

Extras - Contents

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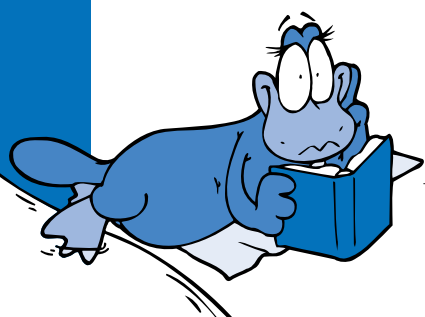
Record Sheet

USE the following grid to record observations of students' processes and products.

Activity

Student

Comments

[illegible]

Waterways Quiz

Use the following cards to conduct a fun salinity quiz!

<p>Q Name the four catchments in the North Central region of Victoria?</p> <p>A Loddon, Campaspe, Avoca and Avon-Richardson catchments.</p>	<p>Q What is a snag?</p> <p>A A snag is a tree branch or trunk in a waterway.</p>	<p>Q What could happen if all the yabbies in a waterway die?</p> <p>A No food for animals like platypus, tortoises. Less predators for aquatic invertebrates. It affects the whole food chain.</p>
<p>Q Name three local waterways.</p> <p>A Check answers using a local map.</p>	<p>Q What do creeks, wetlands and rivers all have in common?</p> <p>A They are all types of waterways.</p>	<p>Q What are three waterway values?</p> <p>A Recreation, water quality, economic, habitat, water supply, aesthetics.</p>
<p>Q How do water striders walk on water?</p> <p>A They spread their weight across a relatively large area, are light weight and rely on the high surface tension of water.</p>	<p>Q What is a riffle?</p> <p>A A shallow section of river or stream with rapid, (turbulent) flowing water over rocks.</p>	<p>Q What are four threats to waterway health?</p> <p>A Urban stormwater, stock access, irrigation, erosion, exotic plants and animals.</p>
<p>Q What do you call a series of bends in a river?</p> <p>A Meanders.</p>	<p>Q How long does it take for a tree to form a hollow?</p> <p>A 100 years.</p>	<p>Q Which parts of the land show signs of salinity discharge first?</p> <p>A Low points, especially waterways.</p>
<p>Q What are some benefits of having a healthy riparian zone?</p> <p>A Habitat for wildlife, buffer from catchment, shade, food etc.</p>	<p>Q What is an animal with no backbone that lives in waterways called?</p> <p>A Aquatic invertebrate.</p>	<p>Q What is Waterwatch?</p> <p>A A community water quality monitoring and education program that aims to improve waterway health.</p>



Bits And Pieces - Task Cards

USE the following tasks during your waterway studies.

Scattegories

Establish approximately five categories such as the name of a creek/river, an aquatic animal or plant, ways we use waterways and threats to waterways.

A letter of the alphabet is chosen at random and students have a specified time limit to brainstorm something for each category that begins with the chosen letter.

Points are only awarded for original ideas not given by other students.



Twenty Questions

One student is chosen to sit at the front of the class and must think of a mystery item. It might be an aquatic animal or an activity that can be enjoyed at, in or near waterways.

The class only has twenty questions available with which to identify the item. Only yes / no answers can be given, therefore, questions must be phrased appropriately.

Alternatively, the class may know the identity of an item with one student chosen to guess it.



Endless Chain

Name a broad topic such as rivers / creeks, plants or animals, etc.

Begin with an example. Students must add to the list with an example from the category that begins with the last letter of the previous word.

For example, "Let's make an endless chain of aquatic animals". Platypus, Snake, Egret, Trout.



Mix Master

Name two concepts or items that are related in some way. They could have things in common or be opposites. For example, Hollows & Possums, Fish & Detergent, Rubbish Bins & Rivers.

Students are to combine both concepts or items into one sentence.

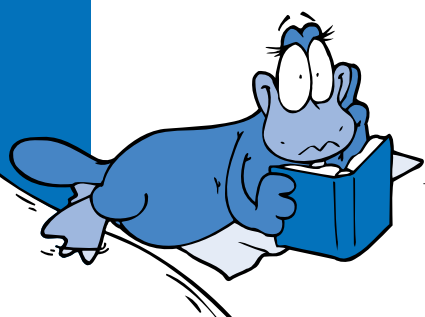
Can students create a variety of sentences using the same prompts?



Ticket Out The Door

This is a good activity to use the few extra minutes at the end of a session or day and promotes meaningful processing of recent learning. It can be completed orally or written on scrap paper and handed in. Questions students might be asked to respond to as a 'ticket out the door' might be:

- What is one thing you learnt today?
- What is one reason why your learning today may help you in the future?
- When you get home, what is one thing you might tell your parents about today?
- Describe one thing you felt good about today.



