

Rivers are fun!

Activity Book for the Western Cape
Foundation Phase Learners (grade 1-3)



Teachers Facilitation Guide

Dear Educator

We hope that you find this booklet useful and that your learners enjoy learning about water and rivers. Please read this guide carefully, as it provides you with important information.

Learning Outcomes in the Foundation Phase

This activity book can be used by learners in all three Foundation Phase grades (grade 1-3). Certain tasks have more activities assigned to them and can be used for either Grade 2 or 3 learners. Teachers can adapt tasks (and facilitate them) to suit particular learner needs. The activity book can be used to meet the following learning outcomes:

Languages: LO 3 Reading and Viewing LO 4 Writing LO 5 Thinking and Reasoning.

Mathematics: LO 2 Patterns, Functions and Algebra.

Natural Science: LO 3 Science, Society and the Environment.

Social Science: Geography LO 3 Exploring Issues.

Life Orientation: LO 1 Health Promotion.

A guide to each activity

The duration for teacher assistance will vary depending on the age and capacity of the learners, as well as the task to be undertaken. Teachers should judge the level of facilitation required for each task and adapt it accordingly.

Page 1: Use the activity to highlight water as a basic need. Tell your learners that no one can live without water for very long, especially children. Ask learners to think of something else that they can do with water. Getting your learners to draw themselves using water will ensure learners personalise general information.

Page 2: Animals and humans need water to drink. Water helps us to digest our food, to metabolise (use) the food and for our bodily fluids to exist e.g. blood, saliva. This is also true for animals. Plants use water to photosynthesize (make their own food) and as a structural agent (to hold themselves up). By linking the pictures, ask learners to think of the different needs of animals and plants.

Talk your learners through the water cycle (evaporation, condensation and precipitation). Let them colour the pictures and the arrows to see how the water cycle works. Tell them it is the Sun that drives the water cycle. Grade 2 and 3 learners can label the water cycle.

Page 3: This activity is designed to get learners to see patterns and identify the different ways in which people can get water. Talk to your learners about the different ways and ask them to compare the activities in the picture. Ask learners if it is easier to get water from one source (such as a tap) as opposed to another (such as the river). Ask them to think about the time involved in collecting water from rivers or communal taps. Ask them who they think will use the most water (people with indoor taps always use more water).

Page 4: Although some people get water from taps, all water actually comes from rivers. To get water to taps, we have to build dams on rivers (dams cost money) and then we have to clean the water in purification plants (this also costs money). The clean water is then pumped to homes, shops, factories and offices (again, this costs money). It is important to pay for this water, as it is expensive to get it to the tap. Once the water has been used, it must be cleaned at the sewage works before it can return to the river. Grade 3 learners can write sentences on the discussion you had on this activity.

Page 5: Rivers are great for having fun. People can swim, boat, windsurf, dive, slide and canoe in a river. Ask your learners if they have ever had such an experience/s. Which activities would they like to do if they could? Let learners imagine what a day at the river would be like. Warn them of the dangers of playing in a dirty river, a river in flood or if they cannot swim. Remind them that rivers are powerful and that children can easily be swept away. Grade 3 learners can list the various water activities.

Page 6: Rivers also provide us with food, such as fish. The activity looks at two simple food chains (humans eat fish that eat tadpoles; birds eat frogs that eat insects). Tell your learners what a food chain is and how it works: plants form the base of the food chain; the insects eat the plants; tadpoles eat the insects; fish eat the tadpoles; frogs eat insects and birds eat frogs. Learners should be able to draw a simple line arrow showing the movement of food in the food chain. Humans are also part of this food chain. Grade 2 learners can number the rocks and count them. Grade 3 learners can do a comprehension test on the paragraph given.

Page 7: A fun activity designed to teach patterns. Use it to remind children of the value of fish in the food chain. Grade 3 learners can make sums with the numbers.

How do I use water?

Draw a picture of yourself using water.

Brushing my teeth



Drinking a glass of water

My name is _____.
This is how I use water.

Using the toilet



Washing my hands



Washing my face



Bathing myself



Washing my hair



How do we use our water?

Draw lines to show the links between the pictures.



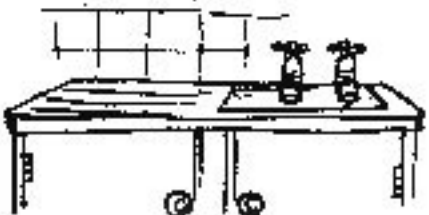
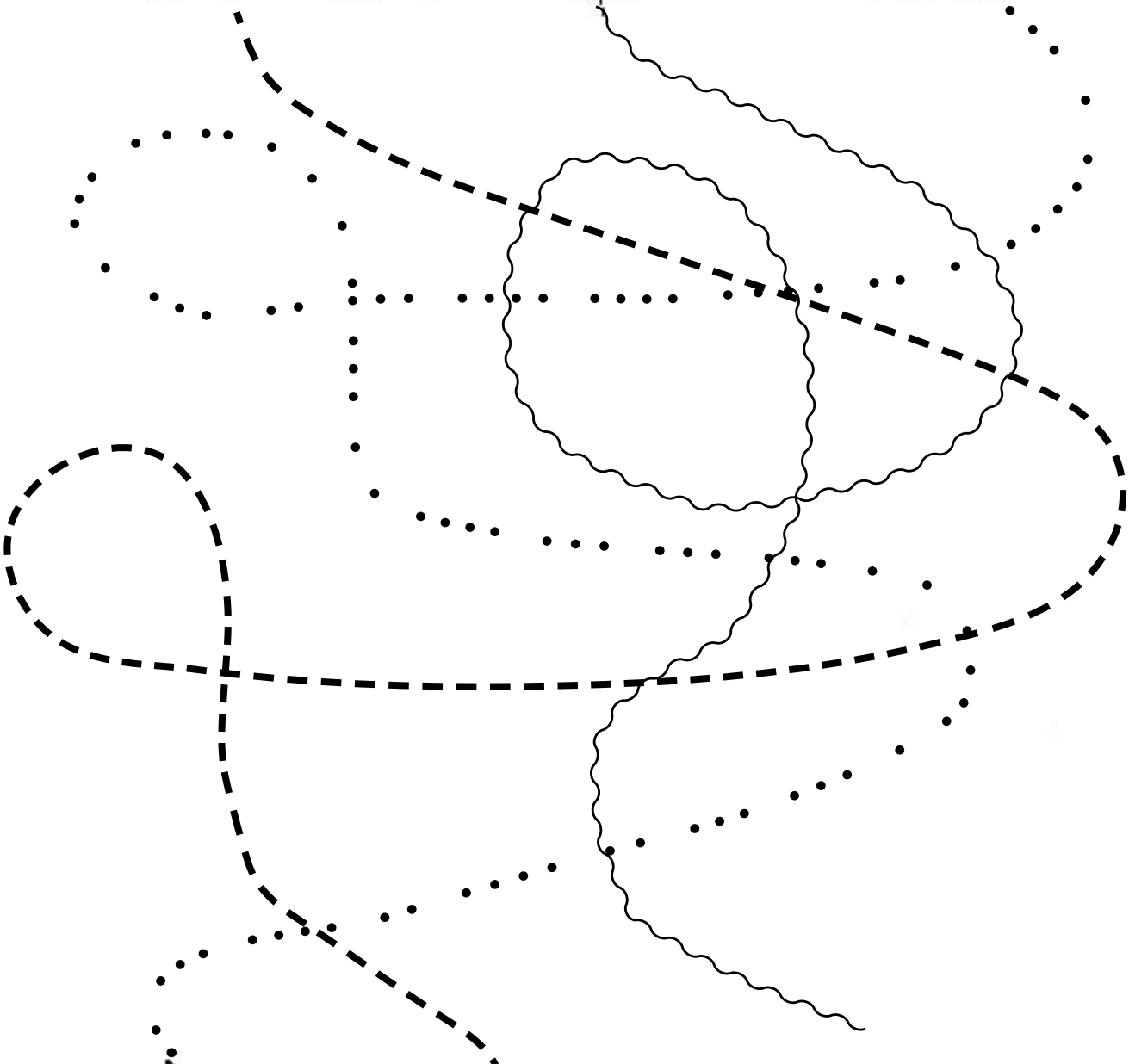
Where does our water come from?

