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# Funded by the European Union

#### Riversavers' Handbook

The first volume of the Clean Tisza Textbook Series.

E-book, first digital edition.

Published in English and all the languages of the Tisza River Basin (Ukrainian, Romanian, Hungarian, Slovak, Serbian) in the 5in1 project.

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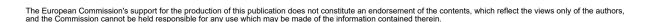
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2023





Frasmus+





# OUR GOAL

The Riversavers' Handbook is designed for educators, environmental educators and experts who are interested in rivers and love living water. Published in Ebook format in all Tisza languages, the aim of this book is to start raising a riverfriendly generation, regardless of national borders. The Erasmus+ 5 Countries 1 River (5in1) programme, a partnership between Ukraine, Romania, Slovakia, Hungary and Serbia between 2020 and 2023, will provide children with basic river literacy through playful, light-hearted activities to help clean up the polluted Tisza River. The book is intended primarily as an educational tool for primary school pupils, but its friendly and direct tone makes it a welcome addition for teachers and environmental educators working with upper secondary or secondary school pupils. If you like this book, we recommend you to read the other teaching aids in the 5in1 series. In the spirit of open science and education, the entire Clean Tisza Textbook Series can be downloaded free of charge from the multilingual Clean Tisza website.

www.tisztatisza.eu

#5in1



1. figure: Riversavers prepare for a workshop with kids, and Captain Plastic, of course. Photo: Boglárka Rosta, Plastic Cup initiative



2. figure: Floating riverine litter accumulation after a plastic flood. Photo: András Lénárt, Plastic Cup initiative

# FOREWORD

#### Dear Teacher colleague!

You may know how big a problem river pollution is nowadays, including the amount of plastic in our waterways. We thought we would try to think long-term and prevent further river pollution. We are asking for your help in raising a new generation of eco-friendly, nature-minded, river-loving people. We are happy to give you the RiverSavers' Handbook, compiled by educators from five countries (Ukraine, Romania, Hungary, Slovakia, Serbia) with the help of the <u>Plastic Cup initiative</u>. We were able to carry out this work with the support of the European Union in the framework of the 5 Countries 1 River project under Erasmus+. With the Riversavers' Handbook, we want to awaken the interest of more children and adults in rivers and the creatures that live in them. Our aim is to raise a new generation of river-lovers who live in harmony with their environment. To do this, we've created an experiential, fun, interactive and personalised learning toolkit, the first volume of which you are now reading.

The River Rescue Manual consists of 8 chapters and a bibliography. It is an e-book, or digital book, all parts of which can be read on a laptop, tablet or even a mobile phone. At first it may seem strange to work from a digital book, but trust us, you will get used to it over time. The eight chapters contain enough knowledge, learning material and related exercises to cover at least 8, but up to 16, consecutive sessions. 8-16 sessions is not an exaggeration, because some of the sessions can be done inside the classroom, but many of them can be done outside in nature. If you work within four walls, the material covered in a chapter can be covered in 45 minutes. But if the conditions (weather, infrastructure) allow for a more extensive explanation or for working outdoors, a chapter can be used to cover several hours. Be warned, there are two chapters that can definitely be worked on outside in the open air.

If you're with us and you're trying to turn the children in your care into riversavers, we suggest you don't print the whole document. You'll save costs and produce less waste. Each chapter is built around a central message, a letter. For the sessions, you only need to print one copy of these letters in A4 size. All the necessary supplies are available free or cheap. The Riversavers' Handbook is primarily designed for primary school pupils, but is also suitable for training upper secondary school pupils. For older children, we suggest that you explain why the language of the letters that form the basis of the chapters is so simple (so that the little ones can understand), but once you get past that, there is no reason why you can't work together. If you like the Riversavers' Handbook, we have good news! Three other volumes have been produced as part of the 5 Countries 1 River project. You can find the other publications in the Clean Tisza Textbook Series - and many other useful teaching aids - on the Clean Tisza website. Importantly, thanks to the support of the Erasmus+ programme, all the volumes are free to download in each of the Tisza languages - Ukrainian, Romanian, Hungarian, Slovak and Serbian.

Thank you for your help on behalf of the river and all its inhabitants! We wish you good work!

Attila Dávid Molnár, Annamária Farkas, Zsuzsanna Bitter, teachers from the 5 countries 1 River project, and the riversavers of the Plastic Cup initiative.