Waterway Photos

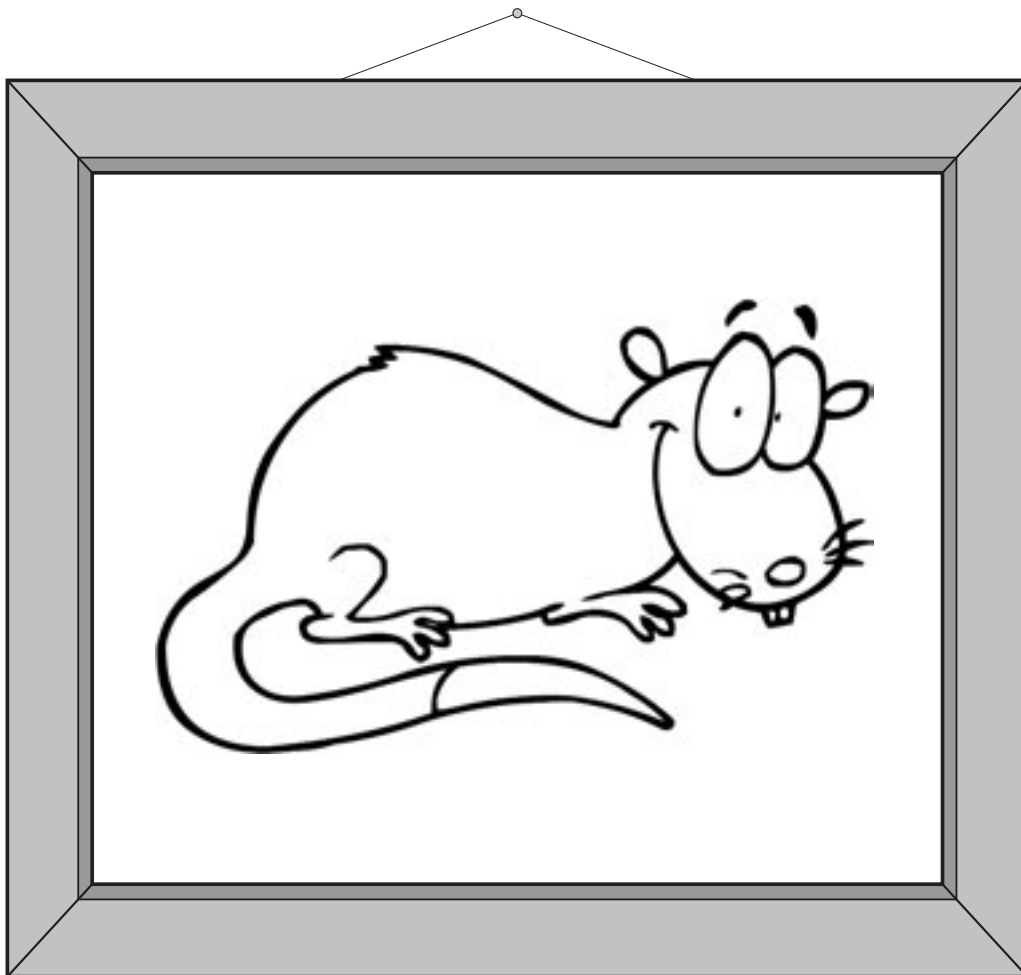
**OPEN
COPY**

the file labelled 'Photos' on the attached CD.

one or multiple photos on a colour printer. These can provide visual stimulation throughout the waterways unit, or during student comprehension activities.

Questions could include:

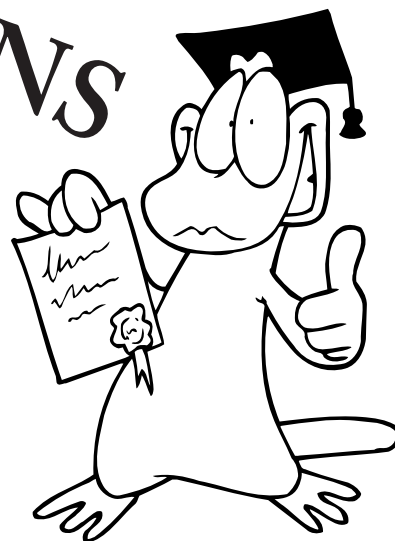
- What potential waterway threats can you see in the picture?
- What waterway values can you see?
- How could you reduce the impact of pollution?
- What positive actions can you identify?
- What messages could you give land users about looking after their waterways?





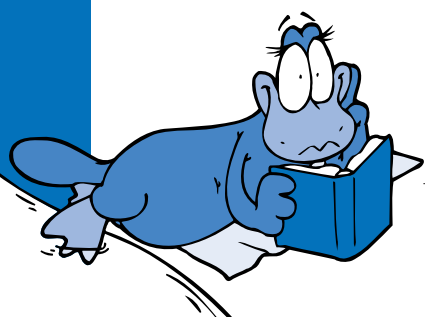
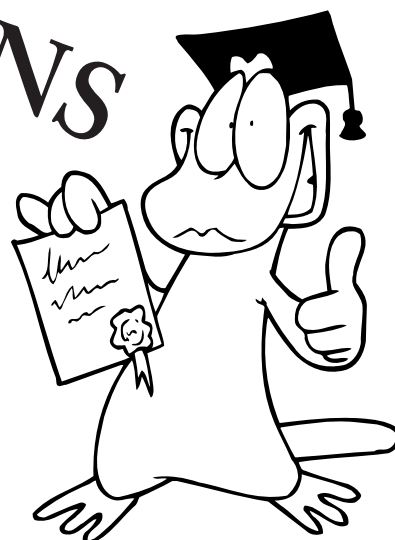
CONGRATULATIONS

You have successfully
completed the
Water Week Program.
You are now armed with
the knowledge necessary to help
manage and preserve health waterways.



CONGRATULATIONS

You have successfully
completed the
Water Week Program.
You are now armed with
the knowledge necessary to help
manage and preserve health waterways.





WHAT AN EFFORT

Congratulations
on walking a waterway.
You have successfully walked
a total of ____ kilometres.

