WATER FAMILY
DU FLOCON A LA VAGUE

les mini MONDES

PETIT BATEAU

FROM AGE 5

WE PRESENT

# THE VACATION NOTEBOOK

of the Duchemin Family's & Flaggy's

# EARTH-OCEAN ODYSSEY

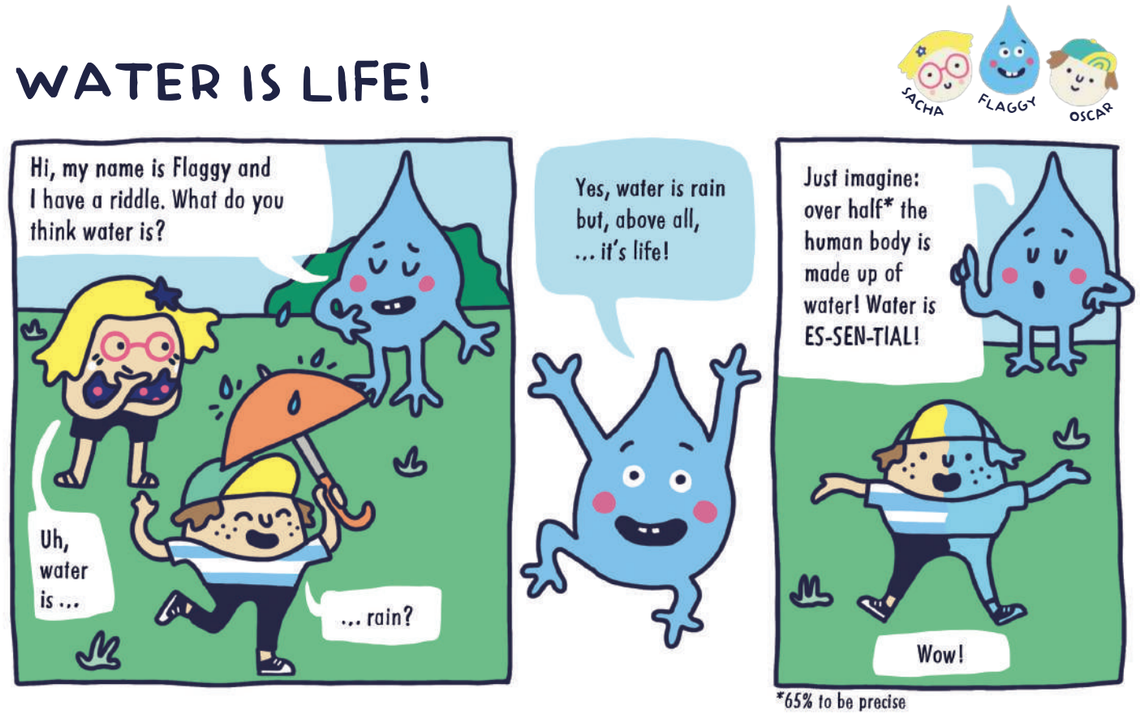
# From snowflakes to waves: the cycle of water and living things


Stick the stickers in the right place to recreate the water cycle.

Color the water's path from the mountains to the sea in blue.

IT IS IMPERATIVE THAT THE EXPERIMENTS AND CHALLENGES IN THIS NOTEBOOK BE DONE WITH AN ADULT.

## WATER IS LIFE!




### A mini introduction to biodiversity with biologist Gilles Boeuf

"**Biodiversity is the living part of nature.** We cooperate with it to breath, eat and drink. We are completely part of this living cycle and as proof: in the human body there is more bacteria on and in us than there are human cells. We can't do without it! So we must cherish and love this biodiversity with all our force!"

### CHALLENGE 1

Take a photo of your family in one of these places: at the mountains, along the edge of a river, in a wetlands region or by the sea.

You can post in on Instagram with the hashtag **#petitbateau**

# In the mountains

Let's talk about the weather! The water that falls from the sky is either **liquid**, which is rain, or **solid**, which is snow. Snow-covered mountains represent a giant reserve of water. The snow that falls in the winter melts in the spring and supplies water to the rivers.

Circle in blue the places where water is solid and circle in green where it is liquid.

Brook

Glacier

Mountain stream

Waterfall

Lake

Snow

## EXPERIMENT

Let an ice cube melt from a solid state to a liquid state. You can even put a glass salad bowl over it and set it in the sun. You'll see, it will melt faster!