2023 August

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# 1. INTRODUCTION

# GENERAL GUIDELINES



You might agree with us that what children love, they will defend. The aim of this first chapter is to draw attention to rivers and get children interested in flowing natural waters. If the session is successful, children will realise that a river is not just the water they see. It comes from somewhere, it has a history, a past. It also has a future, since almost all rivers eventually flow into the sea. This is the basis of river literacy and the first tenet of river savers: what happens to the river is felt in the oceans. In other words, all waters on the surface of the Earth are connected. Streams, rivers and seas are interconnected, forming a network. But how do we make children understand this? Our suggestion is to reach our destination in an almost imperceptible, adventurous way, using an ancient messaging tool, the bottle post. To make it easier for you, we have copied the messages of Peter and Lisa, the two riversavers, for you. All you have to do is print out the message and make a simple drawing on the back, a kind of blind map. Use dots to mark the main riverside settlements and an X to mark the place where you will hide the bottle post. The children's task is to draw the river on the picture. If you don't have the opportunity to go to the riverbank, prepare the bottle post for play. Roll up the paper with the drawing on the back, tie the blue string around it and place it in the bottle. Seal the bottle with the cap. FYI, there are detailed instructions at the beginning and end of each chapter! This will give you more detailed suggestions and solutions than just tips, and will help you to get ready for class in as little time as possible. You will need these for the session:

- ✓ 1 dry, clean plastic bottle with a cap;
- ✓ 1 piece of long, thin blue string, twine or ribbon (minimum 2 metres, ideally 7-10 metres);
- ✓ 1 printed bottle post message;
- ✓ 1 line drawing with the river line on the back of the bottle post message;
- ✓ 1 pen or waterproof marker;
- ✓ 1 large folder or album (future Riversavers' Diary).

**TIP:** Download this book to your smartphone and take it with you! If you're outdoors and feel unsure, you can always read it. The Riversavers' Diary doesn't have to go in an official binder. It will be a kind of scrapbook, where you can paste or pin your writings and drawings from the sessions. It is also a good idea to make the cover of the diary together with the children, for example from used cardboard. The bigger the diary, the better!

ATTENTION: On the next page will be the MESSAGE IN THE BOTTLE. Print the message with the back cover, it will come in handy at the session! If you don't print the whole book, just the selected pages, you will save paper and costs, and you will also save the environment. To keep it playful and charming, cut the printer icon from the top left corner with scissors.