Colour the arrows to see how the water cycle works.



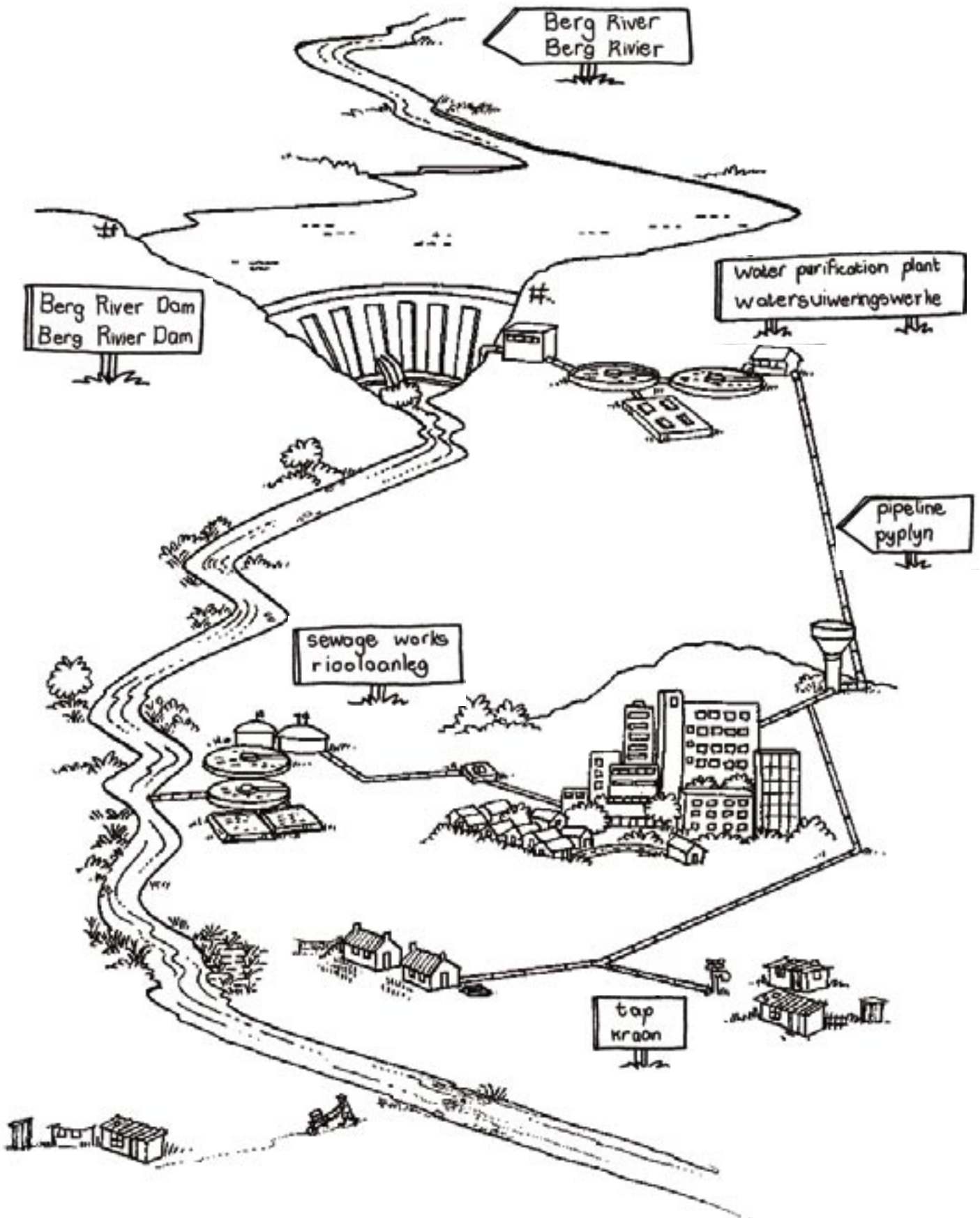
Where does my family get our water?

Colour the lines that will lead your family to the water.



What activities occur along the Berg River?

Follow the route of the river with your finger.
Show your friend what you see along the way.



How can we use the Berg River for fun?

Join the dots to see how we can use the river.

Colour the activity that you would like to do.



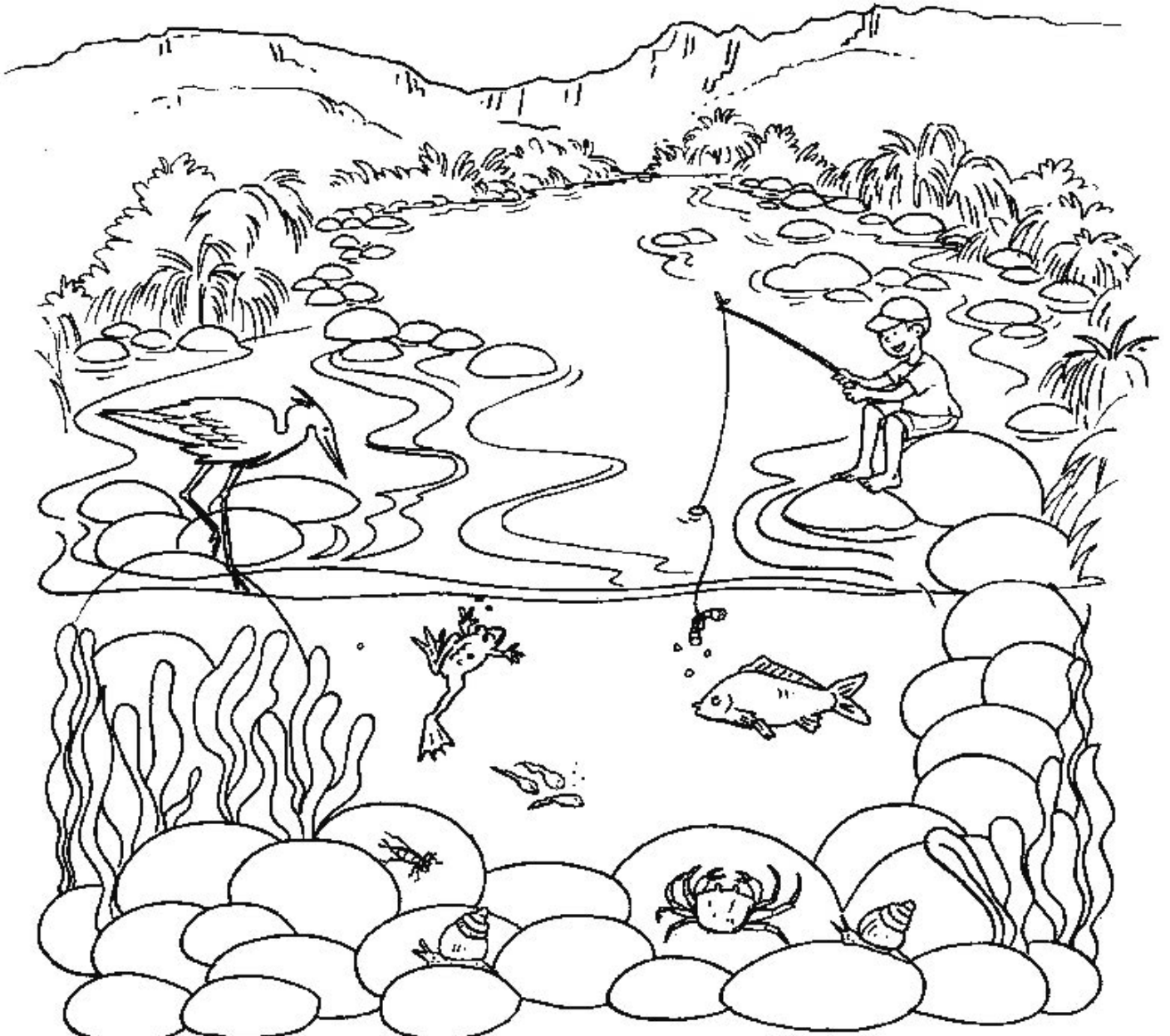
Who eats what in the food chain?