**This is what is happening on our planet with the greenhouse effect, it is a natural process that is now amplified by human activity.**



Circle 7 differences between the 2 images.

## CHALLENGE 2: SENSORY PROMENADE

Describe your hike in the mountains or your stroll in the park by using your 5 senses.

### WHAT YOU HEARD:

The noise of flowing water, the chatter of woodchucks, the songs of birds, the wind in the pine trees, the buzz of insects gathering pollen in flowers.

### WHAT YOU TOUCHED:

The spongy moss near the waterfall, the soft grass in pastures, the roughness of rocks, the coolness of water in a brook.

### WHAT YOU TASTED:

The water running from a source, berries - such as blueberries.

### WHAT YOU SAW:

Animal footprints or excrement, water, animals (fox, eagle, mountain sheep, cow ...), flowers, a mountain hut, a signpost indicating a hiking path.

### WHAT YOU SMELLED:

Flowers (gentian, foxglove, cornflower, arnica...).

BE CAREFUL WHAT YOU TASTE AND ONLY DO IT IN THE PRESENCE OF A KNOWLEDGABLE ADULT.

# At the river

The river supplies water for people's homes.

The river is often used to produce electricity.

It is used to transport merchandise on barges.

We pump water to nourish crops.

It shelters many plant and animal species.

The trees along its banks filter the water and rid it of its pollutants.

The river is a useful place for leisure activities like canoeing or fishing.

## LOOK FOR AND FIND NEAR A RIVER

Rivers collect rain and bring water down from the mountains. While limiting flooding, they also provide the fresh water that is essential to life. They also shelter many species of animals and plants.

### CHALLENGE 3

**PLAY AT BEING AN ECOLOGIST** and do a diagnosis of a river! Do a survey to know if the river is healthy.

Download your file by using this QR Code.

# The life of the river

When we speak about river animals, you probably think about fish first. But it also shelters many other species:

Learn how to draw a beaver in 4 steps.


**Mammals** like otters or beavers.

Water **birds** like the gray heron or kingfisher.

Water **insects** like the dragonfly, damselfly or mayfly.


Follow the numbers to color in and discover the kingfisher's magnificent colors.

Circle the pairs of insects.

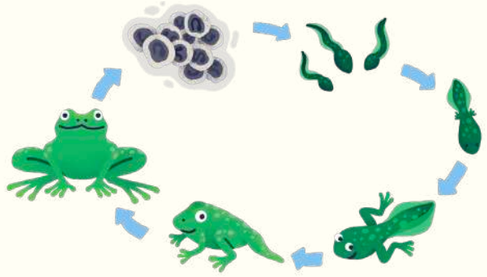


The river also shelters many species of fish like the Atlantic salmon. This is a migrant **fish** that lives in the ocean and returns to the river where it was born to reproduce.


Amazingly, it remembers the almost 1000-kilometer upstream route to go home. The Allier is one of the last European rivers where we can find this fish.

Stick on the steps of a salmon's life cycle.

**Amphibians** like toads or salamanders.



**From tadpole to frog**

## CHALLENGE 4

- Accompanied by an adult, collect a bit of water and soil from a shallow river that has a slow current. You will be able to observe many tiny animals with a magnifying glass!
- BE CAREFUL, DON'T GO TO THE RIVER ALONE!

Download your file with this QR Code to help you identify the invertebrates that live in the river.

# The life of trees

Trees also participate in the cycle of water and living things. Come, I'm going to introduce you to Treebu, my tree friend.

I'm Treebu, an oak tree that is over 300 years old! Like you human beings, we breath and perspire. We also communicate with each other through our roots. And along with animals, we mutually help each other. For example, we provide food and shelter for birds who, in exchange, spread our seeds.

What a team ! Encircle all the animals arround Treebu.

Thanks to a process known as "photosynthesis" and also thanks to the Sun, we absorb CO2 from the air and release another gas that is essential to life

E Y X N O G

Find the name of this gas by replacing each leaf with the corresponding letter.

**Treebu, what is evapotranspiration?**
Rainwater falls on the ground. The trees drink it through their roots, it rises to their leaves and evaporates... to be once again transformed into rain!

