gear-stick, number plate

freeway, road, track, path, escalator

mechanic, garage, service station, car wash

Activity

Form into groups. Each group has to discuss and then write down two advantages and two disadvantages for each of these ways of getting around.

	Advantages	Disadvantages
Buses	_____	_____
	_____	_____
Trains	_____	_____
	_____	_____
Cars	_____	_____
	_____	_____
Trams	_____	_____
	_____	_____
Taxis	_____	_____
	_____	_____

In some cities, (such as Manila in the Philippines) it is illegal to drive a car with only one person in it during peak hour. Do you think we should have the same rule in Australia?

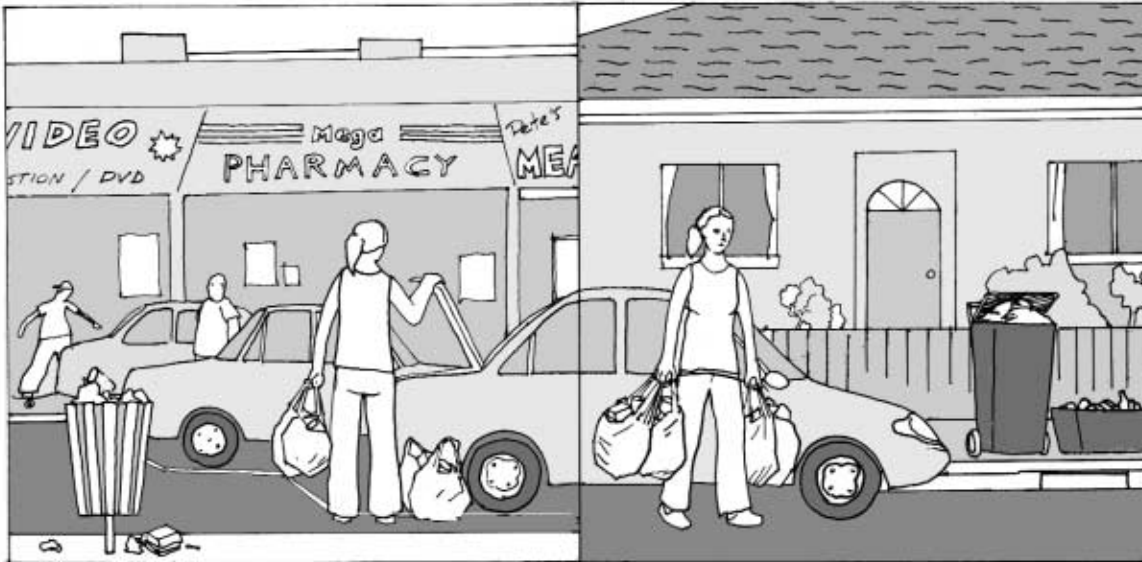
Do you think governments should make it more expensive to own a car, or cheaper?

Reducing Your Rubbish

Discussion Questions

Should plastic bags be free of charge when you go shopping?

What do you do with old plastic bags?



Reduce – Re-use – Recycle



There are many things you can do to help the environment and save yourself some money at the same time.

To **reduce** means to use something less. For example, not using too much electricity, or not buying things you don't really need. To **re-use** means to use something again. For example, using

a take away food container again. To **recycle** means to make something new from waste materials. For example, using old newspapers to make new newspapers or other paper products.

In groups, decide whether these sentences are examples of reducing, re-using or recycling. Do you think they are useful ideas or silly ideas?

Keeping glass bottles and using them to keep food.

re-using

Writing on both sides of a piece of paper.

Putting out old newspapers for collection by the council.

Turning off the lights after you leave a room.

Wearing the same shirt for 3 days.

Putting out empty beer bottles for collection by the council.

Saving petrol by driving at 30 kilometres per hour.

Riding a bicycle to work or school.

Borrowing toys from a toy library instead of buying them.

Turning off the hot water system in summer.

Only buying clothes from second hand clothes shops.

Giving your old car to your children.

Did you know?