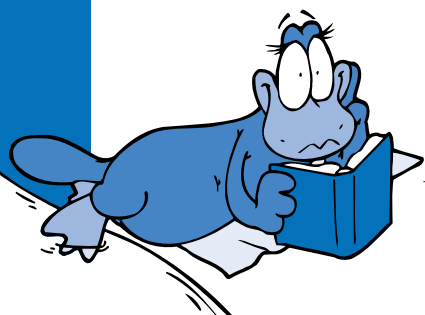
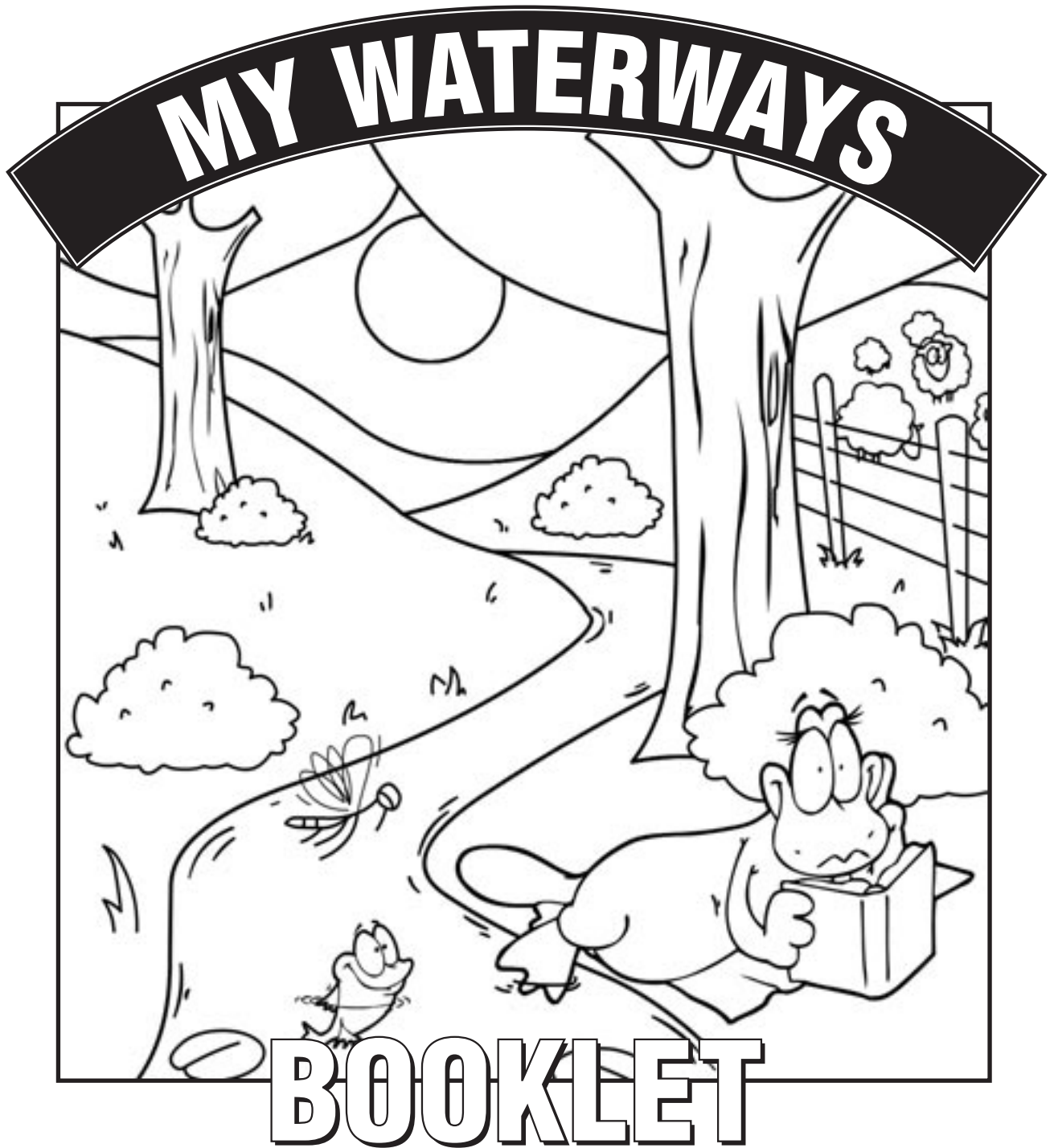


WHAT AN EFFORT

Congratulations
on walking a waterway.
You have successfully walked
a total of ____ kilometres.



Name _____



Waterways And Me - Student Worksheet

Name _____



Things I know about waterways

Things I feel about waterways

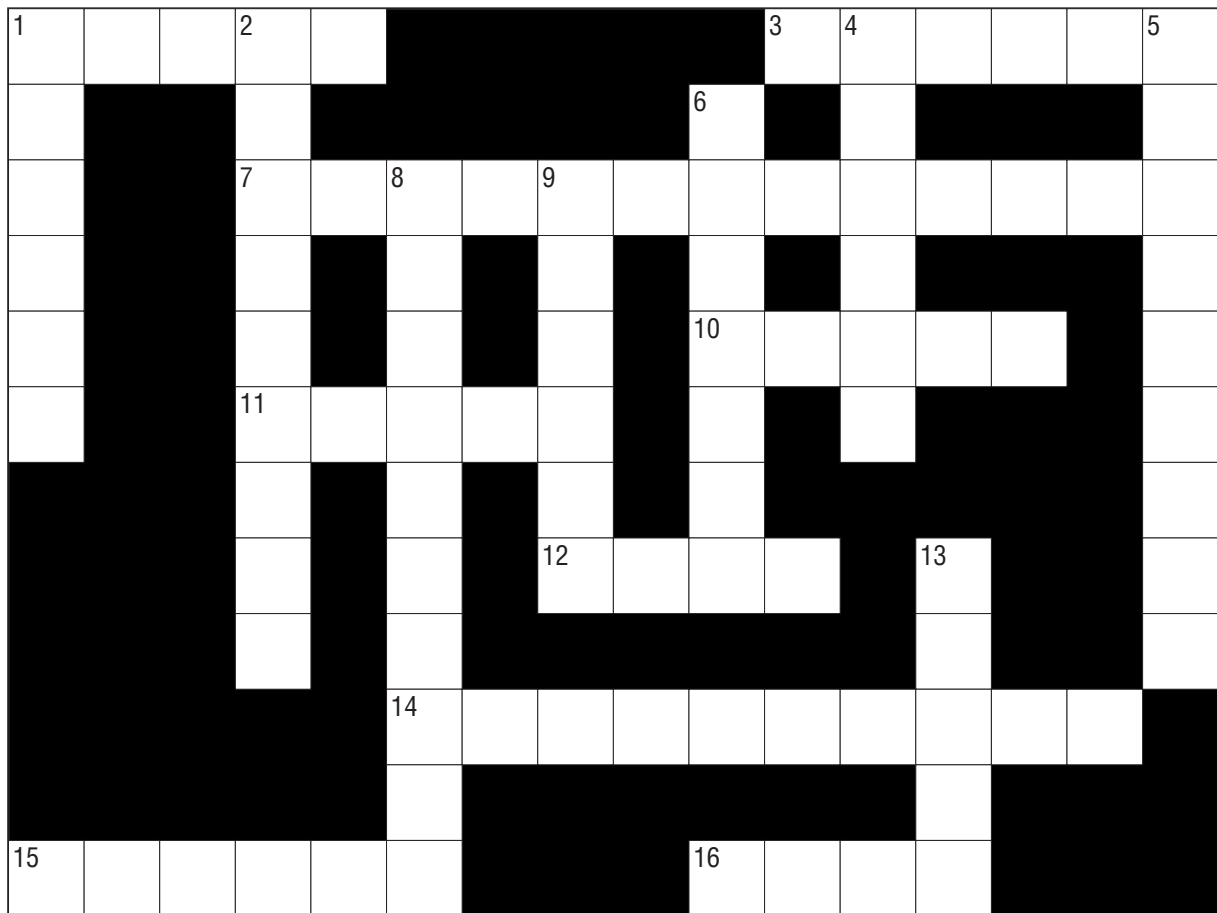
Things I want to find out about waterways