Read the story below. Draw lines in the picture to show who eats what in the food chain.

Michael is hungry. He is trying to catch a fish for lunch. The fish Michael wants to eat is also hungry. But, the fish wants to eat the tadpoles.

A hungry frog also wants lunch. The frog wants to eat the insect. But, the frog must watch out! The bird wants to eat the frog!

In the end, Michael decides to leave the fish alone. Michael runs home to eat his lunch.



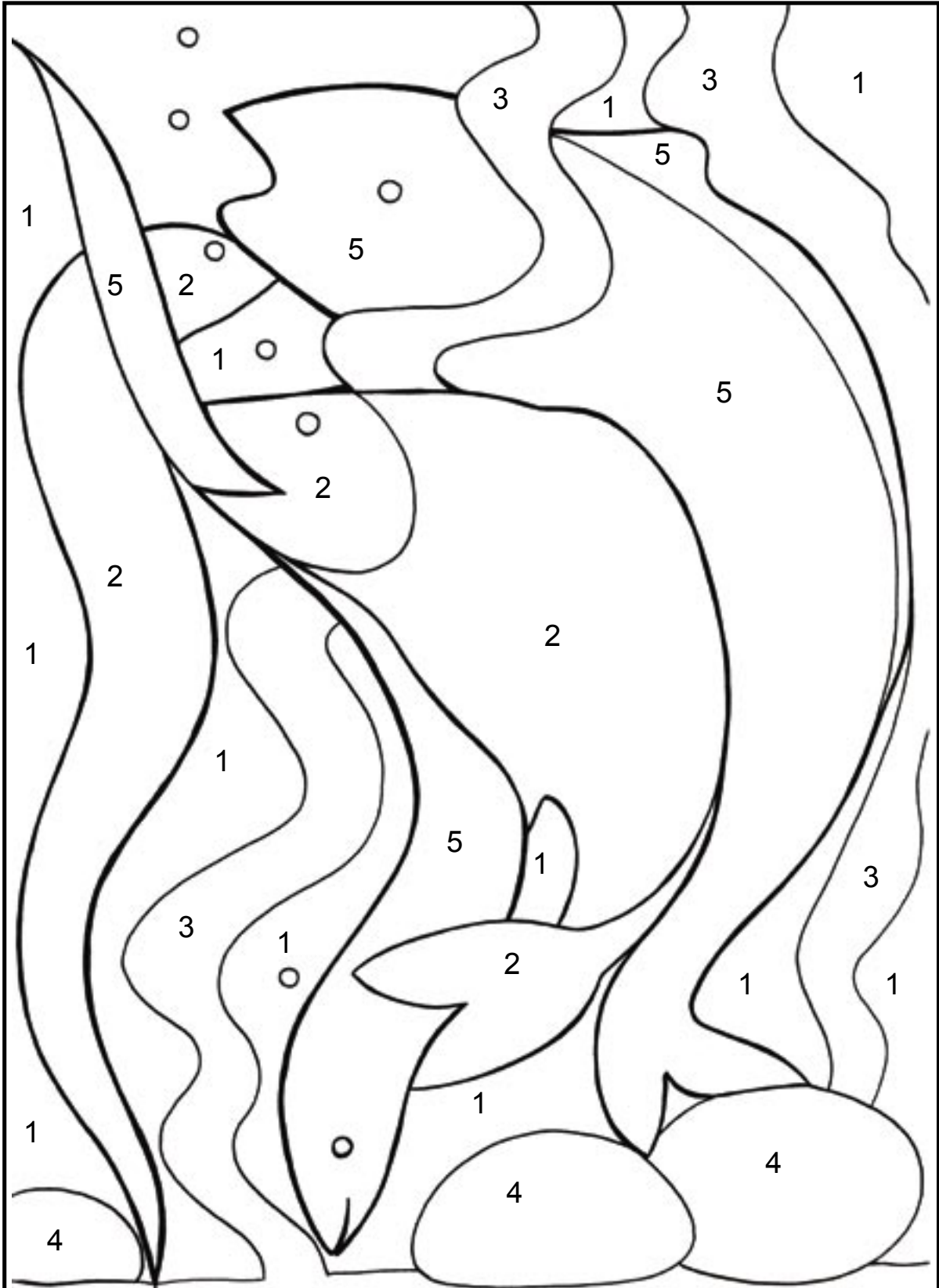
What lives in or near the river?

Colour the picture by matching the number to the colour as shown in the colour guide. How many fish are in the picture?

