EXTRA MISSION 03

Fantastik'eau

I love water. I take care of it!

WATER'S PATH, WHAT A MAZE!

IWB
ACTIVITY ALSO AVAILABLE IN INTERACTIVE WHITEBOARD FORMAT!
cieau.org/fantastikeau

CYCLE 1

CIEAU Centre d'interprétation de l'eau

Québec

EXTRA MISSION 03

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STUDENT WORKBOOK
CYCLE 1

CIEAU Centre d'interprétation de l'eau

Québec

EXTRA MISSION 03

BACKGROUND

The plans of the water network in Conscious Charlie and Wasteful Wally's town were lying on Crystal Clearwater's desk, but a gust of wind scattered everything. Join the Fantastik'eau crew and try to put the stages of the urban water cycle back in order.

JÉRÉMIE : Now that you're a water treatment expert, you can apply your new knowledge by doing other fun activities!

THIS IS A JOB FOR **THE FANTASTIK'EAU CREW!**

DO THIS ACTIVITY WITH JÉRÉMIE

Watch the short video featuring Jérémie, and do the activity with him! All of the Fantastik'eau content and videos are available on the C.I.EAU's website at:

www.cieau.org/fantastikeau

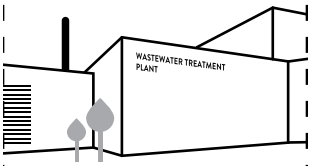
EXTRA MISSION 03

PUT THE IMAGES IN THE CORRECT ORDER

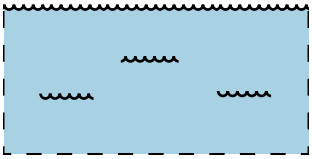
They must form a circle—like the urban water cycle!

Hint : Start with the river, which provides the water, and finish with the river that receives the treated wastewater.

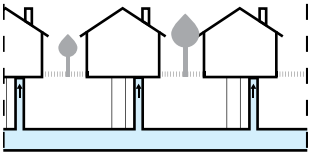
WASTEWATER TREATMENT PLANT



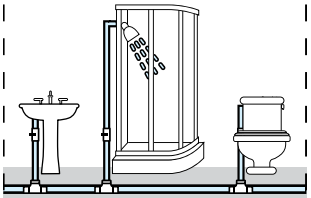
RIVER RECEIVING TREATED WATER



DRINKING WATER DISTRIBUTION SYSTEM

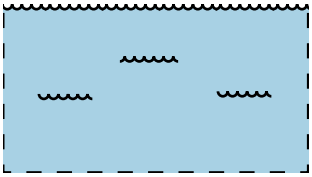


HOMES (TAPS, SHOWERS, TOILETS, ETC.)

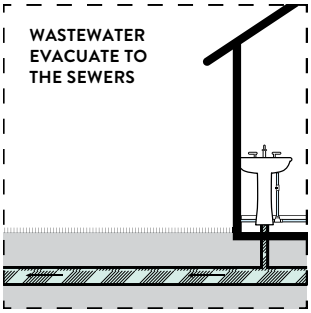


DRINKING WATER TREATMENT PLANT

RIVER SUPPLYING WATER



WASTEWATER EVACUATE TO THE SEWERS



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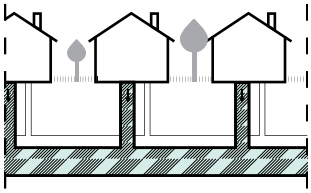


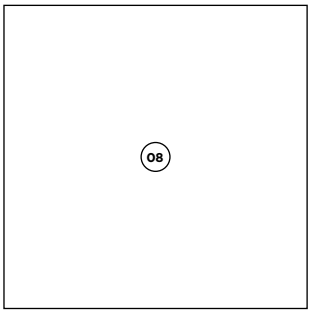
EXTRA MISSION 03

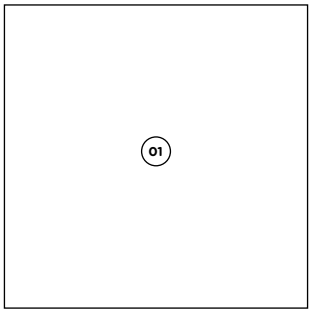
PUT THE IMAGES IN THE CORRECT ORDER

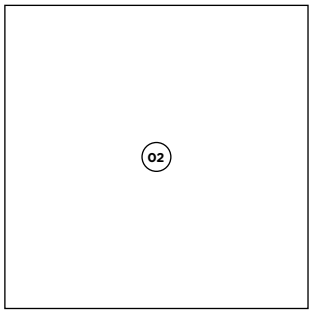
They must form a circle—like the urban water cycle!