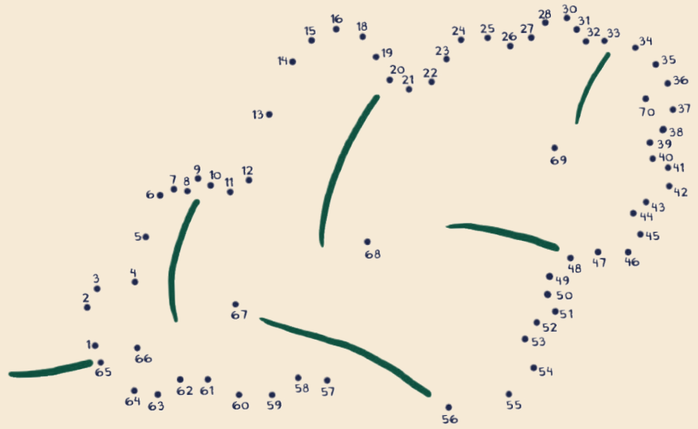

## EXPERIMENT

**Plants also perspire!**
Put a potted plant under a glass salad bowl in the sun. Soon you will see mist on the inside. These are the miniscule droplets of water that the plant evacuates.



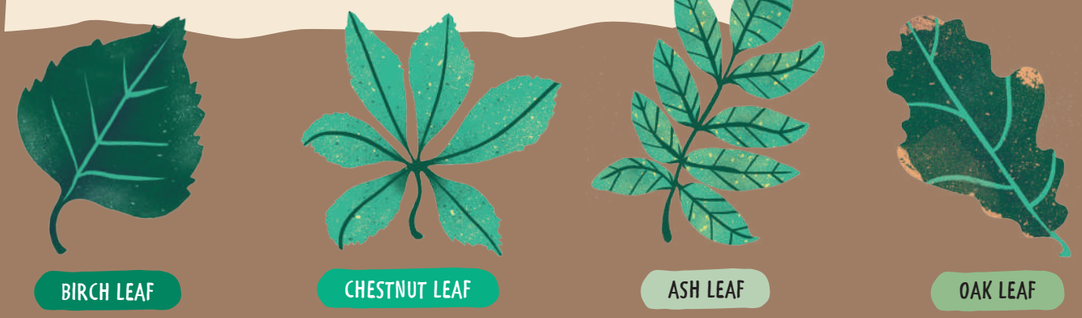
THIS IS A LEAF OF

_____



Connect the dots to draw the leaf.

Then find which tree it belongs to by using the clues below.



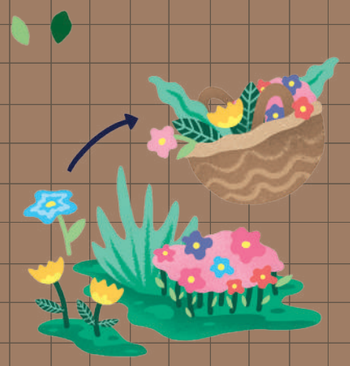
BIRCH LEAF

CHESTNUT LEAF

ASH LEAF

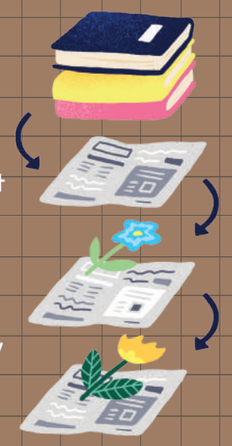
OAK LEAF

## CHALLENGE 5
## MAKE YOUR OWN HERBARIUM



1 Collect some leaves.

2 Spread them on a sheet of newspaper while being careful that they don't touch each other. Place another piece of newspaper over them. Put a heavy book on top (a dictionary for example)..



3 Let them dry for six days. Glue the leaves into a notebook and write down the name of each species

# Wetlands

Color these!

Wetlands absorb the excess water from heavy rains or swollen, overflowing rivers. They then slowly release this water during dry periods. We can compare them to sponges. They also improve the water's quality thanks to plants like reeds which filter the water.


Crested grebe

White spoonbill

## WHO AM I?

- I AM A WATER BIRD.
- I HAVE LONG LEGS, I AM A WADER.
- I HAVE WHITE FEATHERS.
- I HAVE A LONG, FLAT BLACK BEAK WITH AN ORANGE TIP.