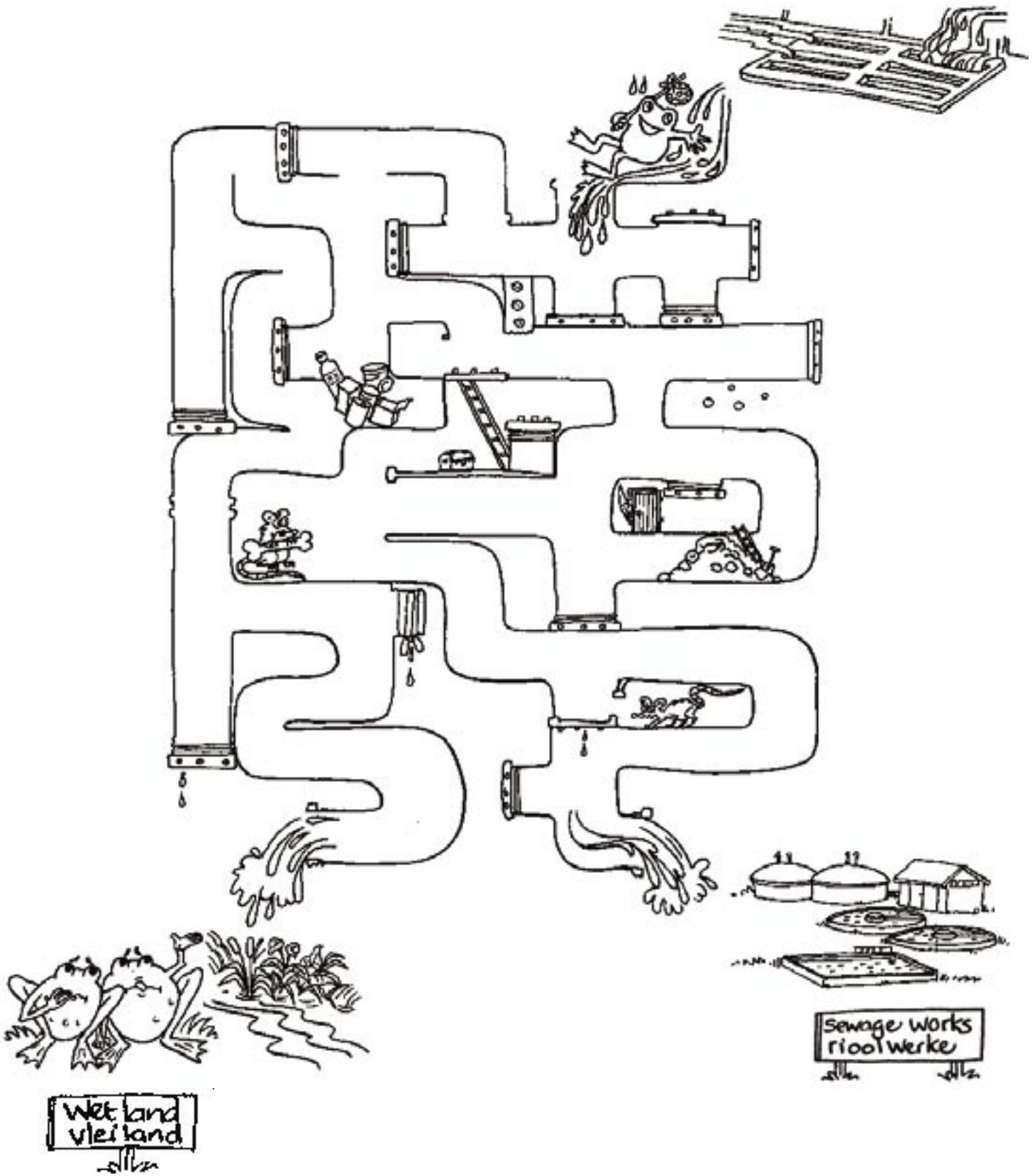
- 1. Blue
- 2. Orange

- 3. Green
- 4. Brown

- 5. Red

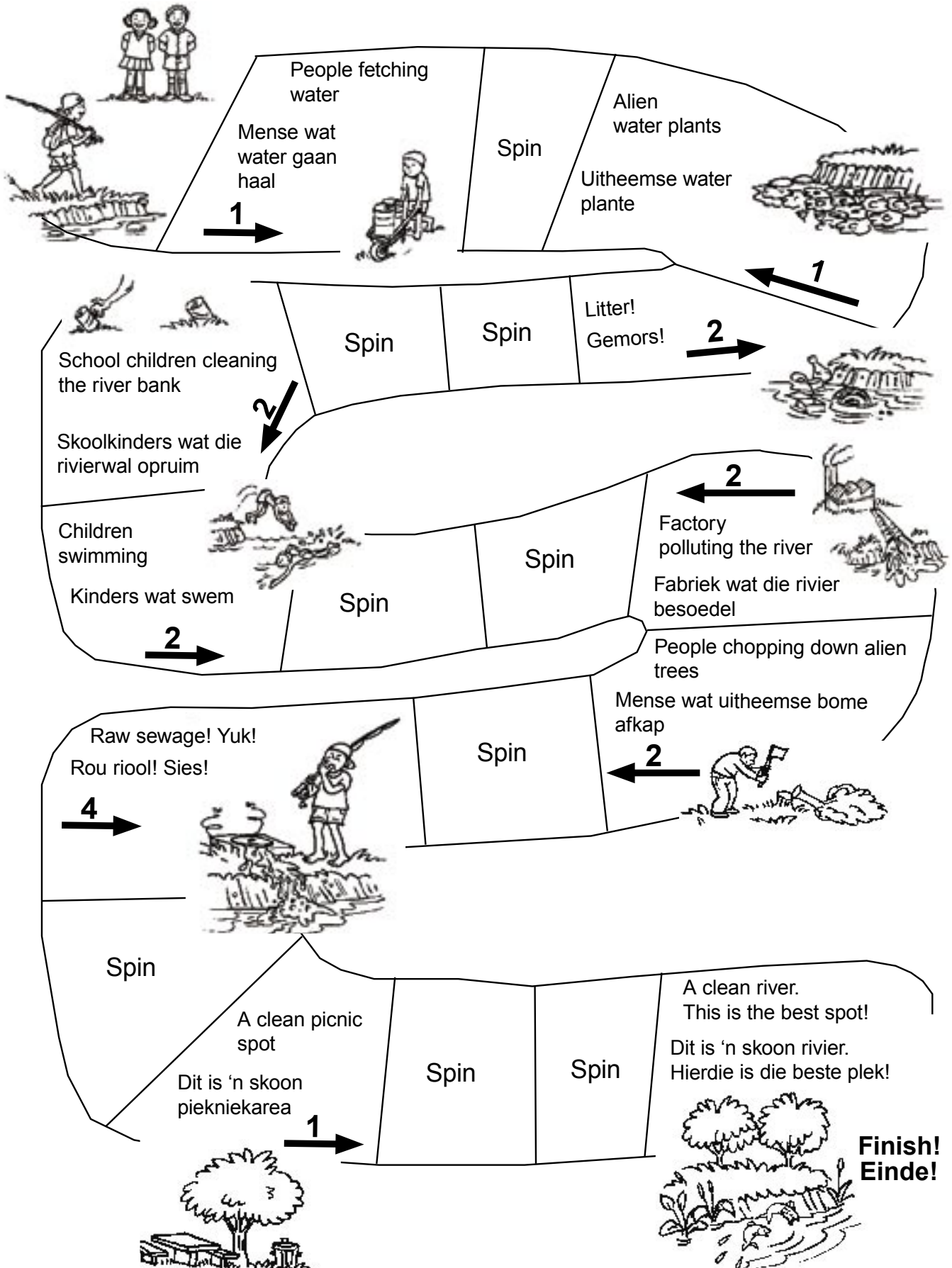


How can Frankie the frog find the wetland?
Frankie is lost! Use your pencil to show which drain pipes he should use to find his family in the wetland.