Ways I could find out about waterways



Crossword - Student Worksheet

Name _____



ACROSS

- 1 The place where a river enters the ocean
- 3 A water _____ can walk on water without even getting it's feet wet !
- 7 Macro _____ are small creatures found in healthy waterways.
- 10 Farmers should fence _____ out of riparian land to reduce erosion of the river bank.
- 11 Planting _____ is a great way to improve the health of waterways in your local area.
- 12 How much pollution should there be in a river ?
- 14 _____ alters flow patterns by providing water for agriculture in usually dry summers.
- 15 One of the four catchments in the North Central Region is the _____ .
- 16 Aquatic animals can become _____ when toxic chemicals find their way into our rivers.

DOWN

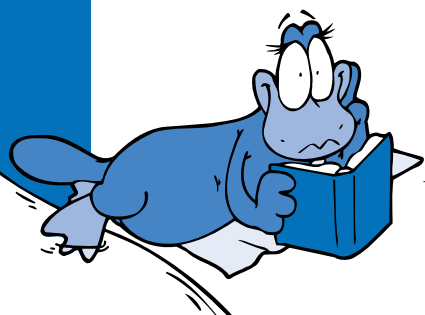
- 1 All rivers in the North Central Region flow northwards and many eventually flow into the _____ River.
- 2 A river that joins another is called a _____ .
- 4 The Eastern Rosella is a type of _____ that nests in the hollows of riverside trees.
- 5 Rivers are valuable natural _____ that we must preserve for future generations.
- 6 Surface _____ creates an invisible 'skin' that enables small creatures to walk on water.
- 8 Riparian _____ is crucial to water quality and the health of aquatic fauna & flora.
- 9 The removal of snags is one _____ why Murray Cod populations are declining.
- 13 Waterways provide us with clean water to _____ .

Across 1 mouth, 3 spider, 7 invertebrates, 10 stock, 11 trees, 12 none, 14 irrigation, 15 loddon, 16 sick.
Down 1 Murray, 2 tributary, 4 parrot, 5 resources, 6 tension, 8 vegetation, 9 reason, 13 drink.

COVER AND COPY

Across

Down



Find-A-Word - Student Worksheet 1

Name _____



Avon-Richardson Catchment

CIRCLE each letter of the words on the right as you find them in the grid. Remember that words may appear horizontally, vertically, diagonally or even backwards !!

Do You Know... which Indigenous people originally lived, hunted and traveled in this catchment?

To find out, scan each row of the grid from left to right and list the letters that are not coloured.

Answer _____

W	T	H	L	L	U	B	N	H	O	J	E	S	D	J	A
A	N	E	Y	N	A	B	L	A	D	J	K	W	A	W	R
L	T	U	R	R	U	N	G	I	A	N	A	E	D	A	J
L	A	R	R	E	E	D	Y	R	N	D	R	D	C	N	W
A	L	A	A	I	D	J	A	L	I	D	O	E	A	D	E
L	A	J	T	Y	C	R	I	B	E	S	C	S	L	E	P
O	K	A	T	R	N	H	A	P	D	O	I	T	L	R	O
O	E	R	I	M	O	O	A	N	U	A	L	L	A	S	C
N	B	D	Y	U	O	R	R	R	C	C	U	P	W	O	E
R	U	I	I	D	A	E	S	S	D	D	T	A	A	N	P
A	L	N	H	D	E	E	A	R	L	S	E	V	D	A	O
M	O	E	I	Y	S	U	R	R	O	A	O	O	D	U	C
N	K	S	D	I	N	G	T	H	E	A	G	N	A	V	E
O	E	M	E	H	C	T	A	W	N	-	S	O	R	I	K
C	H	A	R	D	R	E	N	K	L	U	A	F	O	S	A
O	N	R	I	B	A	N	Y	E	N	O	N	G	V	N	L
E	R	L	I	T	C	H	F	I	E	L	D	B	A	S	I
N	S	E	L	O	H	R	E	T	A	W	Y	K	C	O	R

Waterways

ANDERSON
AVON
BLIND
FAULKNER
JARDINES
JOHN BULL
LAKE BULOKE
LAKE COPE COPE
MUDDY
PARADISE
RACECOURSE
REEDY
RICHARDSON
ROCKY
SANDY
SWEDES
WALLALOO
WATERHOLES

Towns

BANYENONG
CALLAWADDA
CORAK
LITCHFIELD
MARNOO
TRAYNORS LAGOON
WATCHEM

The Djanyabadij Awarrung and Jardwadjali tribes traditionally occupied the area surrounding the Avon-Richardson River Basin

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Find-A-Word - Student Worksheet 2

Name _____



Avoca Catchment

CIRCLE each letter of the words on the right as you find them in the grid. Remember that words may appear horizontally, vertically, diagonally or even backwards !!