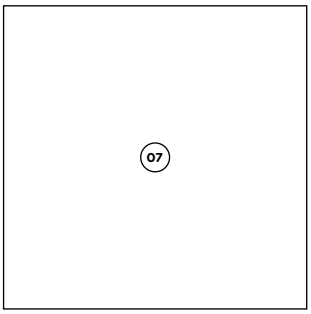
Hint : Start with the river, which provides the water ...
and finish with the river that receives the treated wastewater.

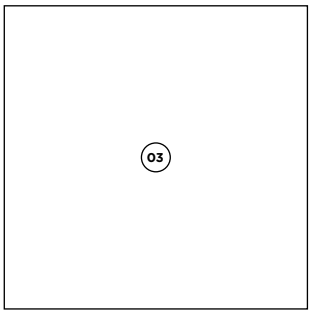
THE URBAN WATER CYCLE

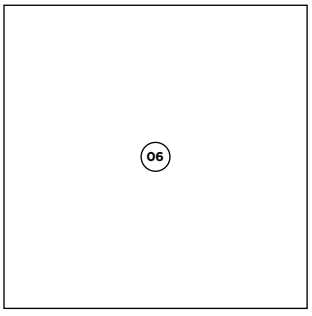


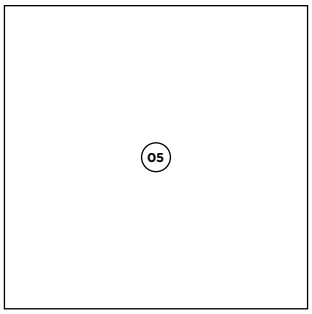


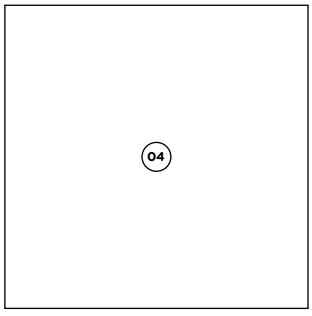












EXTRA MISSION 03

JÉRÉMIE : Do you know where the drinking water treatment plants are located in your town or city? A quick Web search should help you find out!

DIVING DEEPER

The drawing above represents the cycle that drinking water goes through in an urban environment. You can print the page and, using a pencil, draw a line representing the path that the water must follow to get to your home. Here's a hint to help you with this exercise: your line must start and end at the river.

Look at the drawing and identify the following:

1 – the drinking water treatment plant

2 – the wastewater treatment plant

3 – the river that receives the treated water

4 – the river that provides the water

5 – the drinking water distribution system

6 – the wastewater evacuate to the sewers

7 – the sewers

MAKE A SCALE MODEL

Using the picture above for inspiration, take the time to create your own scale model! In your classroom or at home, you can design a scale model of the drinking water distribution system. To create it, use what you find at home or in your recycling bin: milk cartons, cardboard paper towel tubes, or anything that inspires you! On your model, make sure you locate:

- the drinking water treatment plant
- the wastewater treatment plant
- your home!

QUESTIONS

The wastewater that leaves a house flows into the sewers. Does it go directly to the river? If not, where does it travel?

In which water system does water flow faster? The drinking water distribution system or the sewer system? Does water flow at the same speed in both systems?

Firefighters often use drinking water to put out fires. Why?

EXTRA MISSION 03

Fantastik'eau

I love water. I take care of it!

WATER'S PATH, WHAT A MAZE!

ANSWER KEY
CYCLE 1

C.I.EAU Centre d'interprétation de l'eau

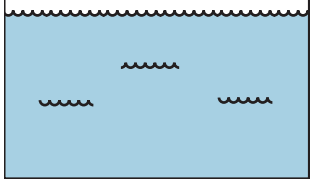
Québec

EXTRA MISSION 03

ANSWER KEY

THE URBAN WATER CYCLE

RIVER SUPPLYING WATER



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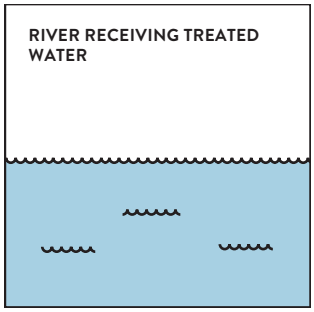