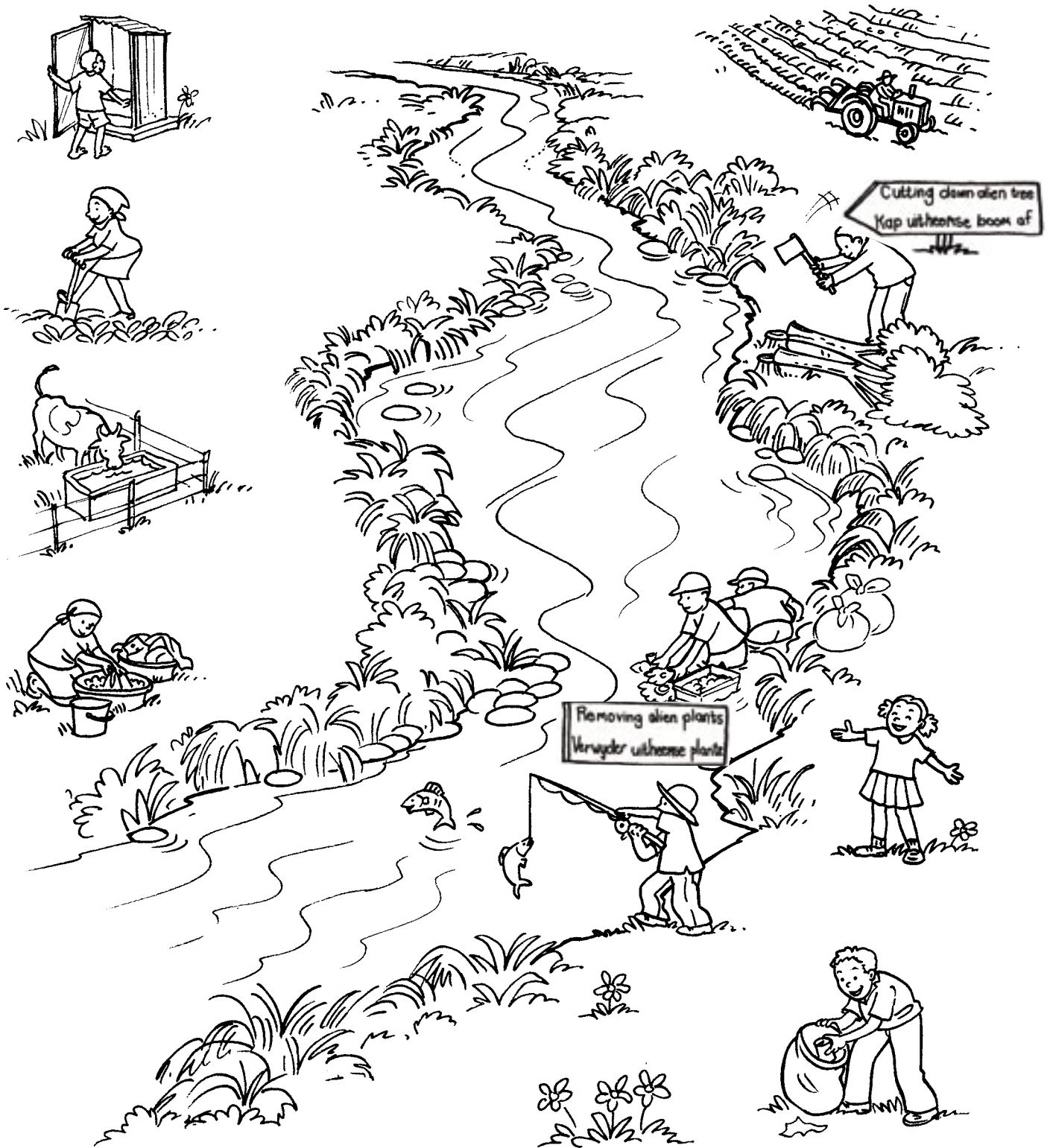
Can you find the best fishing spot?

Chris has invited you and your friend to join him fishing. Use the spinner on the cover of this book to find the best fishing spot on the river.



Is this a healthy river?

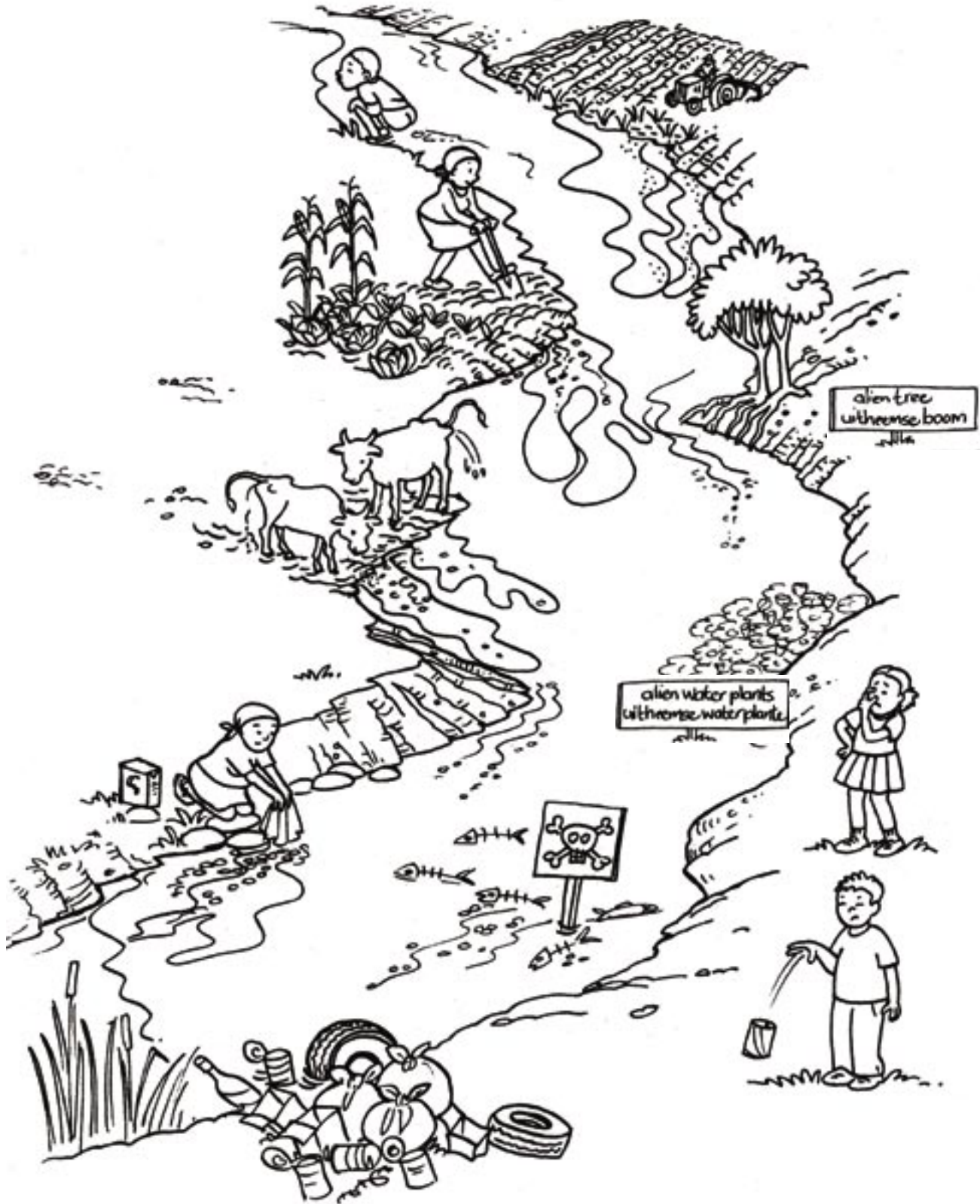
Tell your friend what makes this river healthy.
Colour the people who are looking after this river.