Did You Know... that during the Gold Rush, the catchment's population exploded? Can you guess how many people lived in Avoca during that period?

To find out, scan each row of the grid from left to right and list the letters that are not coloured.

Answer _____

R	A	U	V	N	I	L	U	A	P	R	A	T	O	C	C
E	A	M	W	A	A	S	H	L	A	M	R	A	M	O	H
D	W	E	H	L	A	H	S	L	A	T	Y	S	M	S	E
B	Y	L	E	L	C	O	T	E	T	O	A	A	Y	D	R
A	C	D	B	I	O	M	O	R	U	N	T	E	F	F	R
N	H	D	O	F	V	E	E	R	D	R	L	T	Y	O	Y
K	E	I	T	H	A	B	H	Y	K	O	M	S	O	F	T
C	P	M	U	T	L	U	S	T	F	A	N	T	D	R	R
A	R	O	P	A	E	S	T	R	E	B	L	A	L	E	E
B	O	S	L	R	O	H	I	N	E	S	P	R	L	H	E
E	O	Q	I	T	N	W	E	S	T	E	R	N	N	T	N
E	F	U	I	S	A	B	I	L	A	E	B	A	I	U	O
G	E	I	G	O	L	N	E	L	G	H	T	U	A	R	T
E	E	T	N	S	R	E	L	D	D	I	F	D	T	F	L
E	E	O	O	P	A	R	A	C	I	D	F	T	N	Y	R
N	U	M	B	E	R	T	W	O	F	O	O	U	U	R	A
E	R	T	A	E	H	T	I	H	P	M	A	G	O	!	H
F	E	N	T	O	N	S	S	L	L	E	B	P	M	A	C

Waterways

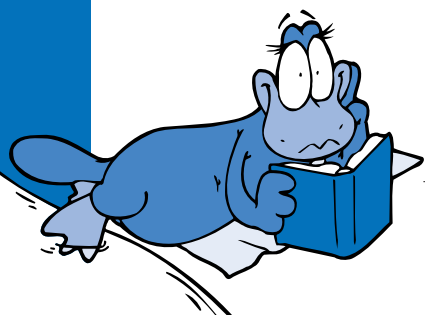
AVOCA
AMPHITHEATRE
BACK
CAMPBELLS
CARAPOOEE
CHERRY TREE
FENTONS
FIDDLERS
FOLEYS
GLENLOGIE
HINES
HOMEBUSH
LALBERT
MIDDLE
MOSQUITO
MOUNTAIN
NUMBER TWO
REDBANK
RUTHERFORDS
SANDY
SLATY
SMOKY
ST ARNAUD
STRATHFILLAN
TARPAULIN
TYRRELL
WEHLA
WESTERN
WILD DOG

Towns

BEALIBA
CHARLTON
EMU
LALBERT
MARMAL
WYCHEPROOF

Avoca was home to about forty thousand people in eighteen fifty four!

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Find-A-Word - Student Worksheet 3

Name _____



Campaspe Catchment

CIRCLE each letter of the words on the right as you find them in the grid. Remember that words may appear horizontally, vertically, diagonally or even backwards !!

Did You Know... the Campaspe, like all waterways in our region that begin in the Great Dividing Range, flows north. Where else does the Campaspe travel on it's journey ?

To find out, scan each row of the grid from left to right and list the letters that are not coloured.

Answer _____

S	M	O	K	E	R	S	I	T	E	N	A	D	I	T	M
J	I	M	J	I	M	O	S	Q	U	I	T	O	T	E	I
E	A	R	S	A	S	T	O	N	E	J	U	G	N	E	L
W	M	D	E	L	X	B	A	S	O	I	O	B	A	C	K
S	I	T	L	S	L	M	H	N	N	O	L	K	P	H	I
H	A	A	A	A	L	E	E	I	D	K	T	Y	I	U	N
A	F	E	C	H	E	S	A	A	S	U	G	N	P	C	G
R	O	K	O	P	E	T	L	A	H	P	R	E	E	A	Y
P	R	P	W	P	N	L	N	E	A	E	A	T	R	L	A
M	E	A	O	U	C	D	L	K	T	A	N	O	S	G	R
U	S	T	O	N	Y	G	E	S	N	D	I	N	O	E	D
H	T	M	E	N	N	P	E	D	S	A	T	D	T	R	E
S	C	H	U	I	S	W	E	E	N	I	E	S	C	O	A
L	S	M	H	A	U	R	U	R	O	V	I	C	M	M	R
E	E	S	P	A	Y	R	M	F	I	V	E	M	I	L	E
M	X	M	Y	R	T	L	E	T	L	A	R	T	N	E	C
A	A	M	T	P	L	E	A	S	A	N	T	I	V	E	R
C	O	L	I	B	A	N	D	R	A	Y	K	C	O	T	S

Waterways

AXE
BACK
BLACK
CAMELS HUMP
CAMPASPE
CENTRAL
COLIBAN
EMU
FALLS
FIVE MILE
FOREST
GOODALL
GRANITE
JEWS HARP
JIM JIM
JONES
MCIVOR
MIA MIA
MILKING YARD
MOSQUITO
MOUNTAIN
MT IDA
MT PLEASANT
MYRTLE
NATIVE DOG
PIPERS
POHLMAN
SANDY
SHEEPWASH
SHINGLE HUT
SMOKERS
STOCKYARD
STONE JUG
STONY
SWEENIES
WESTERN

Towns

ECHUCA
ELMORE
KYNETON

It enters and exits Lake Eppalock and ends at Echuca's Murray River.

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Find-A-Word - Student Worksheet 4

Name _____



Loddon Catchment

CIRCLE each letter of the words on the right as you find them in the grid. Remember that words may be appear horizontally, vertically, diagonally or even backwards !!

Did You Know... the Loddon River joins the Murray River? Do you know what else flows with the river water each year and is added to the mighty Murray?

To find out, scan each row of the grid from left to right and list the letters that are not coloured.