Small heron

QUESTION FOR AN EXPERT BY SACHA

## What is a wetland?

«Wetlands, the areas between the land and rivers, are important for nature since they have many plants and animals and also retain excess water which they eventually release when the earth is too dry. It's important to protect these areas.»

**Françoise GOULARD**
Research advisor for the Adour-Garonne Water Supply Agency

RÉPUBLIQUE FRANÇAISE
Liberté
Égalité
Fraternité

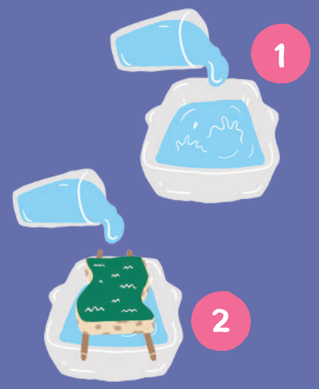
eau GRAND SUD-OUEST

## CHALLENGE 6

OBSERVE WATER BIRDS AND TRY TO FIND THEIR NAME BY USING THE PAGE ON THE LEFT.

## EXPERIMENT

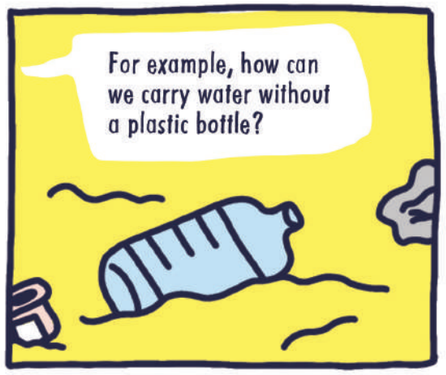
How many glasses of water must you pour in container 1 until it overflows? And how many glasses of water for container 2?




And yes, you had to pour more water into container 2 before it overflowed since the sponge absorbed part of the water. This is what happens in wetlands.