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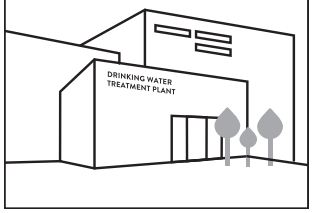

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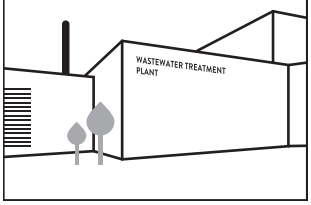

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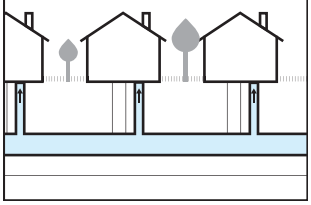

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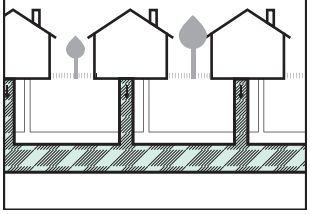

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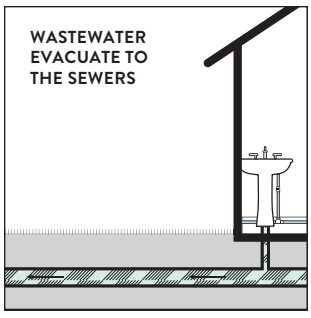

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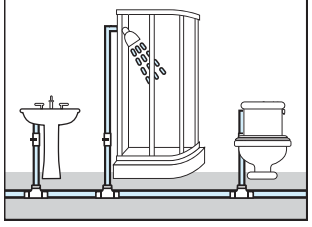

EXTRA MISSION 03

DIVING DEEPER

1 Drinking water treatment plant
2 Wastewater treatment plant
3 River that receives the treated water
4 River that provides the water
5 Drinking water distribution system
6 The wastewater evacuate to the sewers
7 Sewers

QUESTIONS

The wastewater that leaves a house flows into the sewers. Does it go directly to the river? If not, where does it travel?

Answer: To the wastewater treatment plant.

In which water system does water flow faster? The drinking water distribution system or the sewer system? Does water flow at the same speed in both systems?

Answer: The sewer system. In some cities, the sewer systems are designed, in whole or in part, to also receive part of the rainwater and snowmelt. This water significantly increases the flow rate at the wastewater treatment plant because it is added to the water polluted by residential, commercial, institutional (e.g. schools and hospitals), or industrial uses.

Firefighters often use drinking water to put out fires. Why?

Answer : Because of the pressure. The fire hydrants you see along streets are connected to the water supply distribution system (aqueduct). In fact, a fire hydrant is like a huge tap that stands three metres high and looks like a person. The visible portion of the fire hydrant is that person's head, and a nut is used to open or close the mechanism in the person's foot (located underground). When the mechanism is opened, water rises to the head and comes out of the ears! The water comes out at full speed because it is pushed by the drinking water treatment plant's high-pressure pumps.

EXCERPT FROM:

Fantastik'eau! I love water, I care for it! :
The Fantastik'eau educational package: Complete Guide, 2nd edition

This educational package was created by the CENTRE D'INTERPRÉTATION DE L'EAU
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CREDITS

This educational package was created by the Centre d'interprétation de l'eau (C.I.EAU), with the financial support of the Québec Ministry of Municipal Affairs and Housing (MAMH).

The C.I.EAU would like to thank everyone involved in the production of these materials, including all creative resources, technical and educational advisors, translators, and anyone whose ideas enriched the content of the Fantastik'eau! I love water. I take care of it! project.

The full list of people who contributed to the project (employees, volunteers, contract workers) is displayed on the C.I.EAU's website.

Collaboration—education: Virus 1334, Le Récit
Graphic design: Virus 1334
Illustrations: Simon Says Design

The following is a list of books, websites, pages, and publications dealing directly with the subjects covered in the Fantastik'eau educational package.

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Centre d'interprétation de l'eau (C.I.EAU) www.cieau.org

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Fantastik'eau

I love water. I take care of it!

ENJOYED THE EXPERIENCE? VISIT THE C.I.EAU'S WEBSITE FOR EVEN MORE EDUCATIONAL CONTENT:

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SPECIAL THANKS

This project was made possible thanks to the support of the Ministry of Municipal Affairs and Housing.

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