Answer _____

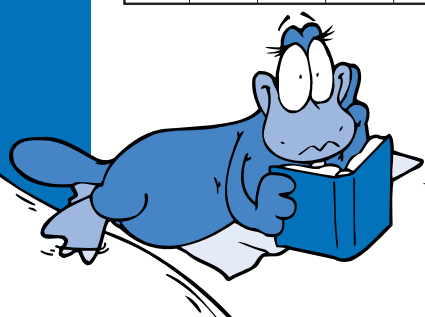
T	A	R	R	E	N	G	O	W	E	R	Y	A	N	F	Y
Y	A	R	R	A	N	M	B	F	A	O	R	U	H	W	L
E	D	R	H	I	K	S	U	U	O	L	D	U	C	O	L
N	A	R	R	A	G	I	L	R	R	R	L	N	R	L	U
O	I	P	T	K	D	X	L	R	P	N	B	A	I	L	G
T	S	E	L	I	E	M	A	K	B	H	T	E	B	E	Y
S	Y	G	A	N	E	I	B	I	E	D	Y	S	S	Y	A
E	H	O	S	G	R	L	U	N	T	N	A	R	C	J	R
M	I	L	R	O	T	E	L	Y	B	N	N	E	O	I	D
I	L	D	O	W	A	D	F	P	E	E	D	Y	O	M	N
L	L	A	T	E	E	I	A	A	T	P	C	D	K	C	U
I	O	E	C	R	T	R	F	N	T	E	O	Y	T	R	O
T	R	D	O	H	I	O	U	I	S	S	A	H	N	O	B
T	V	D	D	N	O	T	O	E	E	L	T	T	A	W	N
L	I	N	U	O	D	O	E	L	C	M	E	S	O	H	F
E	L	D	G	U	N	B	O	W	E	R	S	A	L	I	T
B	L	I	N	D	A	P	O	O	R	A	L	L	U	T	!
E	E	K	N	A	Y	P	O	R	C	U	P	I	N	E	!

Waterways

BET BET
BIRCH
BLIND
BOUNDARY
BULLABUL
BURNED
COOK
DAISY HILL
DEAD LOG
DEEP
DOCTORS
DRY
DUNIRA
DYERS
FORBES
GULLY
GUNBOWER
HOPE
JIM CROW
JOYCES
KILKENNY
KINGOWER
KINYANIEL
LIMESTONE
LITTLE
LODDON
MCLEOD
MURPHY
NARRAGIL
ORVILLE
PORCUPINE
RYAN
SALT
SIX MILE
SPRING
TARRENGOWER
TEA TREE
TULLAROOP
WALLABY
WATTLE
WHITE
YANDOIT
YANKEE
YARRAN
YELLOW

Four hundred and fifty thousand tonnes of salt!

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Acrostic Poem - Student Worksheet

Name _____



COMPLETE the acrostic poem below by making words or sentences using each letter.

W

A

T

E

R

W

A

Y

S



Brain Boosters - Student Worksheet

Name _____



USE the following activities at any time, for any length of time, by any number of students.

Your local council removes all snags from your local waterway. Think of **3 positive consequences** and **3 negative consequences** of this action.

A school of fish have been found floating dead on the surface of a local creek. Give **3 possible explanations** for this.

Name 5 things that a **platypus** and **fishing rod** have in common.

List a plant or animal that lives in, on or near waterways for each letter of the alphabet.

What if all rivers are declared 'out of bounds' to all people and stock for ten years. Give **10 different consequences**.

Can you **list a threat to waterways** for each letter of the alphabet?

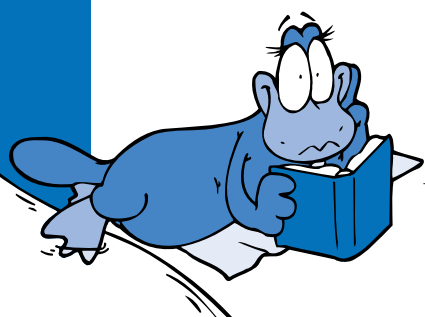
Think of **10 creative ways** to reuse a **plastic bag**.

List 5 things that you **cannot** do in a polluted river.

Design a mobile robot that picks up rubbish that pollutes our waterways. **Label the features** of your robot that enables it to collect rubbish from along the bank, on the water's surface and from the riverbed.

Brainstorm 10 techniques to encourage students at your school to participate in tree planting days along your local waterway.

Imagine you are farmer Trevor. You buy land beside a river and plan to develop an environmentally friendly farm, grazing cattle and growing wheat. **Work out all of the ways you can make sure you do not damage the river, but still have a productive farm.**

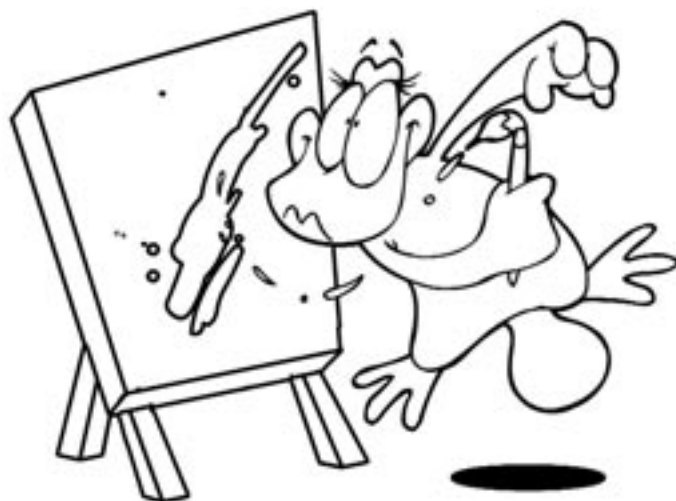


Waterways Cartoons - Student Worksheet

Name _____



COLOUR in these four waterways cartoons.