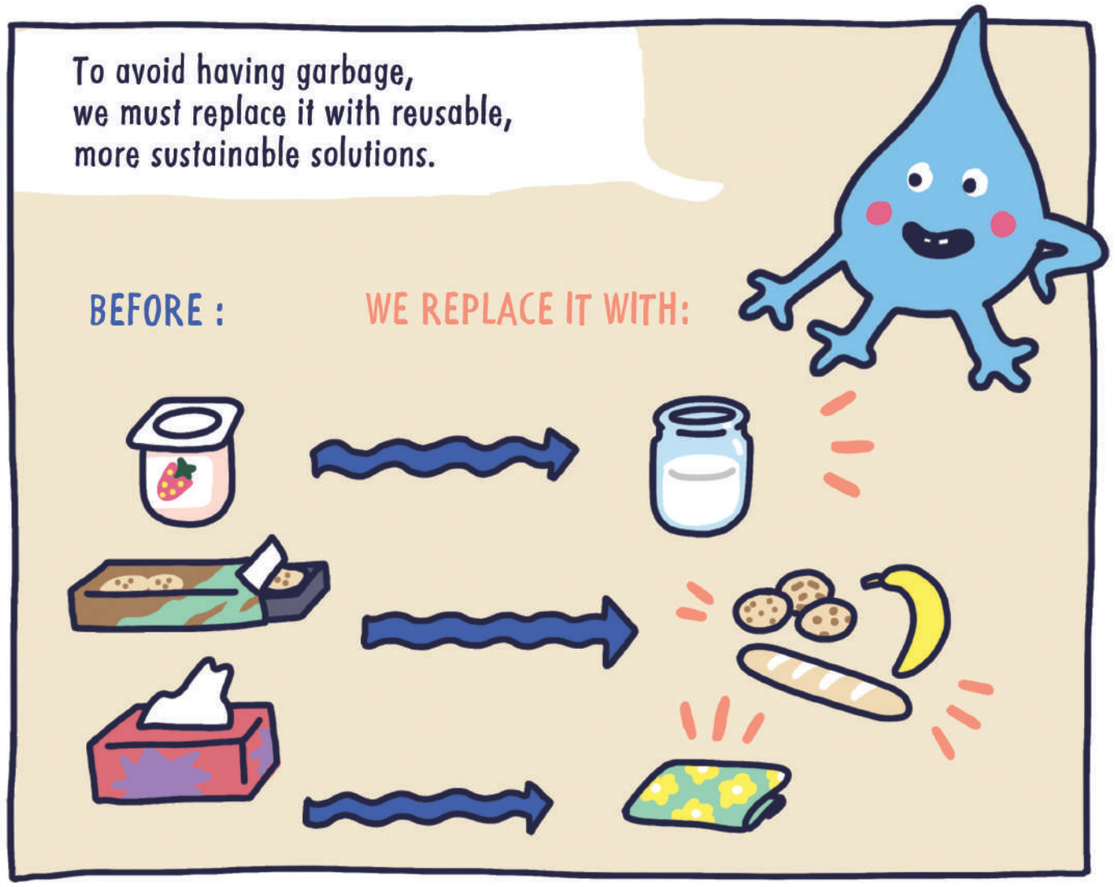
# A BIT OF MAGIC WITH FLAGGY









## CHALLENGE 7

PREPARE A ZERO WASTE MEAL DURING YOUR VACATION.

# The coastline

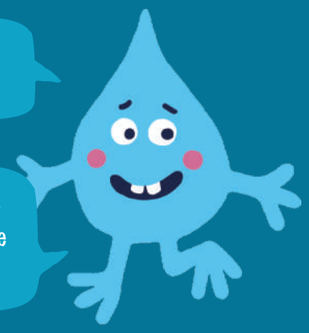
The beach protects the coastline from erosion caused by waves thanks to its vegetation, sand and pebbles. This is why you shouldn't take any of these things away when you go to the beach!


Flaggy, do think the wind blew away your sandcastle?

Do you think it was my mother so I would make a more beautiful one?

Well no my friend, the culprit doesn't blow...

Ha, not your mother but... can't you see the difference between the 2 photos?



**The tide is the ebb and flow of the ocean!**

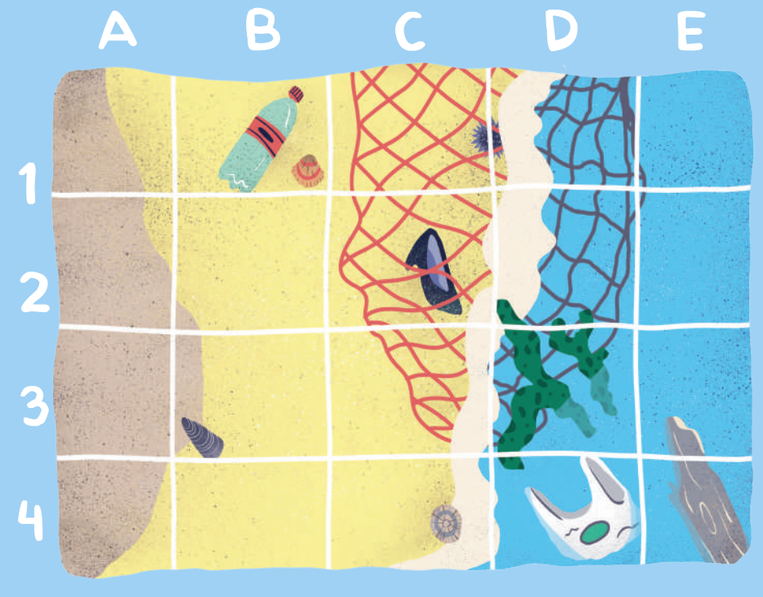
To explain it simply, the Moon draws the water towards it so the ocean "pulls back" and we call this low tide. Then the water rises again six hours later for the high tide.

BUILD A SAND CITY WHEN THE TIDE COMES IN AND TELL A STORY.



# Life at the seashore

**Ocean debris** is what the ocean leaves on the beach after a high tide. It contains natural debris like shells, pieces of wood, algae...




But unfortunately ocean debris is also made up of garbage like plastic bottles or the remains of fishing nets.

