



GUADARRAMA RÍO DE ARENA RÍO DE ARENA

Programa de Educación Ambiental
en el Parque Regional del Curso Medio
del Río Guadarrama y su entorno

PROGRAMA FINANCIADO POR



Dirección General de Biodiversidad
y Gestión Forestal
CONSEJERÍA DE MEDIO AMBIENTE,
AGRICULTURA E INTERIOR



DESARROLLADO EN



Taking care of our rivers: Quickstart Guide

5° - 6° EPO



Hi! I'm **Guadarrama River**, one of the main rivers in the Region of Madrid. I spring in the Fuenfría Valley, in the Guadarrama mountains. I go down 132,8 km among rocks, sand and riverbank forests, until my waters flow into the Tajo River, that great river that runs into the Atlantic Ocean.

Unfortunately, during the last decades, my cousins –the rest of the rivers of the planet– and I are having a lot of health problems due to people's irresponsibility. Before telling you about this, let's start by learning all the benefits that rivers have on the planet and all its living beings, including you.



TAKING CARE OF OUR RIVERS: QUICKSTART GUIDE



Now that you know all that my cousins and I do for the planet and for you, do you want to commit to take care of us?
Let's go!

LITTER INTOXICATION IN NATURE

Have you ever gone to the river to spend the day and found it full of rubbish? If you get annoyed by this, imagine me... Join with arrows the following bad practices with their respective alternatives:



And you, do you generate waste or not when you go on a picnic day to the river? What do you do with it? Do you have any tricks to avoid generating or throwing waste away when you go to the countryside? **Answer:**

CHALLENGES TO GET RID OF LITTER INTOXICATION IN NATURE:

Distracted tadpole

1



Always carry a rubbish bag with you to throw your waste away when you go to the countryside or the river. Afterwards, throw it away to the appropriate rubbish bin.



Smart terrapin

2

Replace all items you take to the countryside with reusable, non-wasteful and non-polluting items.

Powerful otter

3



Create a "Garbage collection Committee" in your school to raise awareness of this problem.



Aquaman

4

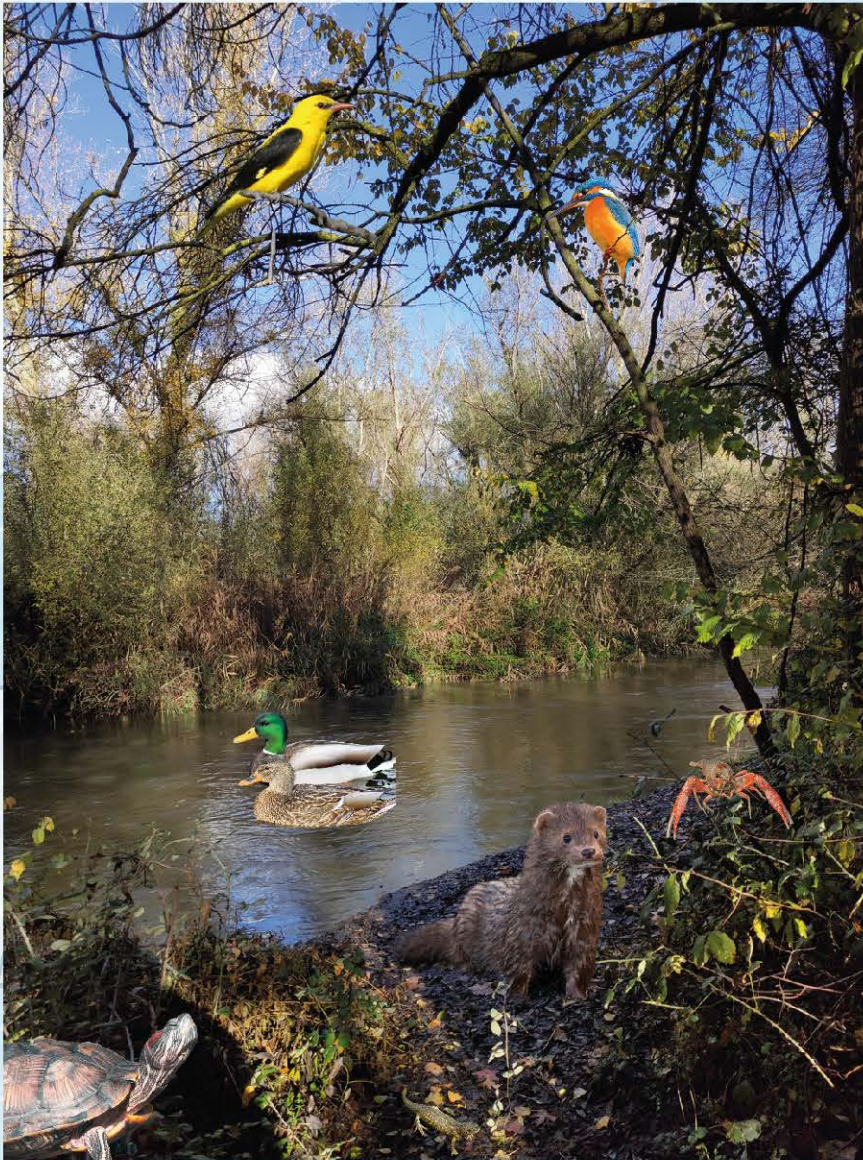
Organize a "Garbage Collection Day" with your friends and family in a natural environment next to the Guadarrama River, or in your nearest river.