When you pay for groceries, you are paying about 10% extra for packaging.

Discussion Activity – Shopping Vocabulary

Which word in each category is the 'odd one out.'? Explain why you think it is different to the others.

containers cardboard box, string bag, shopping trolley, backpack, plastic bag

shops delicatessen, greengrocer, baker, butcher,

food vegetables, fruit, meat, bread, pizza

measurement a kilogram, a dozen, half a dozen, a litre, a bag

supermarket checkout, aisle, turnstile, service desk, shelf, security guard

Composting

Composting is a great way to recycle old vegetable scraps. You can put kitchen and garden waste in the compost bin. After 6–8 weeks you will have beautiful, rich, dark soil for the garden.

This will help your plants to grow faster. You can buy a compost bin from the local council or a hardware store.

Using a compost bin will reduce your waste by 50%. (People in Melbourne throw away 280,000 tonnes of food waste each year.)



Word Compost

Just like you can turn old food into new soil, you can turn old words into new words. You can use the letters in the words below to help you find the answers to the clues. You can use each letter more than once. The first two are done for you.

Orange peel

He can't walk. He has a broken leg.

o r a n g e p e e l

You write with a pen.

o r a n g e p e e l

He had to _____ to the toilet.

You whisper in somebody's _____.

Old carrots

She is a famous movie star.

o l d c a r r o t s

If you walk in the rain you will catch a _____.

In winter, you should wear a heavy _____.

He was _____ because his cat died.

You can't buy it, it's already _____.

If you want to fix your car, you need to buy good _____.

Tea leaves

If you steal money, you might go to jail.

t e a l e a v e s

Her dog was very sick, so she took it to the _____.

Don't _____ old food.

She missed the start of class because the tram was _____.

Black bananas

You borrow money from the _____.

If you have a bad _____, you should try swimming.

If you don't know the answer, you should _____ the teacher.

You can recycle aluminium _____.

Saving Energy and Money

There are many ways we can reduce our effect on the environment. Some changes to the way we live are easy to make. Just by changing a few habits, you can help the environment.

If you buy **efficient** products, you can save yourself money too. Australians spend on average about \$1500 per house on energy (electricity and gas) and approximately \$6600 on transport (mainly car running costs) each year. For example, if you buy an efficient fridge you can save hundreds of dollars every year. If you buy an AAA rated



energy-smart shower head, you can save \$100 dollars on water bills each year.

Whitegoods, such as fridges and washing machines are sold with a 'star' rating. The most efficient products have a 5 star rating.

Put the following words in the correct spaces. When you have finished, discuss these energy-saving ideas with a partner or in a group. Do you think they are good ideas?

bucket heat fridge wash instead of kettle blanket walls oven electric system fluorescent

Keep the temperature in your _____ between three and five degrees.

Turn off your hot water _____ when you go on holiday.

_____ living areas to less than 21 degrees.

_____ clothes in cold water.

Use a microwave oven _____ a normal oven.

Use an electric _____ instead of a saucepan to heat water.

Use _____ lights instead of normal light bulbs.

Don't use an electric _____. Wear more clothes in bed.

Paint the _____ light colours and buy light coloured furniture. This way, you don't need to use the _____ lights very much.

Cook more than one meal each time you use the _____.

Saving Water

What are some simple ways to save water?

Unscramble these words and put them in the correct space.

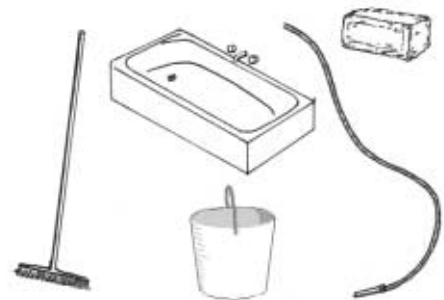
bickr thab tebuck sohe borom

Wash the car with a _____, not a _____.

Don't clean the driveway with a hose, use a _____.

Put a _____ in the water tank of your toilet.

Water your garden with old water from the _____.