Write what you see in:

B1 : _____

C2 : _____

D3 : _____

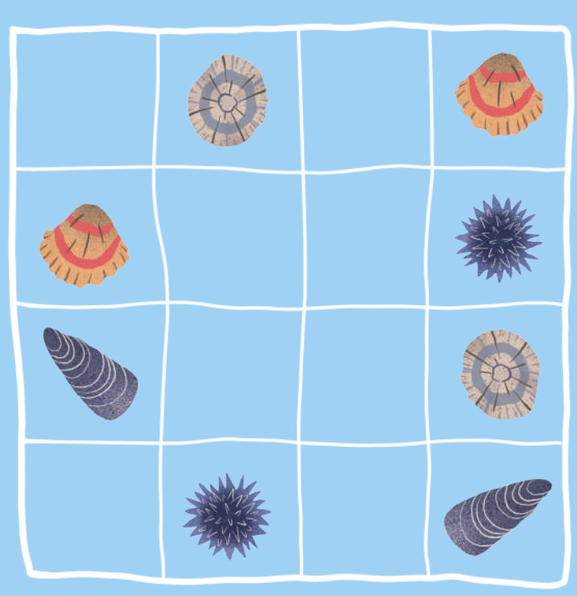
D4 :_____

E4 : _____

## CHALLENGE 8

GO DISCOVER OCEAN DEBRIS SO YOU CAN DO A PARTICIPATIVE SCIENCE STUDY.

Observe and study biodiversity and ocean waste with the Living Beaches program of France's Natural History Museum (ALAMER program).



Stick the shells on the right place.

Make sure that each one only appears once on each line and each column.

# Water at home

Did you like discovering water in nature? Now let's look at how it's used in our daily lives since we also need water … like all the other living beings!

Circle everything that uses water at home.

Stick each step of the small water cycle in the right order.

1 Sampling water in the river or in groundwater

2 Treating water so it becomes drinkable

3 Stocking drinkable water (water tower)

4 Distributing drinking water

5 Salvaging waste water

6 Treating waste water (water treatment plant)

7 Returning water to the natural environment



The problem is that the water released back into nature is not totally clean. It contains pollutants that come from the products we use at home: cleaning products, clothes or dishwashing detergents and toiletry products.

Look for products in your home with one of these labels. Did you find any? If so, count them and write down how many you found: ___

TO PRESERVE WATER AND YOUR HEALTH, CHOOSE PRODUCTS WITH ONE OF THE LABELS BELOW:

EU Ecolabel · NF Environnement · ECO CERT · NATURE & PROGRES · COSMÉTIQUE BIO CHARTE COSMEBIO · demeter

Even better, you can make your own toiletry or washing products, they will be 100% healthy and natural!

## CHALLENGE 9

## MAKE YOUR OWN SOAP!

INGREDIENTS:

125 ml of water

500 g of lavender honey

300 g of Marseille green soap with 72% oil

5 drops of essential lavender oil

1 Pour the water into a pot, add the honey lavender and dissolve it.

2 Cut the Marseille soap in thin strips and pour it into the preparation. Ask an adult to heat it at a low heat until you have a smooth liquid.

3 Add the drops of essential lavender oil.

4 Pour it into the molds you've chosen and let it harden for a few hours.

5 All you have to do now is take your soaps out of the molds!

# Invisible water

Connect each object to the right part of the water drop, depending on whether it corresponds to visible or invisible water.

The water you use to wash yourself or do the dishes is what we call "visible water". It only represents a tiny part of our daily water consumption. To this you must add a few thousand liters of "invisible water"! This is the water we don't see that is used to manufacture our objects and food.


PETIT BATEAU

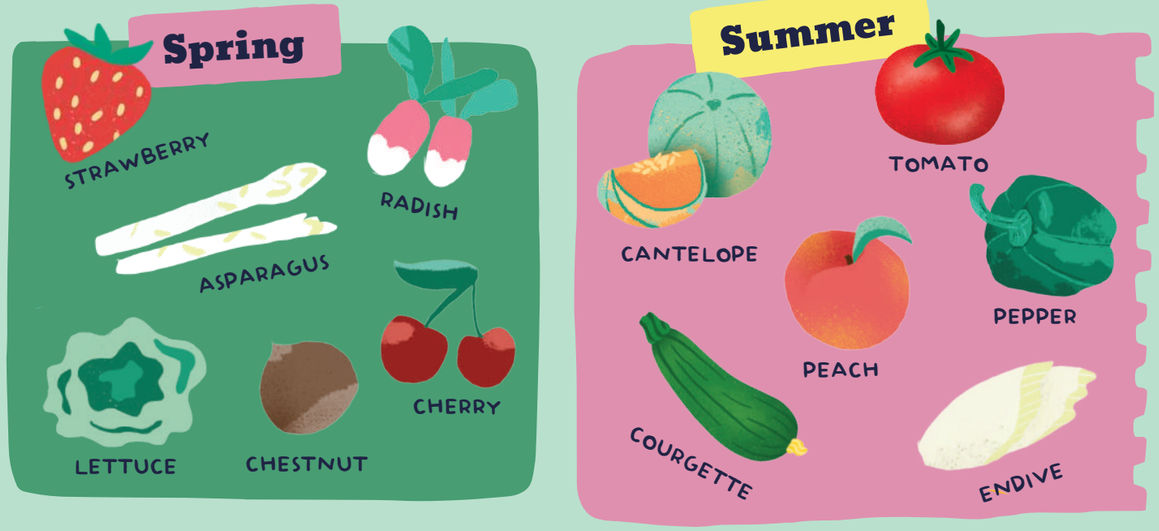
At Petit Bateau, we manufacture quality T-shirts so they will last a long time. We even intend for our T-shirts to have "5 lives", meaning that they can be used by at least 5 different children!