# Hello!

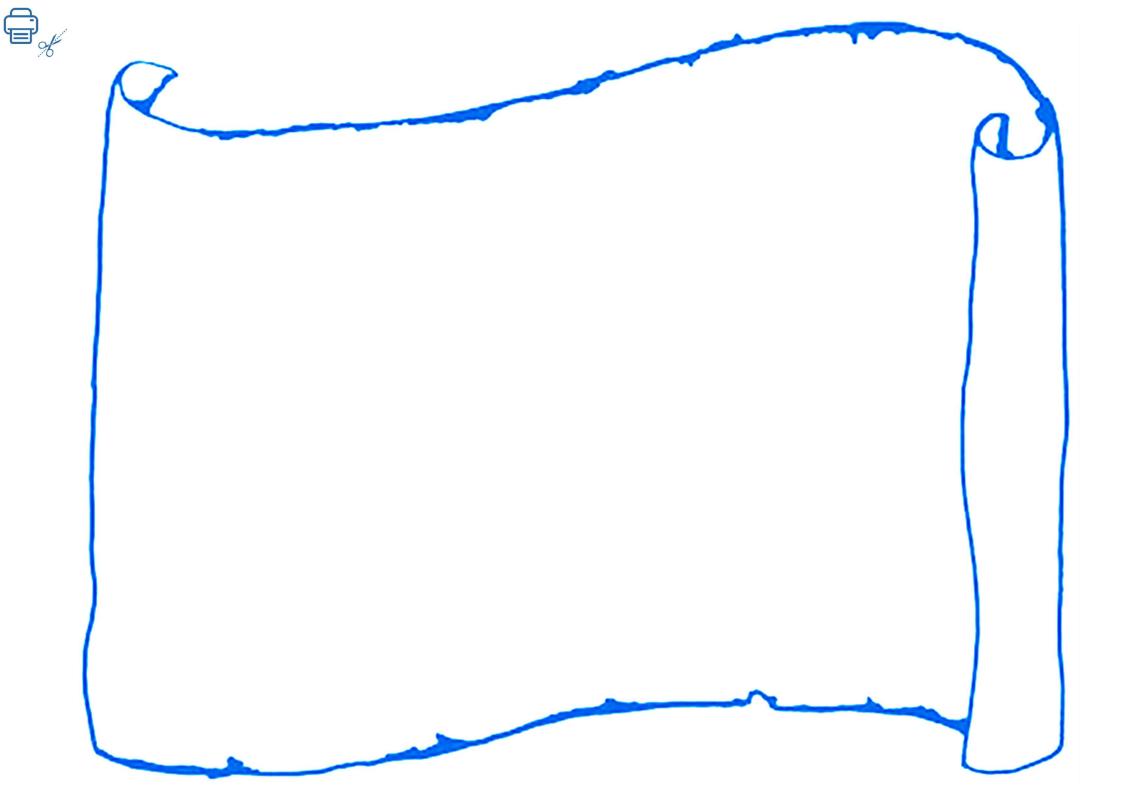


They call us Lisa and Peter· We are in this drawing and we wrote this letter· We both go to the same school and we are very good friends. We wrote this message to ask you for help. We walk a lot on the riverbank. We like rowing, fishing and sunbathing on the beach. But lately we have noticed that there is a lot of plastic in the water. Do you have a river or stream? Have you ever seen litter in the water? Then you agree that we can't let this happen! Come and join us! Be a riversaver too! But don't go it alone! We learned everything from Prof: Greenheart and Captain Plastic. That's how we became riversavers. Riversavers are the people who know a lot about rivers and do something about them. Do you know what the first rule of riversavers is? That what happens to the river will eventually be felt in the oceans. So if we clean up the river, there won't be so much plastic in the sea! Do you agree that it's important to keep litter out of the water? Then join us and we'll be happy to teach you how! Follow the instructions in this letter! If you join us, you'll also learn what it's like to really treasure hunt and explore. But that's not all! You'll soon find out what, or more precisely: who, the kingfisher, the sterlet and the beaver are, and how much they have to do with sharks, whales, dolphins and turtles. If you're a riversaver, you'll also know that the tiny trickling stream, the big river, the sea and the ocean are all connected. Ready for an adventure? Then follow the blue ribbon! On to treasure hunting, adventure, save the rivers! Bye!



## Lisa and Peter

P·S·: on the back of the message you will find a drawn line, there will be a little puzzle to solve if you are clever· Also important: this bottle is not rubbish, but a message of help. We've thrown it in the river to reach those who don't know that rivers are in trouble· Keep it· Keep the letter and the blue ribbon· Of course you can throw the bottle away, but only in the recycling bin· Thank you very much!



# 1.1 GROUP TASKS



# 1.1.1.

Look carefully at the map on the back of the message! On the map you will see the names (or locations) of settlements to help you find your way around. The first task is to draw the line of the river on the map. The line of the river where you found the bottle. When you are ready, you can answer these important questions. Where do you think this message could have come from? How far did it travel to get here?

**TIP:** Make it easy for your children to draw the river with a few landmarks, such as mountains and towns. For the time being, ask the children to draw the map "upstream" from where they found the bottle, i.e. towards the source area, trying to find out where the message is coming from. At the beginning, while they are not sure where the river meanders, children use the blue string. Only when they have the correct line written on the string do they use a pen or marker. Older children can also draw on it the compass known from nautical charts.

TIP: You can browse the map of the Tisza catchment area in more detail on the Clean Tisza Map.

# 1.1.2.

If the children are interested, gather them around you and discuss the following questions. Who wrote this message? Who are the people writing this letter asking for help? Are they trying to help themselves or others? What kind of people do you think Lisa and Peter are? List their qualities! Do you know what a kingfisher is like? Describe what a kingfisher looks like, how they live, or if you don't know anything about them, guess! Why did Peti and Liza write that a bottle with a message is not rubbish? Where do you throw the bottle out if it is made of plastic? If you've made the map, you've guessed the answer: approximately where could they have written the message? Guess what difficulties and obstacles the bottle post had to overcome to get to your hands?

# 1.1.3.

Make an album! Choose a good big stapled binder, or make a cardboard cover and insert the bottle post! You can name it Riversavers' Diary or whatever you like, and collect pictures and drawings from the sessions!

# 1.2 INDIVIDUAL TASK



# 1.2.1.

If you're on the riverbank and there's an opportunity for individual work, choose River Watch! Sit by the water and close your eyes. Count to at least 100 and stay like that. Try to remember what sounds you hear and what they are coming from. Then open your eyes and look around carefully. Count to at least 100 and listen. Write down what you heard and what you saw.

TIP: Children can draw and write down their experiences. They can write down their experiences and describe them.