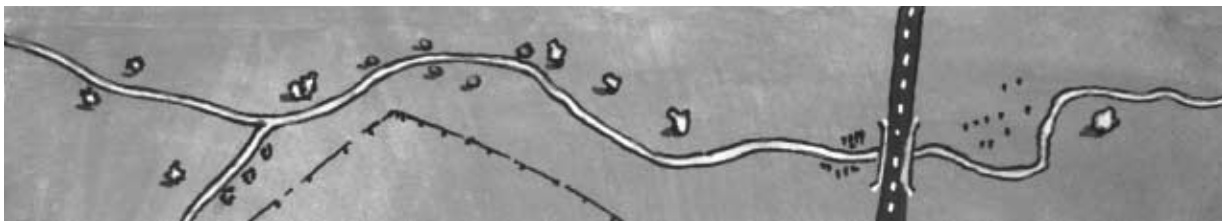
Beginnings

It is winter and the **grasslands** to the north of Melbourne are wet. The ground is **soggy** and there is a cool wind blowing through the long grass. Not far away, you can hear the **hum** of the trucks going up the Hume Highway to Sydney, splashing through **puddles** on the road.

The clean rainwater is **trickling** along the ground towards the low areas. Some of the water that runs off the road is **shiny** from oil. The water **flowing** in tiny streams joins up with other streams until a small river – a creek – is made. Most rivers begin this way, almost **invisible** at first. Where exactly does a river begin? This is a difficult question to answer.

Match the word to its meaning. The first one is done for you.

grasslands	bright
soggy	a small pool of water
hum	something you cannot see
puddles	damp or wet
trickling	large areas of grass
shiny	moving (water or liquid)
flowing	a long steady noise
invisible	water moving slowly



Craigieburn Bridge

(Melways p 387 E10)

On the outskirts of Melbourne, there is a bridge over the Merri Creek at Craigieburn.



Not far away is a large quarry. Trucks full of stone from the **quarry** roar down the hill and when they cross the bridge, it shakes. When the noise has disappeared, you can hear the birds again. **Black crows** cry – Aaark! Aaark! You can see willy wagtails **hopping** around looking for insects. The creek **wanders** through the farmland. Tall **reeds** grow at the edge of the creek. The water is a bit **murky**. This is caused by run-off from the farms. This **run-off** can be **eroded** soil, fertilisers and other chemicals. Someone has thrown an old car engine off the bridge into the creek. This is where the Merri Creek begins to flow into Melbourne.



Put these words in the correct sentences. The first one is done for you.

quarry eroded patches reeds murky hopping run-off wander

The quarry was very deep.

On the weekend , people like to _____ through the park.

There were _____ of grass in the dirt.

The kangaroos were _____ through the bush.

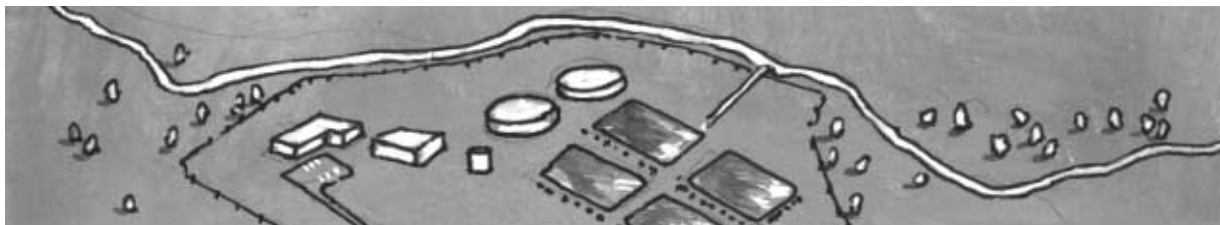
Muddy water is very _____.

Tall _____ grew next to the lake.

The hill was very _____ because too many people walked on it.

The _____ from factories flows into our rivers.