Is this an unhealthy river?

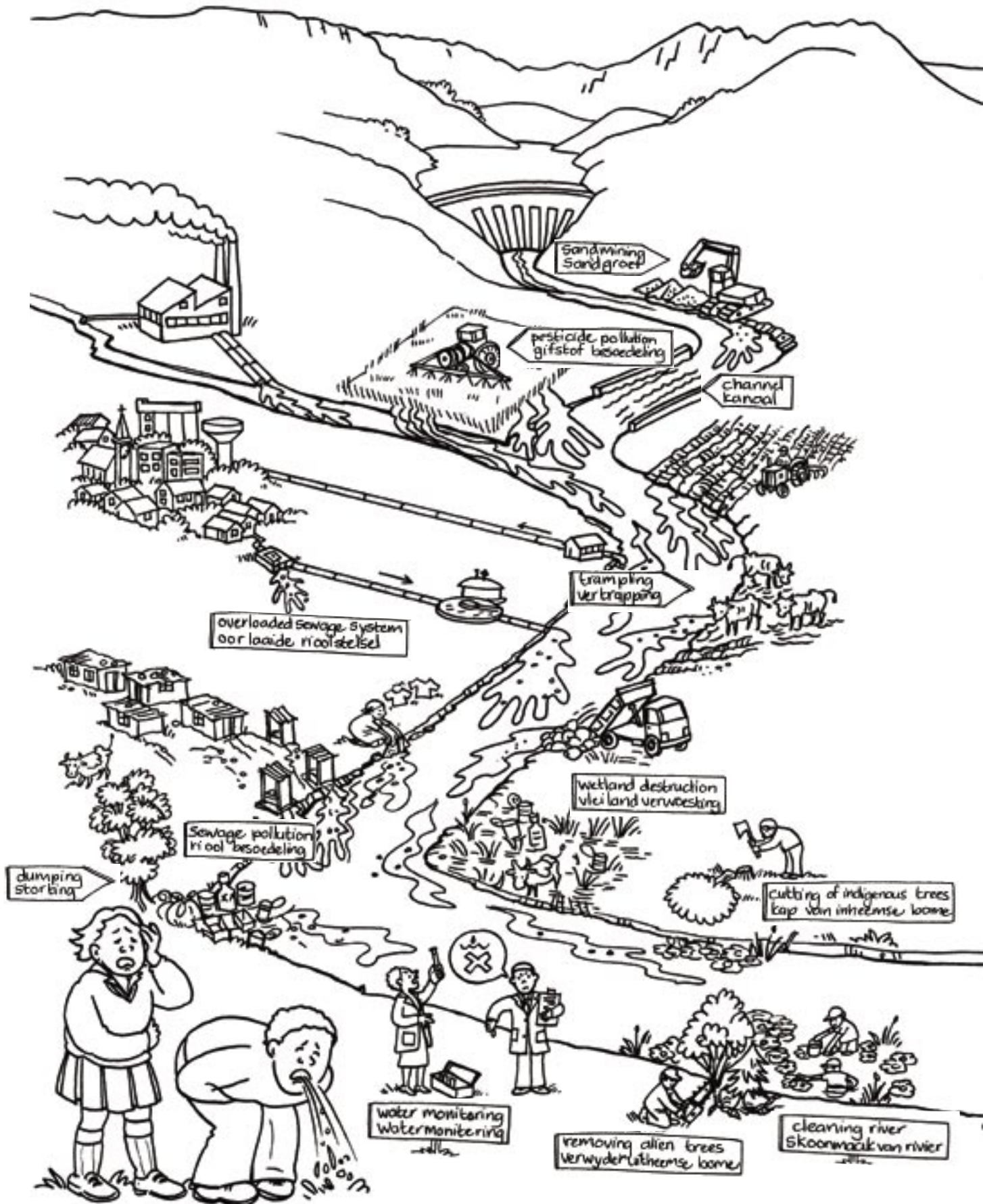
Why do you think this river is unhealthy?

Colour the activities that make this river unhealthy. Note the differences between the two pages.



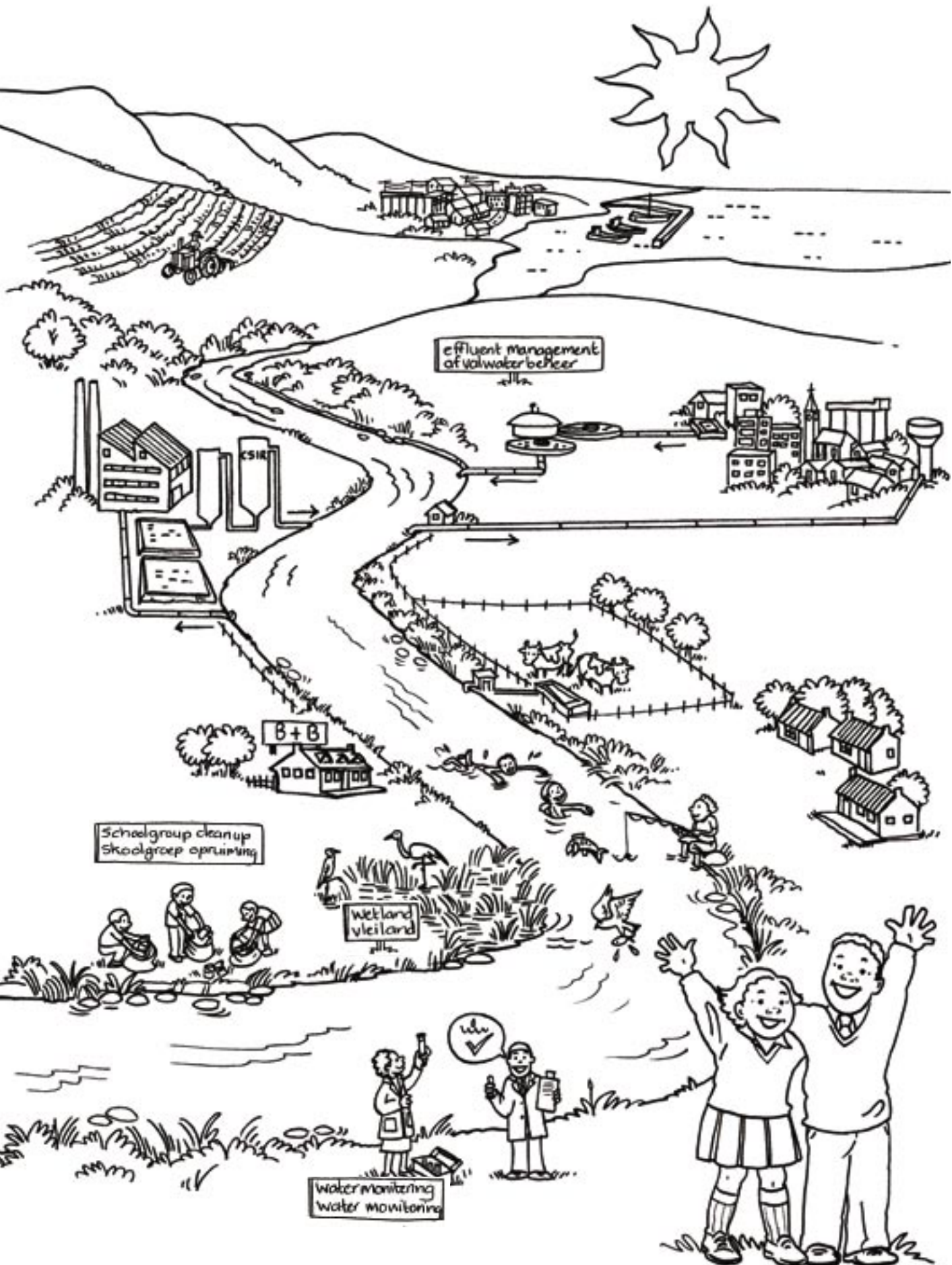
Can we get sick when we drink polluted river water?