TAKING CARE OF OUR RIVERS: QUICKSTART GUIDE

“INVASIVE NEIGHBOURS”

Challenges to get rid of litter intoxication in nature.

In recent times, living beings from faraway places have arrived to my riverbank. Despite what you might think, they have not arrived on their own: they have been brought by humans. We call these creatures “invasive alien species”. They are not to blame, but they are causing many problems to the plants and animals that already lived in my water. Could you identify the invaders in the image? **Circle them!**



Do you know what the **scientific name** is? It is a way of naming living beings, so that anyone, regardless of the language they speak, knows which species they belong to. For this, Latin is used. The scientific names of the invasive alien species in the image are:

- *Procambarus clarkii*

- *Neovison vison*

- *Trachemys scripta*

Look them up online to check if you are right. Investigate the damage they can cause to the species that are local species (native), and try to identify the names of the native species in the image.

Have you or someone you know ever had an exotic pet? Do you know where it came from? Now that you know the problems that the presence of these species can generate in native species and ecosystems, would you buy one? **Answer:**

CHALLENGES TO AVOID DAMAGE OF OUR INVASIVE NEIGHBOURS:

Distracted tadpole

1

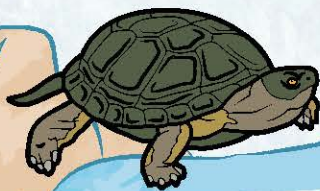
Find out which plants and animals are the native inhabitants of Guadarrama River. Draw a picture of the ones you like the most, trying to include a variety of species (plants, amphibians, reptiles, birds, fungus...).



Smart terrapin

2

Find out which invasive alien species have reached the Guadarrama River. Add them to your drawing and make a presentation in class about the damage they cause.



Powerful otter

3

Create a "Biodiversity Commission" at school and design a campaign to raise awareness about the problem of invasive species. You can make a big mural on one of the playground's walls.



Aquaman

4

Organise a trip by the river in Spring to try to find any of the invasive species you have studied. Plants are easier to find! Research the InvaPlant initiative and join it.

TAKING CARE OF OUR RIVERS: QUICKSTART GUIDE

"DROP BY DROP, THE RIVER DRIES UP"

Surely you know that water is essential for life. But did you know that only 3,5% of the planet's water is fresh water? And that only 1% of this fresh water is available for human consumption? This water is not only carried by rivers, but also by lakes, rainfall and groundwater. We must take care of water and not waste it! Would you be able to find out how much water you use on a daily basis? Let's calculate it...

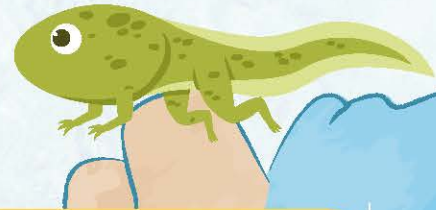
ACTIVITY PER DAY	NUMBER OF TIMES	LITRES OF WATER CONSUMED	RESULT
How many times do I brush my teeth with the tap running?		30	
How many times do I brush my teeth with the tap turned off?		1,5	
How many times do I empty the entire toilet tank?		13	
How many times do I empty half a tank?		6	
How many times do I take a shower?		52	
How many times do I take a bath with the bathtub full?		200	
How many times do I wash my hands?		1,5	
How many glasses of water do I drink?		0,25	
How many times do we put the dishwasher on at home?		34	
How many times do we wash the dishes by hand?		100	
Litres consumed per day			

Wow! That's a lot of water, isn't it? Think of 4 actions you can carry out to reduce your water consumption. No need to stop showering or brushing your teeth, hehehe. **Answer:**

CHALLENGES TO REDUCE YOUR WATER CONSUMPTION:

Distracted tadpole

1



Do these calculations with your classmates to find out how much water you all use. Write it down on a piece of paper and put it on the classroom door, together with any ideas you can think of to reduce your water consumption.



Smart terrapin

2

Encourage other groups to do the same calculations and hang them on the classroom door. You can implement consumption reduction measures and recalculate the figures each month. Which class will manage to reduce its consumption the most throughout the year?

Powerful otter

3



Organise the “Water Week” with workshops and events to raise awareness of the challenges of water conservation, as well as the measures that are being carried out to take care of it around the world. You can invite families too!



Aquaman

4

Organise your school to carry out a water “eco-audit”. Canal Educa has all the materials on its website:

<https://www.fundacioncanal.com/canaleduca/actividad-educativa/ecoauditoria-del-agua/>