The Sewerage Treatment Plant at Craigieburn

(Melways p 387 D11)

At Craigieburn, next to the Merri Creek, there is a **sewerage treatment plant** (STP). An STP looks a bit like a factory. Waste water is **stored** in large pools where it is **treated** with chemicals to make it safer. The treated water then flows into the Merri Creek.

This water is not **drinkable**. Some people believe the STP is bad for the creek and they want it to be **closed down**. But it is also true that the STP helps to keep the water flowing in the creek, which helps the native animals, like frogs and fish.

Put these words in the correct spaces. The first one is done for you.

two stormwater released untreated sewerage gutters motor kitchens free ocean

There are two waste water systems in cities and towns. There is the _____ system which is waste water from toilets, _____, laundries and bathrooms, and there is the _____ system which collects rainwater from _____ in the roads.

Stormwater is not treated. It runs directly into our rivers and then into the _____.

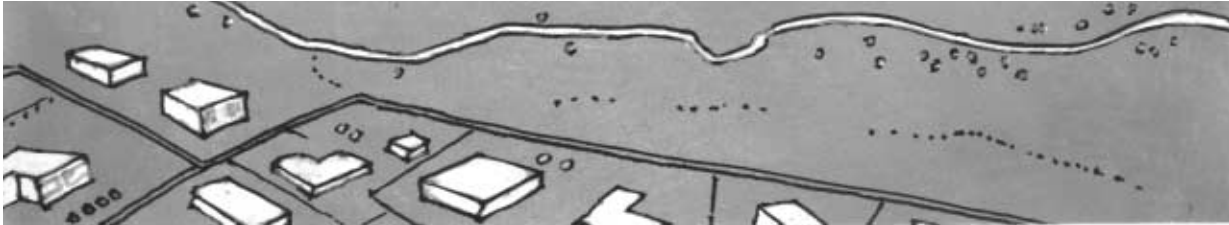
Sewerage is usually treated before it is _____ into the rivers.

It is very important that both these systems are kept _____ from dangerous chemicals including solvents (such as painting products) and oils like _____ oil. Unfortunately, because the storm water system is _____ , everything that is on the street can end up in our rivers.

Discussion Question

Do you think that treated sewerage should go into local creeks?

Where else can it go?



The Industrial Zone at Campbellfield

(Melways p 7)

Close to the Merri Creek at Campbellfield is an industrial zone along the Hume Highway. There are hundreds of concrete buildings. They are warehouses and factories. You can buy trucks, building supplies, new doors, kitchens, steel, bathroom fittings, car parts,

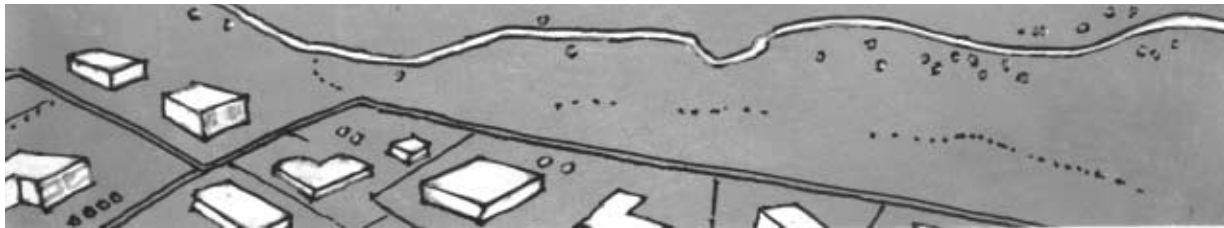
white goods, tools, nuts and bolts, tyres, almost anything.

It is not a beautiful place. There are lots of fences and empty areas between buildings. When it rains, rubbish and chemicals such as oil and detergent mix with the water and flow into the Merri Creek.

Cities are divided into **industrial**, **commercial** and **residential** areas. Decide if the following places are *usually* found in residential, commercial or industrial areas (they might be found in more than one area).