Stick on the steps



# On your plate

Circle what doesn't belong for each season.




**Fruits and vegetables don't all grow at the same time during the year.**

It's important to eat them in season, otherwise it means that the fruits and vegetables have been grown under a heated greenhouse or have come from a faraway country. In both cases, their production has generated a lot of pollution.

They also taste better and are healthier!

**CHALLENGE 10**

EAT LOCALLY, ORGANICALLY AND IN SEASON FOR A WHOLE WEEK.

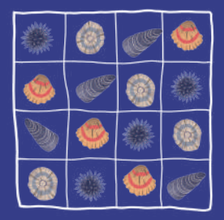
# Count your points!

Check the challenges you did and count them.

- CHALLENGE 1: FAMILY PHOTO
- CHALLENGE 2: SENSORY PROMENADE
- CHALLENGE 3: DIAGNOSIS OF A RIVER
- CHALLENGE 4: OBSERVING SMALL RIVER ANIMALS
- CHALLENGE 5: MAKE AN HERBARIUM
- CHALLENGE 6: OBSERVE WATER BIRDS
- CHALLENGE 7: PREPARE A ZERO WASTE MEAL
- CHALLENGE 8: PARTICIPATION IN THE OCEAN WASTE PROJECT
- CHALLENGE 9: MAKE YOUR OWN SOAP
- CHALLENGE 10: ORGANIC, LOCAL AND SEASONAL FOOD

**Game solutions:**

p.3 : brook – glacier – mountain stream – lake – snow / p .4: bird direction, tree motif on right, Flaggy arm, rabbit, Sacha's basket, flower color on left, Polaroid photo / p.9: OXYGEN / p.10: oak leaf – p.12: white spoonbill / p. 16: B1: plastic bottle, C2: shoe, D3: algae, D4: plastic bag, E4: piece of wood / p.17: bathroom sink, shower, washing machine, kitchen sink, watering the garden, hose / p.19: visible water: drink a glass of water, use the toilet, take a shower, wash the dishes – invisible water: meat production, manufacturing a pair of jeans, manufacturing a computer, producing milk, growing fruits and vegetables, making bread / p.20: spring intruder: chestnut, summer intruder: endive, autumn intruder: apricot, winter intruder: raspberry.





# Make your paper click-clack

UP FOR IT OR NOT?
TOGETHER LET'S PRESERVE WATER AND LIVING BEINGS!

Cut out the square and fold it, following the instructions, to construct your paper click-clack. Propose the challenges offered in it to your family and friends.


1. Cut out the paper click-clack and place it on the wrong side.
2. Fold the paper horizontally and then vertically to mark the center.
3. Fold the 4 corners towards the center of the square.
4. It should look like this. Turn it over and again fold the 4 corners to the center of the square.
5. It should look like this. Turn the square over again and fold it in both directions to mark the folds. Place one finger under each color.
6. *It's done!*

Hi everyone!

We are the **Duchemin family** and we travel the world in our van and also our amazing trimaran. We met Flaggy, a tiny drop of water from the Water Family! She'll accompany us throughout this book to discover water from A to Z!

Welcome aboard!
Sacha, Oscar, Mommy Jeanne, Daddy Jim and Flaggy

WATER FAMILY
DU FLOCON A LA VAGUE

The **Water Family's** mission is to educate people about preserving water, our health and all living things. Since 2009 it has developed full teaching programs for schools, companies and special events using an approach to positive education that emphasizes good habits! The world is changing so let's adapt ourselves right away: together, let's take action at the source!