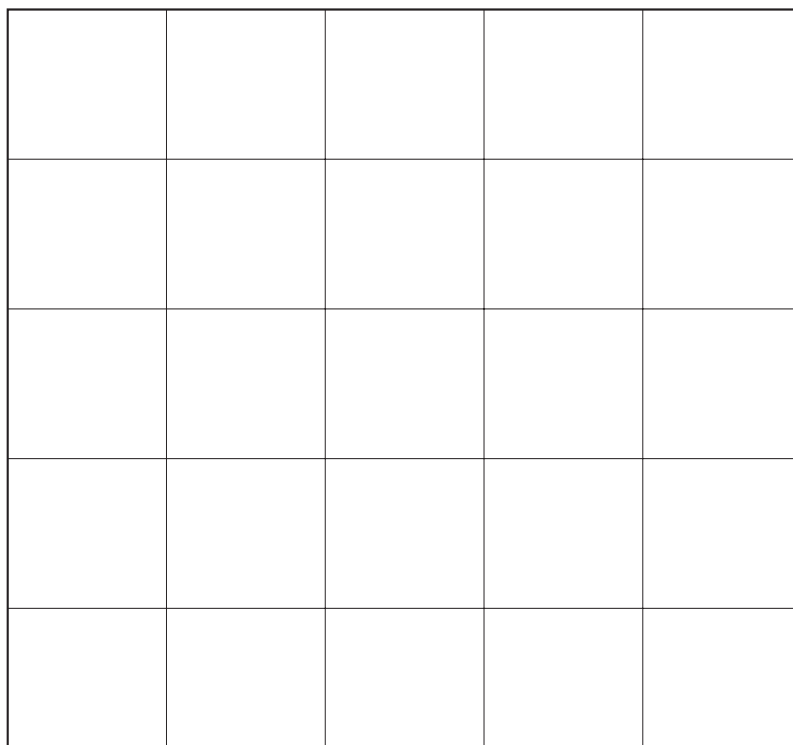
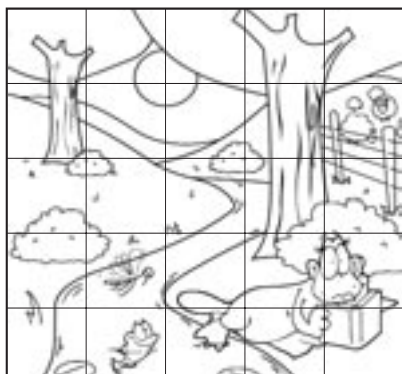


Waterways To Scale - Student Worksheet

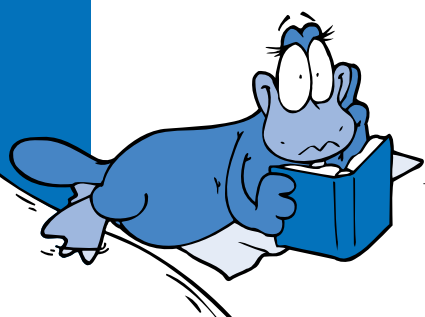
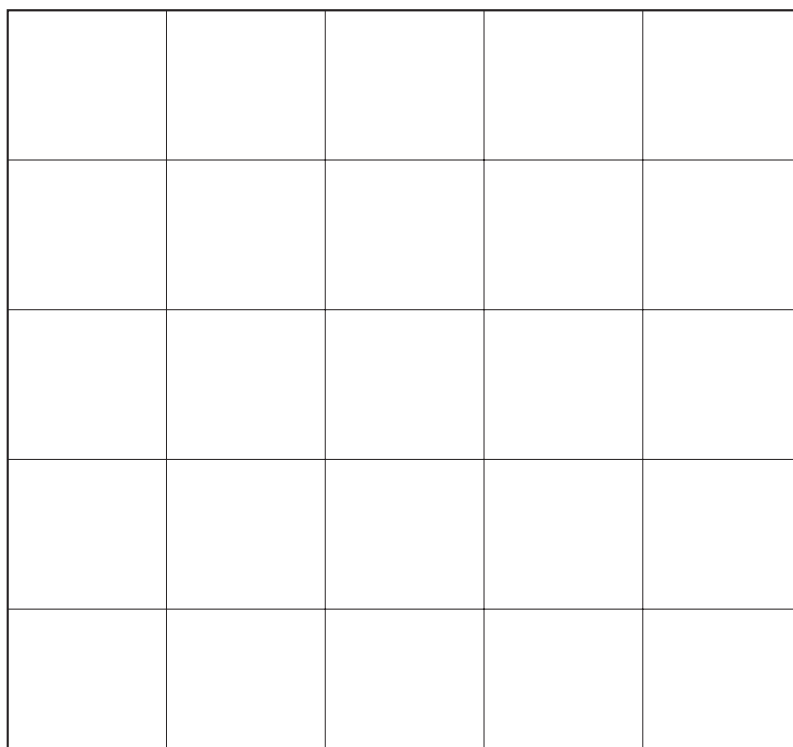
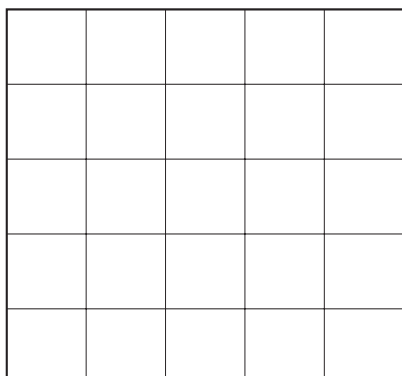
Name _____



USE the grid below to help you enlarge this picture and draw it onto the grid to the right.