- | | | |
|---------------|--------------------|-------------------|
| a milk bar | a house | a train station |
| a car factory | a skyscraper | a town hall |
| a flat | a service station | a market |
| a tram depot | a reception centre | a shopping centre |
| a warehouse | a bank | a library |

Industrial	Commerical	Residential



Galada Tambore Reserve

(Melways p 7 K6)

Just south of the industrial estate in Campbellfield, the banks of the Merri Creek are very steep. From Hatty Circuit you can walk to the **edge** of the riverbank and look down on the creek. You are about 50 metres feet above the creek and you can see for miles. This is a beautiful spot. Looking ahead you can see grasslands and Mt Dandenong to the east.

In late winter, wattle trees turn **vivid** yellow. On the rocky banks, you might see a **skink** or two, warming up in the sun. Large numbers of indigenous (locally native) trees have been planted here **recently**, to stop **soil erosion** and to **attract** native birds. This is a very important site because Aboriginal tools have been found in this area.



Unfortunately, people sometimes ride motorbikes or four wheel drives along here. This is illegal because it can cause erosion and the wheels of these vehicles might destroy the **remains** of Aboriginal camps. Sometimes people steal cars and push them off the river banks into the creek at night. It is difficult and expensive to clean up.

Put these words in the correct sentences

recently attract remains edge vivid indigenous

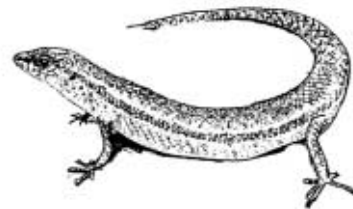
Trees and plants have flowers to _____ insects.

Don't drive too close to the _____ of the road!

_____ trees have been planted here _____ .

The _____ of the camp were some ashes and beer cans.

In Queensland, the sea is a _____ blue colour.



Comprehension Questions

How high above the creek is Galada Tambore Reserve? _____

What can you see to the east? _____

Why is it an important area? _____

Why have native trees been planted here recently? _____

'The wattle trees **turn vivid yellow**'. What do you think makes the trees turn yellow?



Bakers Rd, Coburg

(Melways p 17 H8)

As the creek gets closer to the city, it is affected by roads, houses and people.

At some places along the creek there are signs that tell people how to **look after** the area.

“Dogs are allowed off leash in this park under supervision. Please collect dog litter.”

“Motorcycles Prohibited!”

“Please take your litter with you”

People ride bicycles or jog along paths next to the creek. The **lawns** and willow trees are bright green. It looks pleasant and peaceful. But these grasses and trees are not good for the area. **Weeds** are **taking over** and the native plants are disappearing.



After it rains, rubbish from stormwater flows into the creek. It hangs from the branches of the trees like **filthy** washing.

Match the word to its correct meaning. The first one is done for you.

affected	clothes that have been washed
to look after	the water from streets that flows into our creeks and rivers
lawn	very dirty
weeds	to care for something
stormwater	area of short grass
filthy	plants that are bad for other plants
washing (noun)	changed by something
taking over	becoming powerful or increasing