Circle the activities that are bad for our rivers.



Will drinking from this river keep us healthy?

Circle the activities that make our rivers healthy.



Is this family wasting water?

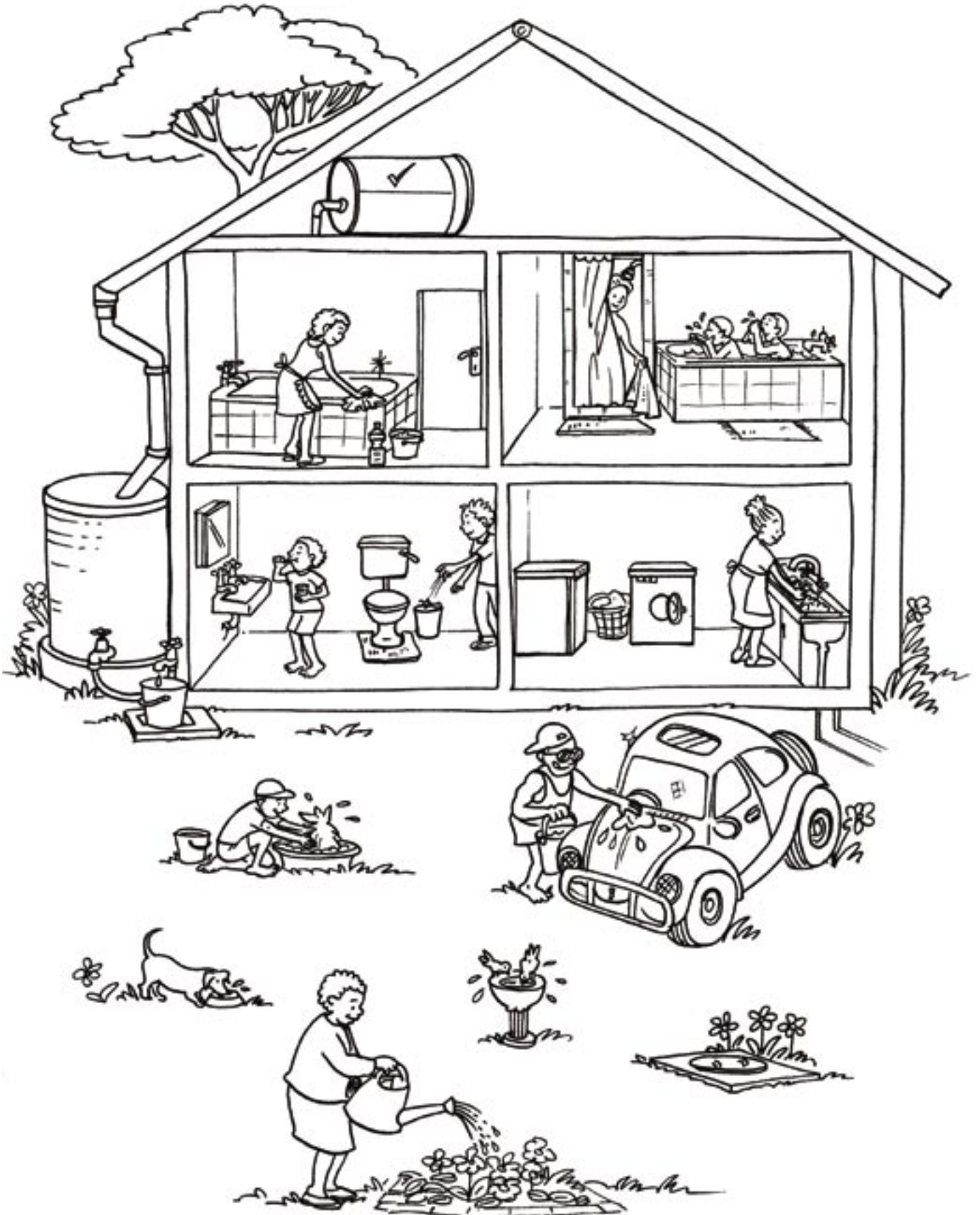
Circle the differences between the two households.

Tell your friend how many differences there are.




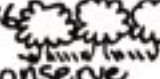

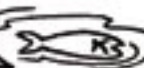















Is this family water wise?

Tell your friend how this family is saving water.



What is good and bad for our rivers?

Use the spinner on the cover of this book to play this game.

40 finish! einde!	39 pollute river! besoedel rivier! 	38	37	36 conserve indigenous trees bewaar inheemse bome 
31	32 clean river skoon rivier 	33 fish die, visse gaan dood 	34 make fire with alien plants. maak vuur met inheemse plante 	35 water hyacinth water hiasinte 
30 Upgrade sewage system verbeter riool sisteem 	29	28 healthy community gesonde gemeenskap 	27 deplete oxygen gebruik suurstof op	26
21	22 Care for our rivers / Gee om vir ons riviere 	23	24	25
20 Pesticide Spraying spuit gifstof 	19	18	17 chop down indigenous trees Kap inheemse bome af.	16
11 pollute rivers! besoedel riviere 	12 Conserve indigenous plants bewaar inheemse plante 	13 cause erosion veroorzaak erosie 	14 waste water Mors Water 	15 a clean river n skoon rivier 
10	9 remove alien plants haal uitheemse plante uit 	8	7	6
1 Start begin 	2 dry environment droë omgewing 	3	4 You do not litter jy mors nie 	5

Teachers Facilitation Guide (continued)

Page 8: Frogs need wetlands to survive. A frog without a wetland is in danger of dying. Explain to your learners that we need to ensure that wetlands are looked after, otherwise frogs will die.

Page 9: Explain to the learners that three players are involved in this game. They need to cut the spinner from the back cover of the book to use it as a dice. Explain to them that they need to find the best fishing spot on the river, but that they must take notice of the good and bad activities along the river. At the end of playing the game, learners should recognise that pollution (litter and raw sewage) set us back. This is also true for alien plants such as water hyacinth. We move forward (make progress) when we look after our rivers. Explain to learners that we move forward by picking up litter, monitoring the river and protecting indigenous species. Ask your learners whether they would like to proceed forward or backward in life and what they can do to make progress.