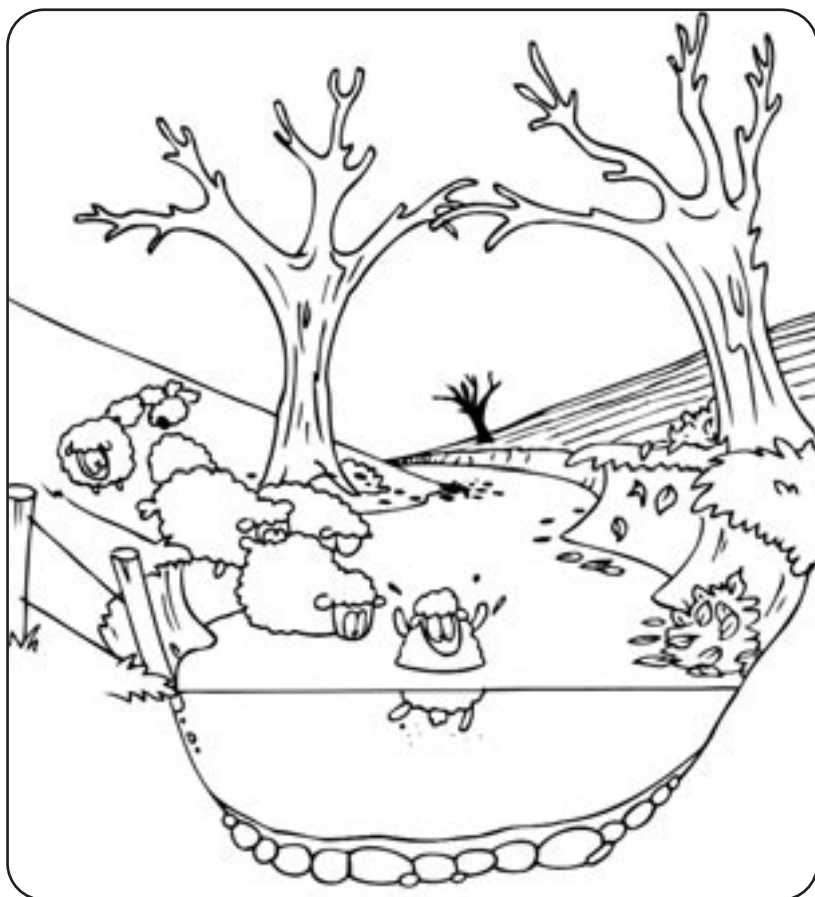


DRAW your own design below and ask a friend to enlarge it.



Spot the Difference - Student Worksheet

Name _____



Both scenes below depict a typical waterway, however one landholder is much better at preventing damage and keeping their waterways healthy. List the differences you spot in the space provided. Maybe you could add more details to challenge a friend?

Disaster Downs



Eco Farm



Link It All Together - Student Worksheet

Name _____



One important step in learning how to care for our waterways is understanding the link between cause and effect. Your actions today will affect what happens in the future. See if you can link the statements together from the two lists below to show cause and effect.

Today (causes)

Your cat is free to roam outside at night.

A dam is built across a nearby river.

People fail to clean up pet droppings.

Stock are free to access waterways.

Hollowed riverside trees are felled for timber.

Plastic bags and rubbish is left lying in the street.

Snags are removed from the riverbed.

Your car leaves oil patches on your driveway.

Carp are released into a river system.

Fishermen ignore bag limit regulations.

Riparian vegetation is removed to grow crops.

Tomorrow (effects)

Nutrients are released into waterways causing toxic blue-green algal blooms.

Less shade causes water temperature to rise and affects the growth rates of fish species.

Platypus and other aquatic animals become entangled and die.

Fish have less places to hide from predators.

Native birds are killed.

Possums and parrots are left without homes.

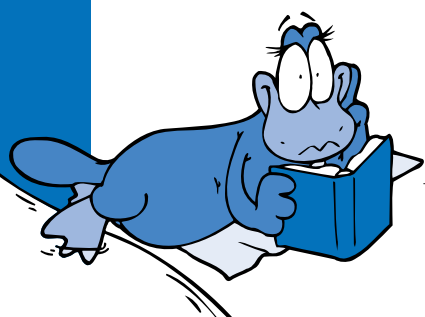
Populations decline as fewer fish are left to breed and multiply.

Hard hooves disturb river banks, causing erosion and increase sediment in waterways.

Waters become turbid because of these river bed feeders.

A slick forms on the surface of waterways and aquatic plants and animals cannot breathe.

Fish species are unable to migrate up and downstream and may not breed.



3 Rs Bingo - Student Worksheet

Name _____



You can complete this challenge with peers from in your class, across the school or as a homework task with family and friends.

Our waterways are precious. Many species of plants and animals depend on creeks and rivers for their survival. We depend on them to supply clean drinking water, for agriculture, transport, tourism and recreation.

Our creeks, wetlands and rivers are under increasing pressure but there are many things we can all do to conserve water, prevent pollution and care for our waterways.

ASK around to find people who conserve resources and minimise stormwater pollution by reducing, reusing or recycling.

FIND a different person for every action and write their name under each statement.

FILL the entire grid and you have achieved BINGO!

Find someone who . . .

Refuses plastic bags while shopping	Always disposes of rubbish in bins	Never pours oil down the drain	Keep carp if caught while fishing	Takes quick showers
Recycles aluminium cans and glass bottles	Uses phosphate free washing detergent / powder	Goes camping beside rivers and lakes	Leaves picnic / camping areas just as they were found	Uses manure to naturally fertilise their garden
Picks up rubbish voluntarily when they see it	Has a water-wise native garden	Refuses the delivery of junk mail to their letterbox	Washes their car on lawn	Has turned off a dripping tap or fixed leaking taps
Composts weeds and garden scraps	Takes own firewood when camping	Throws fish back if they are not needed	Mulches their garden	Has built a fence to protect native trees
Takes cloth or string bags to the supermarket for shopping	Has participated in a tree-planting day	Uses biodegradable dishwashing liquid	Keeps their cat locked inside at night	Does not let the water run while brushing their teeth



Waterway Birdlife - Student Worksheet

Name _____



USE

posters, books, field guides or your own observations and knowledge to sketch the birds that can be found diving in deep water, wading in the shallows, perching on snags, scratching on the bank, flying in the air, feeding among branches and checking out hollows.