Willows Along the Creek

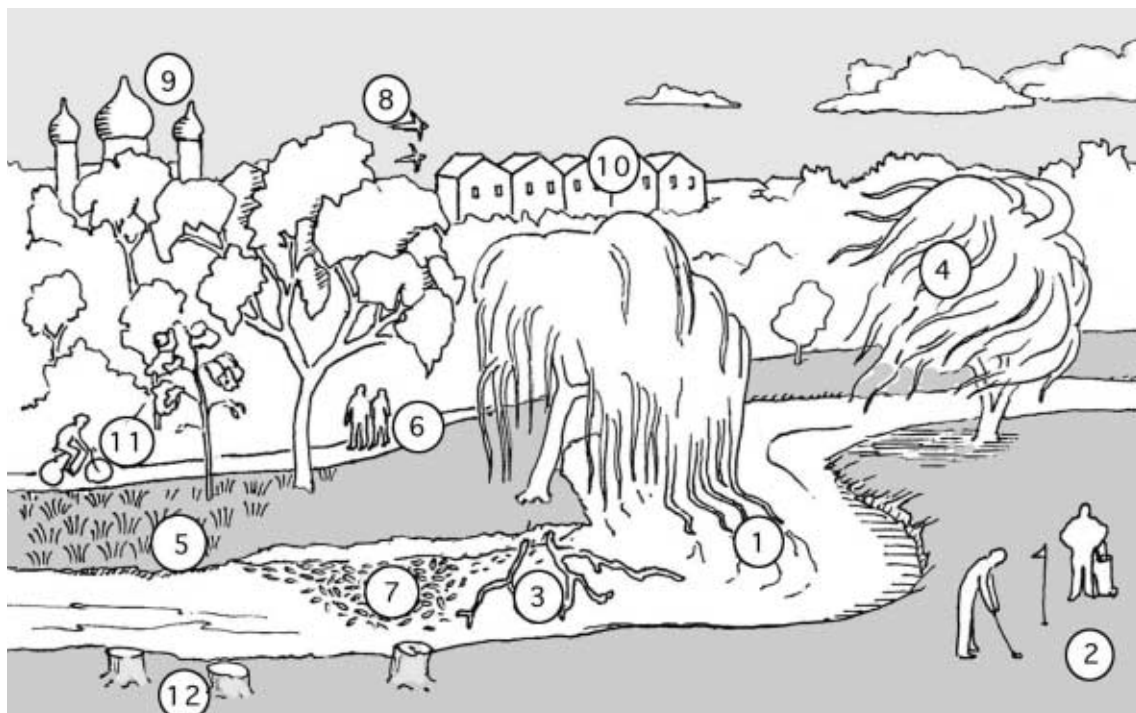
Read this story about willow trees and write the numbers in the picture next to the correct phrase. (The first one is done for you)

For years, Big beautiful willow trees have grown along the Merri Creek. Willows were brought to Australia by English migrants to remind them of home. **Their long leaves sway in the wind** (4). **Some of the leaves drag in the water** (). They create plenty of shade in the summer and are very romantic. In Thornbury **people play golf on the golf course next to the creek** ().

On the other side, **people cycle along the bicycle track** (), and **couples walk along the footpath** (). There are **some new townhouses** () and a brand **new Russian church** (). Its big golden towers shine brightly in the evening light. The **willow leaves fall into the water** () and their **roots grow into the creek** (). This chokes the creek. In some places, the willows have been replaced with **native trees and grasses** () which will protect the Australian animals. **Next to the creek are tree stumps** () where some willows used to be. It looks terrible. Everything is bare. The beautiful willow trees have been cut down, but they have been cut down to improve the water quality in the creek.

Are these statements true or false?

The willow trees have been growing for a year.	TRUE / FALSE
The bicycle track is on the opposite side of the river to the golf course.	TRUE / FALSE
The willow trees have been cut down because they are ugly.	TRUE / FALSE
The Russian church has been there for years and years.	TRUE / FALSE
The roots from the trees grow into the creek.	TRUE / FALSE
Native trees will be planted to replace the willows.	TRUE / FALSE
The willow trees do not lose their leaves.	TRUE / FALSE

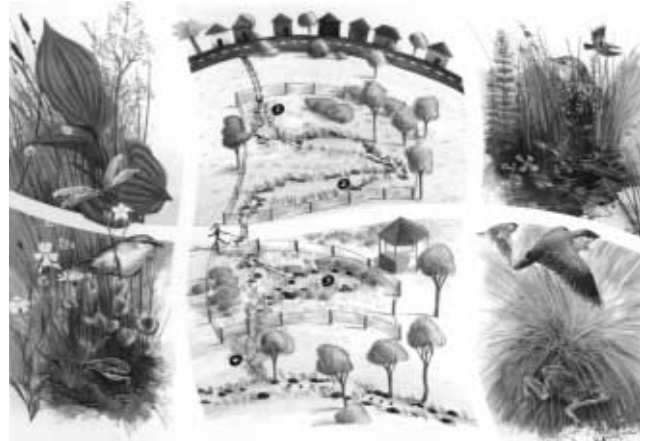


Hall Reserve Wetlands

(Melways p 30 G12)

At Clifton Hill, the creek starts to get close to the Yarra River. On the eastern side, the banks of the creek are high and rocky. On the western side the walking path goes under Heidelberg Road and through a park. In the park is a **rotunda**. If you stop here, you feel like you are in the country. You can't see any buildings or cars. The hum of the traffic is far away. You can hear the **trickle** of the creek. Native birds call. They are looking for a mate or looking for **twigs** to make a **nest**. White **butterflies** **flutter** around.

