

1ST, 2ND AND 3RD YEAR PRIMARY SCHOOL

The mysterious case of the dirty water

Environmental awareness activities.
Sanitation

Canaleduca



Introduction

More and more people are becoming aware of the **solid waste** that pollutes our water, particularly the problem that, for some time now, has been causing what we call **emerging waste**.

What is this waste? This group includes wet wipes, cotton buds, leftover food, medicines, fats and oils.

To raise awareness and to work on how to dispose of this waste properly, at Canal Gestión we have created the character of Matilda, an inquisitive and likeable girl who, at only 5 years of age, is able to instil greater environmental awareness in both adults and children.

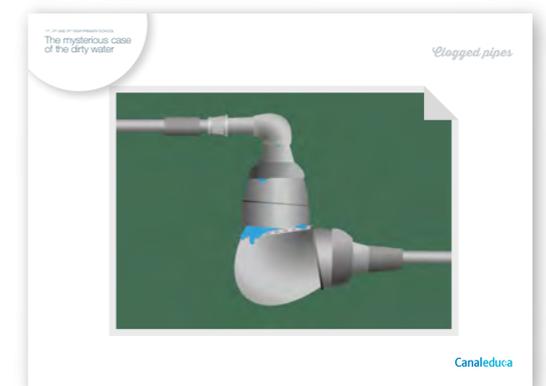
At Canal Educa we have designed this activity —in which both your students and Matilda play leading roles— so that you can work on how to **manage this waste correctly**, especially the waste generated in children’s daily lives.

What does it involve?

We have designed a **participatory activity** for you to do in the classroom that encourages the students to think and stimulates their curiosity, while encouraging their active involvement as part of the solution.

What information will you find?

- Type of activity
- Brief description of the activity
- Objective
- Contents developed
- Duration of the activity
- Materials required
- Instructions for the activity
- Suggestions or ideas
- Printable material and links for downloading



Introducción

Do you want more?

If you want to see Matilda in action, and learn her secrets in the fight against wet wipes first-hand, take a look at this fun [video](#). 

Share it with your students!

You also have access to educational posters that you can put up in your school or distribute amongst your peers at www.sumatealretodelagua.com or by clicking [here](#).



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The mysterious case of the dirty water

Activity worksheet



60 minutes



What are you going to do?

Matilda's mother is a technician in a wastewater plant. Lately she has been very worried because one of the stages the water goes through to be cleaned is breaking down almost every week. It is precisely the stage at which the solid waste coming from houses, schools and streets is eliminated. Even the town's Angling Society has sent a letter to the local newspaper complaining about the poor quality of the river water: there's rubbish floating in it! If the wastewater plant is not working properly, rivers may become polluted with plastic, wet wipes, cotton buds, etc.

Matilda, who is a very curious child, wants to help her mother. One day she sneaks into her office to look for clues about the problem and finds her mother's briefcase. There's so much information! As she does not know what is important, she takes all the material she finds and puts it in her backpack, but as she is doing so... it gets all mixed up!

Your students have to help Matilda **reconstruct the facts of the "case"** by analysing the clues and the contents of her backpack.

Objectives

- Get to know the integrated water cycle facilities.
- Identify appropriate ways to manage solid waste.
- Acquire responsible water use habits.

Contents

- Integrated water cycle.
- Correct disposal of solid waste.

Materials you will need

- Contents of Matilda's backpack:
 - Printouts: integrated water cycle puzzle
 - Printouts: sanitation stages puzzle
 - Sample 1: a jar with water and a cotton swab, a plaster, half a wet wipe, a piece of paper, hair, food scraps, etc.
 - Sample 2: a jar with clean water
 - Interview: angler witness account
 - Photo: clogged sewer grate
 - Drawing: clogged pipes
 - Action cards
- Printout: *Letter to the families*.

How to do the activity

1 Prepare the backpack with its contents beforehand.

For this you will have to print the images and cards in the Annex at the end of this worksheet or at the following links:

- Printout: [integrated water cycle puzzle](#).
- Photo: [clogged sewer grate](#).
- Drawing: [clogged pipes](#).
- Interview: [angler witness account](#).
- Printout: [action cards](#).

2 To begin, ask your students **various questions** to gauge their knowledge on the subject: Where does the water from the tap come from? What do we call the water that you can drink? Where does the water go when we flush the toilet? And when we wash the dishes?

3 Tell your students this activity is an investigation. Give them the context of the story and introduce Matilda and her backpack (previously prepared).

4 Next, you or some student volunteers will **take the clues out** of the backpack one at a time and see what items Matilda managed to get her hands on in her mother's office. They will have to analyse the clues by answering different questions. For example:

- What is it?
- What do you see in the picture?
- Where does this happen?
- Where could it come from?



Together, you have to put together the **integrated water cycle puzzle**, and then place the rest of the clues on the puzzle. This way you will be able to see more clearly where the problem is and what has happened.

Tip: You can do the integrated water cycle puzzle in teams, printing as many copies as there are groups.

5 Once the students have placed each **clue on the corresponding stage of the integrated water cycle**, they have to answer the following **questions** to find out the source of the problem:

- Where did the problems occur?
- What caused them?
- Can they be solved? How?

6 Finally, remind them of Matilda's mother's problem. Do they know what caused it? Your students should clearly identify what has caused the treatment plant to not function properly and why:

Solución

The wastewater treatment plant is not functioning properly because of clogged grates caused by

the accumulation of wet wipes and solid waste that reaches this facility, and which produce major blockages. This waste come from households, schools, etc., where there is excessive consumption of wipes, which end up in the sewers. Although their packaging states that they are biodegradable, they do not disintegrate and reach the treatment plants whole.

Solid waste from households, especially wet wipes, produces major blockages in wastewater treatment plants and in the sewer pipes of housing communities.

The solution? Very simple: use the bin!

7 Finally, your students have to **write a letter to their families** to explain the problem caused by solid waste and the solution to avoid it. We have prepared a sample letter for them to use.

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