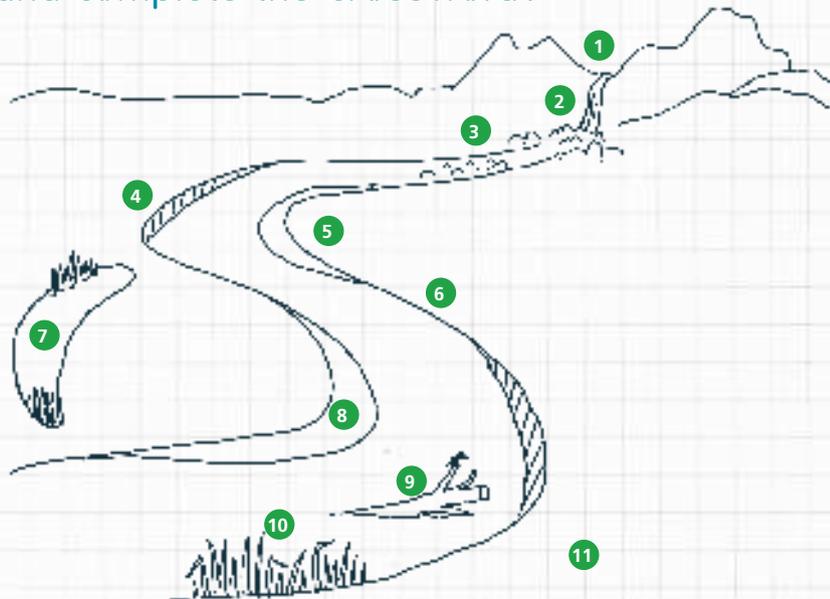


JUNIOR RANGERS RIVER ACTIVITY BOOK

JUNIORRANGERS.COM.AU

GO WITH THE FLOW.

From tiny creeks in the mountains, to mighty rivers moving out to sea, rivers shape our landscape. Can you name the different parts of this river, and complete the crossword?



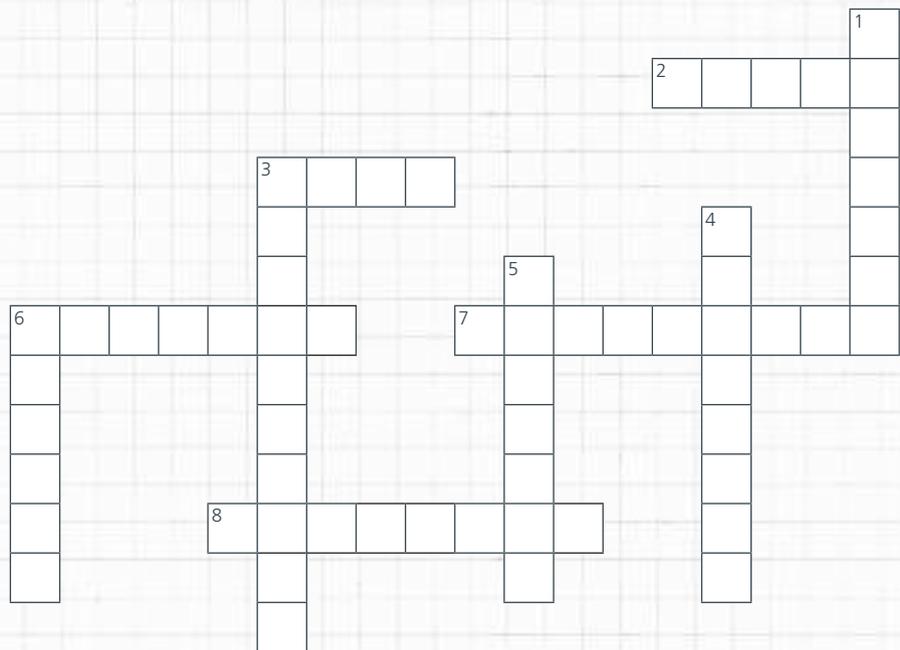
- BANK
- BEND
- FLOODPLAIN
- OXBOW LAKE
- RAPIDS
- REEDS
- SANDBAR
- SNAG
- UNDERCUT BANK
- VALLEY
- WATERFALL



CROSSWORD.

DOWN.

1. Where a freshwater river meets the saltwater ocean.
3. Where the water goes when the river cannot hold any more and bursts its banks.
4. Tiny pieces of material (like rock, soil or plants) that are carried down the river, sometimes changing the colour of the river.
5. The movement of water in the river. It usually flows in one direction, but...
6. ...sometimes the water flows backwards and forms whirlpool-like...



ACROSS.

2. The name for trees that have fallen into the river, which provide a home, shelter, or a place to rest for insects and fish (also another word for sausages).
3. It is important to manage this so that people, plants and animals all get the water they need.
6. This happens when water, wind or gravity move rocks or earth from one place to another.
7. The cloudiness of the water, caused by the tiny pieces of material carried down the river (4 down).
8. This is created when the river drops lots of sand and gravel in one place.



Answers are on the inside back page.



RIVERS OF LIFE.



Many animals live along our rivers – under the water, on the riverbank, or up in the trees. How many animals can you find hiding in this grid?