Page 10: Water from a clean, healthy river can be used for many purposes. But in South Africa, very few of our rivers are clean. It is wise to purify river water before using it. Ask learners why this river is healthy. Explain to learners that we can have clean healthy rivers if we remove the alien plants and trees and keep animals out of the river. Activities we can do to keep our rivers clean are to: wash in basins away from rivers instead of directly in the river; keep toilets away from the river; and farm wisely, not on the river banks.

Page 11: This is a very dangerous river. The water is badly polluted and should not be used by humans. It is possible that the water could be used to wash floors and vehicles, but it is not recommended. Explain to learners that people using this river water could easily get sick. Polluted rivers also smell bad, and can have rubbish or faeces in them. Ask learners who is responsible for making this river unhealthy. Ask learners what we need to do to fix the river (e.g. cleaning and treating the water). When using rivers be aware of what is happening upstream.

Page 12: Industries also make rivers dirty. Explain to learners that sand mining destroys the river banks and puts lots of soil and mud into the water. Pesticides from farms kill insects in the water. Sewage makes the river smell bad and causes algae to grow. Too much algae uses up the oxygen in the river and so water insects and fish die. Litter contains toxic chemicals that pollute the river. Litter is also ugly to look at. Ask learners if they can get sick when drinking water from this river.

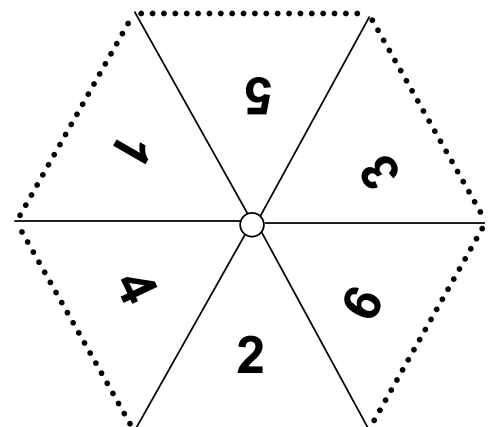
Page 13: This river has been well cared for. Ask learners to compare the rivers on pages 12-13. Ask learners to discuss with their friends which river they would like to play in and why? Grade 3 learners can write an essay on which river they would like to play in and why?

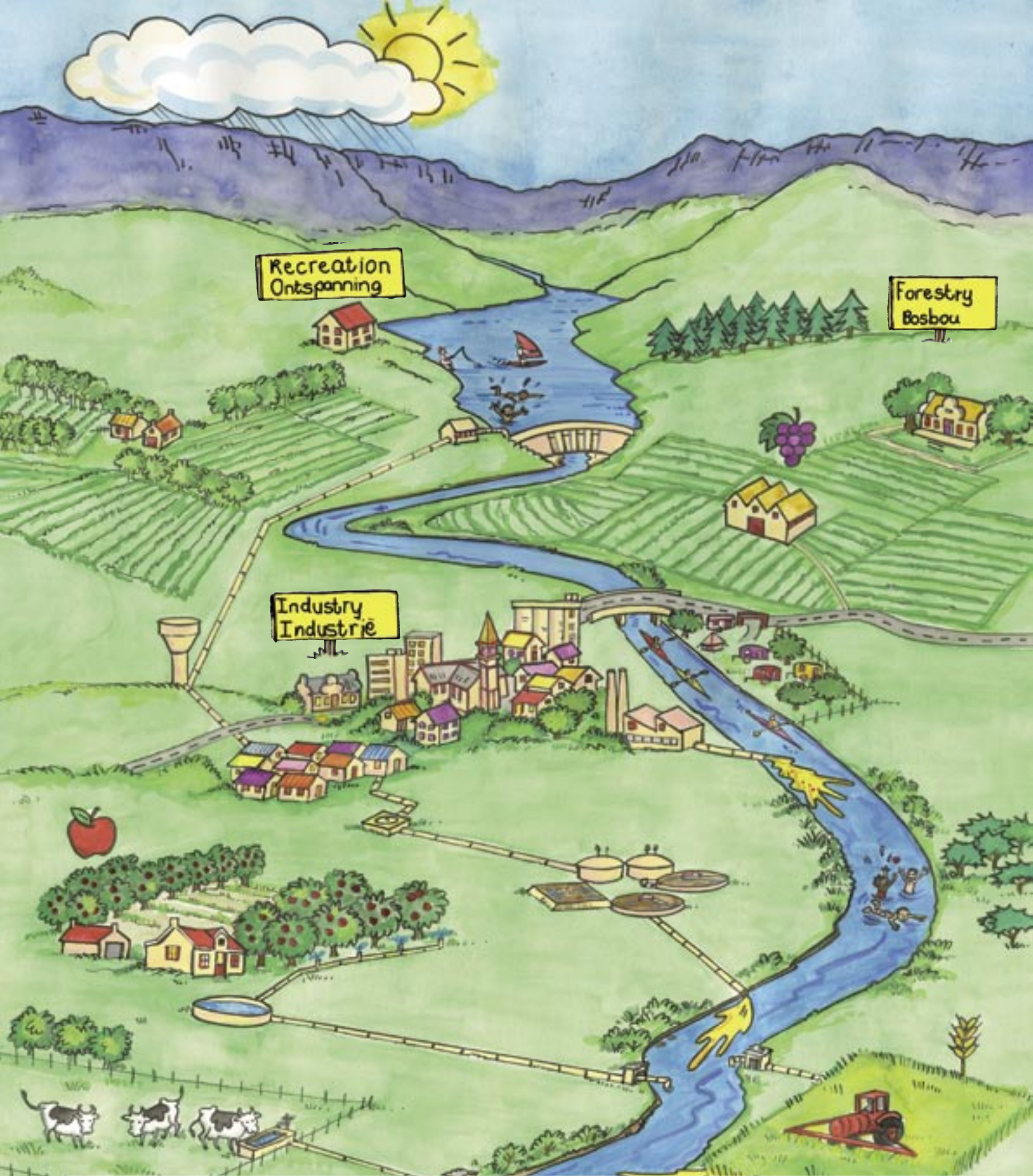
Page 14 & 15: The two households use water very differently. One wastes water and the other saves it. Ask learners to point out how water is wasted. Let them think about their own homes – do they waste water? Ask learners to discuss how they can save water. Grade 3 learners can list 10 ways of saving water. Acknowledgement is given to Van Plug/Mac Drip activity (RandWater), from which the ideas for pictures on pages 14-15 originated.

Page 16: This game is played the same way as normal snakes and ladders. Explain to the learners that two players are needed for this game. They need to cut the spinner from the back cover of the book to use it as a dice. This game is played to reinforce good and bad practices that can take place along rivers.

Spinner for games

1. Colour the triangles of the spinner in with different colours.
2. Cut the spinner along the dotted lines.
3. Place a small stick through the centre.
4. Twist the spinner. Wait for it to stop, then read the number that is in line with the stick.





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Ontspanning

Forestry
Bosbou

Industry
Industrie



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