Near the rotunda is a fenced off area. Behind the fence is an area of native grass and almost **invisible** amongst the grass are pools of water covered in **aquatic** plants. This is a wetland. There used to be short European grass here. The wetland was **created** to help



bring native birds and plants back to the area. Stormwater from the roads and **drains** in the area flows into the wetland. The pools of water **filter** and **absorb** some of the waste that usually flow into the creek. This helps keep the creek clean.

Which of these items **filters** and which **absorbs**?

tea strainer sponge mop sieve dishcloth

Match the verb in the first column with the verb in the second column that has a similar meaning. The first one is done for you.

absorb	strain
flutter	trickle
create	make
start	fly
search	soak up
look for	begin
filter	flow

In groups, sort these nouns into 4 different categories. There are 5 words in each category. What do you think are the different categories?

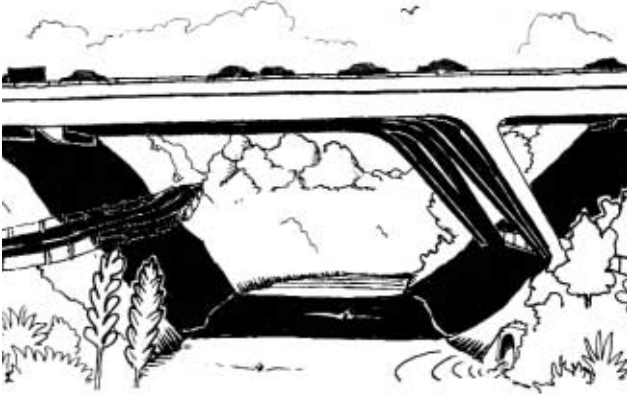
puddle, ants, rotunda, barbecue, leaves.

picnic table, bench, butterflies, twigs.

dragonflies, branches, roots, fence, shade.

lake, bees, spiders, pond, wetland, pool.

Dights Falls Reserve



Like most creeks, the Merri Creek **flows** into a bigger river. At Dights Falls, the Merri Creek enters the Yarra River. At this **point**, the Yarra River is only 5 kilometres from the sea. Dights Falls is a very rocky **section** of the creek. The river **winds** between the steep river banks.

Before the Europeans arrived, this used to be a meeting place for Aboriginal communities. Now developers are trying to make money from the valuable land along the river. New apartment buildings are being built next to old factories. You can hear the **hammering** noises. A crane rises high above the horizon.

Next to the river, there is a small park and lots of native plants. A man pushes a pram along the footpath. An old black dog follows him. It is a beautiful spot, but there is a **constant** noise which is very **distracting**. Over the Merri creek is the Eastern Freeway overpass. It looks like someone has put a huge concrete table over the creek. It is dark underneath, and kids have spray-painted graffiti on the concrete.

Cars zoom along all day and night. The noise is like the wind in a storm. Smoke from the cars goes into the air and the heavy **particles** fall to the ground. When it rains, chemicals, oil and rubber **seep** into the soil and then into the creek. The government wants to build more freeways like this one.



Match the words that have a similar meaning. The first one is done for you.

distracting	curves
constant	knocking
spot	place
hammering	goes into
enters	continuous
winds	annoying

Comprehension Questions

What is being built near the river? _____

What did the Aboriginal communities use this area for? _____

What have some kids done underneath the freeway overpass? _____

What flows into the creek when it rains? _____

What makes the 'distracting noise'? _____