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

Words can go across (left to right) or down (top to bottom) and the same letter may be used more than once.

- | | |
|---------------|--------------|
| BLACK SWAN | MOSQUITO |
| CATFISH | MURRAY COD |
| CRAYFISH | PARROT |
| DARTER | PELICAN |
| DIVING BEETLE | PERCH |
| DRAGONFLY | PLATYPUS |
| DUCK | PYTHON |
| EEL | RAINBOW FISH |
| FROG | RAKALI |
| GECKO | SNAIL |
| GLIDER | SPOONBILL |
| GUDGEON | TURTLE |
| IBIS | WATERBOATMAN |
| KINGFISHER | WATER DRAGON |
| KOALA | YABBY |



DID YOU KNOW?



River Red Gums require regular flooding to thrive. As Australia's human population grows, so does our need for water – for drinking, washing, farming, and so on. How many uses of water can you think of?

The more water we take away from our rivers, the less there is for plants and wildlife. So, how do we look after our River Red Gum forests and everything that lives in them?

Along the Murray River, water is deliberately released into wetlands to imitate seasonal flooding. This means that sometimes parts of our parks are underwater and people can't visit them, but **environmental watering** keeps our River Red Gum forests healthy for everyone to enjoy in the future.



HAPPY CAMPING.



Camping can be lots of fun. Next time you go, help us look after our beautiful rivers by being a responsible camper. Colour this picture and identify which things you should / shouldn't do when you go camping.



- | | |
|--|---|
| 1 DO / DON'T Bring firewood with you | 9 DO / DON'T Keep your dog on a leash |
| 2 DO / DON'T Burn hollow logs | 10 DO / DON'T Leave the park as you find it |
| 3 DO / DON'T Camp at least 20m away from the riverbank | 11 DO / DON'T Light fires only in the fireplaces provided |
| 4 DO / DON'T Camp under trees or branches | 12 DO / DON'T Make as much noise as possible |
| 5 DO / DON'T Create a rope swing | 13 DO / DON'T Make a mud slide on the banks of the river |
| 6 DO / DON'T Dispose of dirty water away from the river | 14 DO / DON'T Relax and enjoy the river |
| 7 DO / DON'T Feed wildlife | 15 DO / DON'T Swim when an adult isn't watching |
| 8 DO / DON'T Keep your campsite clean and take rubbish home with you | |



Can you find 9 things in the picture that are bad for the environment?



HAVE FUN AND STAY SAFE IN THE RIVER.

Parks Victoria uses these signs to help you find good places to enjoy activities, and to let you know if something is dangerous or prohibited (not allowed). Can you match the sign to its meaning?

- A  (1) No swimming
- B  (2) Swimming is allowed
- C  (3) Warning: strong currents
- D  (4) Warning: limbs may fall take care
- E  (5) Fishing is allowed
- F  (6) Warning: deep water
- G  (7) Warning: submerged obstacles
- H  (8) No diving
- I  (9) Warning: flash flooding
- J (10) No fishing

- F 
- G 
- H 
- I 
- J 

Can you see the pattern?

What do the different colours and shapes mean?

1. Yellow and black diamond-shaped signs tell us NOT TO DO SOMETHING / TO BE CAREFUL.
2. Square green signs with white symbols tell us about things we CAN / CANNOT do there.
3. A black symbol inside a red circle with a cross through it means we MUST / MUST NOT do something.

Hint:

Parks signs are a bit like traffic signals – green tells us something is ok, yellow means take care, and red means no!

HOW RAPIDLY CAN YOU SAY THESE RIVER-RELATED TONGUE-TWISTERS?

Watch out! Don't trip over your tongue!

- Rustle of trees and ripple of rain, roaring of rivers across the plain.
- Rowing down the roaring river the racing raft rolled over.
- The really rapid river rushed through the rustling reeds.
- The raft ran round the raging rapids, racing really fast.



DO I BELONG?



Beneath the water are many different plants and animals.

Some naturally belong in our waterways, and we call them native species. Others have been introduced by humans and can cause problems

by competing with native species for food and homes, or by eating them! When native or introduced species cause problems we call them pests.

Can you identify which species are native to our rivers and which ones are introduced pests?



CABOMBA (FANWORT)



CARP



LACE MONITOR



MOIRA GRASS



MOSQUITOFISH



MURRAY COD



MURRAY RIVER CRAYFISH



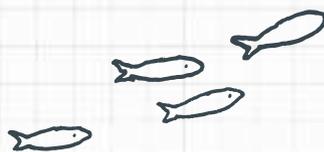
RABBIT



REDFIN



SHORT-NECKED TURTLE



DON'T WASTE OUR RIVERS.



Litter is a big problem in our parks and rivers. Animals sometimes eat plastic or cigarette butts because they look like food, or get tangled and trapped in forgotten fishing nets or lines. Almost everything that goes into our rivers will eventually end up out at sea or get washed up on our beautiful beaches. Plastic never fully breaks down – it just breaks into smaller and smaller pieces.

You can learn more about how long it takes different rubbish to break down in the Junior Ranger Marine Activity Book available on juniorrangers.com.au.