Understand the importance of water

Emphasize each person's commitment

Teach about eco-gestures

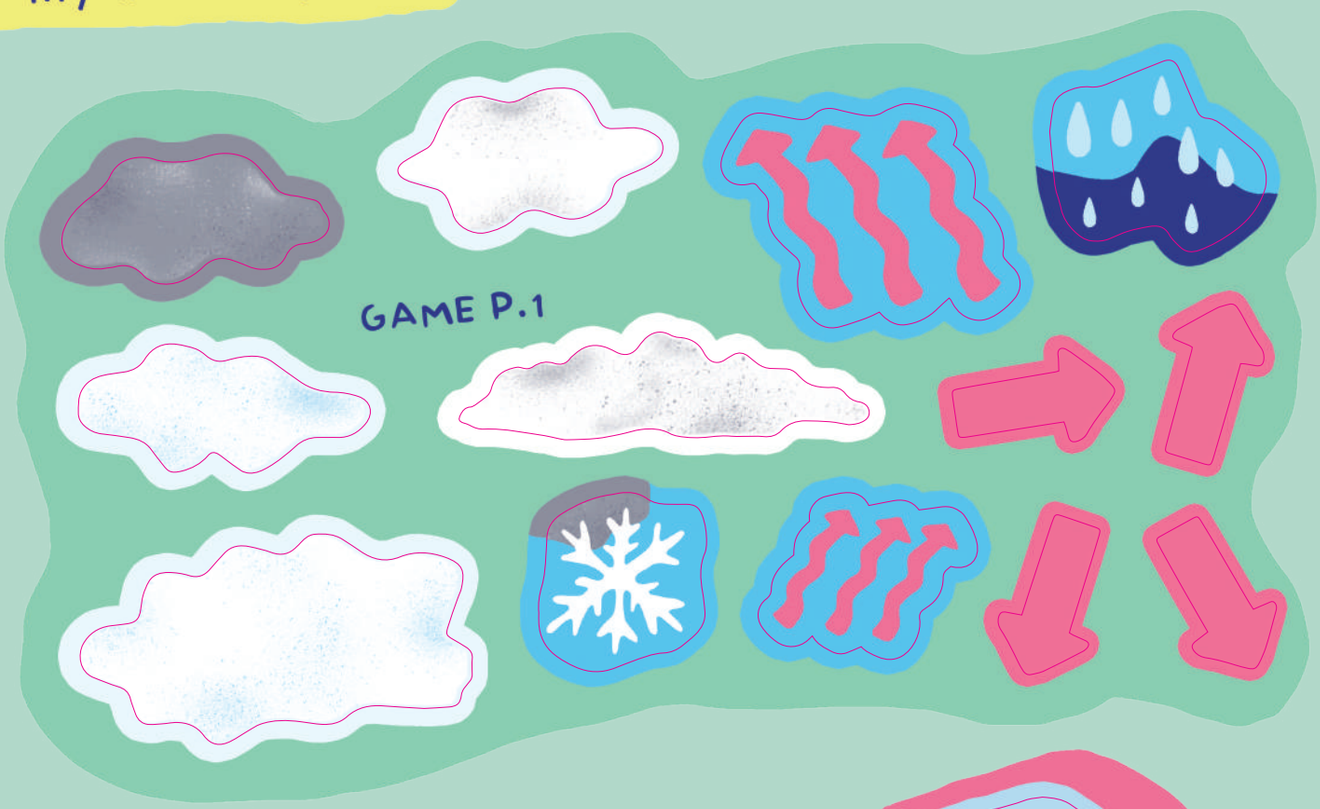
Learn while having fun

At **Petit Bateau**, our mission is to connect children with nature to help preserve their most amazing playground for playing and growing. We share this objective with the Water Family who educate young children and make them aware of today's challenges associated with protecting water, our health and all living things.

Distribution partners:

PEFC 10-31-1980 / Certifié PEFC /
Ce produit est issu de forêts gérées durablement et de sources contrôlées. / pefc-france.org

# My sticker page







# The 10 medals of your diploma!

When you get your diploma, stick the medals on your challenges or else decorate your notebooks with them right away ;)

**Bonus stickers!**