Do you know what to do if you catch a pest fish? Learn more about fishing at vfa.vic.gov.au (Victoria) or www.dpi.nsw.gov.au/fishing (Murray River).

DID YOU KNOW?

Macpac is the Principal Partner of our Junior Rangers program – supporting the next generation of nature lovers.

Visit macpac.com.au for family outdoor adventure inspiration

DID YOU KNOW?

Adult Murray Cod can reach 80-100cm. The largest recorded was 1.8 metres long! What an incredible fish!



ANSWERS.

Go with the flow.

1. Valley, 2. Waterfall, 3. Rapids, 4. Undercut bank, 5. Bend, 6. Bank, 7. Oxbow lake, 8. Sandbar, 9. Snag, 10. Reeds, 11. Floodplain

Crossword.

DOWN 1. Estuary, 3. Floodplain, 4. Sediment, 5. Current, 6. Eddies. ACROSS 2. Snags, 3. Flow, 6. Erosion, 7. Turbidity, 8. Sandbank

Happy Camping:

DO: 1, 3, 8, 9 (You are not allowed to bring dogs into national parks, but there are some other types of parks where you can bring them. Please keep your dog on a leash at campsites, so it doesn't chase wildlife or annoy other campers), 10, 11, 14

DON'T: 2. Hollow logs provide homes and shelter for animals, 4 & 5. Trees and branches can fall unexpectedly, 6. Clean water = healthy river, 7. Human food is bad for animals, and it can change their behaviour and sometimes make them aggressive, 12. Keep noise to a minimum so you don't disturb the wildlife or other campers, 13. It causes erosion and can damage the homes of animals living in the riverbank, 15. Have fun but stay safe!



9 things in the picture that are bad for the environment:

1. Breaking branches, 2. Burning hollow logs, 3. Camping too close to the riverbank, 4. Dog chasing wildlife, 5. Feeding birds, 6. Lighting a fire that isn't in a fireplace, 7. Loud radio, 8. Throwing dirty water into the river, 9. Throwing rubbish into the river.

Have fun and stay safe in the river.

A4, B7, C3, D6, E9, F5, G2, H1, I10, J8

1. Yellow and black diamond-shaped signs tell us TO BE CAREFUL.
2. Square green signs with white symbols tell us about things we CAN do there.
3. A black symbol inside a red circle with a cross through it means we MUST NOT do something.

Do I belong?

PEST = Cabomba (fast growing water weed, chokes lakes and rivers, blocks sunlight, restricts movement of animals and boats), Carp and Redfin (eat lots of water bugs and sometimes native fish), Rabbit (burrows damage river banks and disturb Aboriginal remains), Mosquitofish (eat fish eggs, tadpoles, and water bugs, attack other fish). If you catch a pest fish, do not throw it back in the water.



BECOME A CITIZEN SCIENTIST.

Take photos of the animals you see and upload them to www.inaturalist.org to help scientists and park managers understand when and where these animals occur.

BORN TO EXPLORE.



Junior Rangers are born to explore. If you have an interest in nature, animals and the outdoors then Junior Rangers is for you.

Junior Ranger activities are led by a park ranger and are designed to get children outdoors, have fun and learn about Victoria's wonderful parks.

Ranger led activities are available during school holidays in many parks across the state.

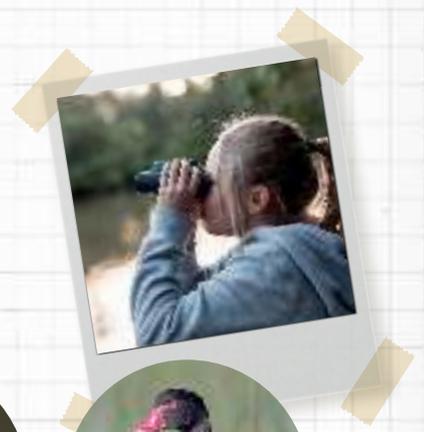
Junior Ranger activities that you can do anytime with your family in a park are also available, as well as animal fact files, games and other environmental activities.

Visit juniorrangers.com.au for more information.



RIVER TREASURE HUNT.

Take this checklist with you next time you go to the river and see how many things you can find.



BOAT



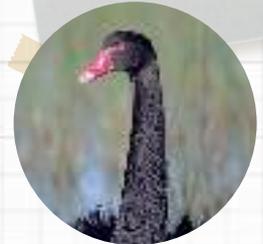
CANOE



COCKATOO/CORELLA



DAMSEL/DAGONFLY



DUCK OR SWAN



EGRET OR HERON



FISH



FISHER(WO)MAN



FROG



KANGAROO/WALLABY



KOALA



MIDDEN



NESTING HOLE



PICNIC TABLE



REEDS



REPTILE



RIVER RED GUM



SAND



SCAR TREE



TURTLE

DID YOU KNOW?

- You can find evidence of Aboriginal people's long connection to country along many of Victoria's rivers:
- Middens are mounds of old, broken shells or bones where people gathered to eat.
- Scar Trees are trees that have had bark removed to make canoes, containers, shelters and shields.
- Please respect these remarkable cultural features and leave them undisturbed.