3. figure: The Tisza's affluent river Mures, shortly before its estuary into the Tisza. Photo: Csanád Ivánfi, Plastic Cup initiative

# 1.3 ONLINE EXERCISES



#### 1.3.1.

Look at this photo and read this description of the kingfisher.

Make a drawing of the kingfisher as you imagine it. Now make a drawing of a water bottle floating on water with the kingfisher somewhere on it. If you found the bottle post out on the river, write an essay about what it was like to be there on the river bank.

#### 1.3.2.

Check out the new episode of the 5 Countries I River project's educational film series!

Choose the subtitle that corresponds to your native language from the settings. When the subtitle appears, start playback! Discuss with each other what was interesting about the film. If something in the film caught your interest, search for it on the internet and show others what you found!

#### 1.3.3.

Read this interesting article about a fairytale message in a bottle and a wish come true. The original language of the article is Hungarian. If you don't speak Hungarian, no problem! Use the translation option in your browser or copy the text into an online translator, such as the free Google Translate. Discuss what was interesting about the story. Compare Peter and Lisa's bottle post with the story in the article.

# DETAILED GUIDELINES



#### Guidelines for a letter:

If your kids are younger and like surprises, place the bottle post in advance, in secret, so they don't see it. If your kids are older, or you can't go to the riverbank, tell the truth: you got a bottle post from the riversavers, that's us, the authors of this book. On the riverbank, make sure that children don't get too close to the water, do not let someone slip in or get wet. Open the bottle together and take out the paper wrapper. Untie the blue string and unroll it from the message. On the paper is a drawing and some text. Read it carefully! It is important that you all know exactly what is in the message. In the open air, a sufficiently long ribbon can make map-making even more spectacular and exciting with a few pebbles and sticks stuck in the ground. To draw the river line, use the blue ribbon that the message was crossed with!

#### Guidelines for group work:

Who wrote this message? Answer: Lisa and Peter

How old can they be? Answer: primary school students, children aged between 6 and 10.

Who are the authors of this letter asking for help? Answer: Riversavers, who seek help. Not for themselves but first and foremost the river and the polluted creatures that live in it. Do they want to help themselves or others? Answer: Clean water means life. Fresh, clean water is essential for the survival of humans and nature. Rivers are valuable sources of fresh drinking water for people around the world, vital ecosystems for many species. People depend on rivers for their way of life and livelihood. From fishing to agriculture, water has a direct impact on people's lives. Rivers provide the water we need to drink, grow food and other crops, produce energy and make all kinds of products. Rivers are transport routes and provide an important source of food that feeds millions of people (fish farming).

What kind of people do you think Lisa and Peter are? List their supposed qualities! Characteristics: active, animal-loving, brave-daredevil, goofy, compassionate, cooperative, energetic, inquisitive, original, imaginative, quick-witted, playful, adventurous, enthusiastic, inventive, etc. Children who like outdoor activities, especially spending time by the river, but are also good at using technology. They are always looking for new adventures and like to help people and animals alike. They often get into trouble because of their curious nature. Some adults may think they are odd or rebellious, but only those who are active and nature-loving really understand them.

#### Did you know?

Over the past ten years, the Plastic Cup initiative has found dozens of bottle piles, many of which have travelled for several years and hundreds of river kilometres. So the challenges may include not only distance, but also cold and ice, snow or summer heat, or boats. Plastic Cup volunteers carefully catalogue and preserve this messages. They are not treated as riverine litter, but as small treasures given by the river.

# 2. SAFETY FIRST!



# GENERAL INFORMATION

In the second chapter, the children continue to think about the river in an unobtrusive and fun way. They now look not only upstream, towards the headwaters, but also downstream, towards the estuary. Meanwhile, also thanks to a letter, they learn about the behaviour of pollution in the water. With older students, it's worth considering that pollution can enter the river in even invisible forms (microplastics from a washing machine or chemical pollution). But as interesting as rivers are, and as distressing as pollution is, nothing is more important than the safety of children and your own safety. The aim of the second chapter is to ensure that everyone moves carefully and cautiously along the riverbank, and that no injuries are even accidentally caused during the activities. The second rule of river literacy is that rivers give life, but they can also take life. Think of the floods, the treacherous silt, the floating driftwood, or the deep, swirling water. It should be stressed that the Riversavers' Handbook includes land-based, shore-based activities, but as many activities take place near water, and many older children are already paddling or swimming, it is important to be aware of the risks. In this chapter, we prepare children for these, while also talking about river pollution. This lesson is also based on a letter, this time from Professor Greenheart, Lisa and Peter's teacher. Print out the letter and draw a sketch of the classroom on the back. If you're teaching the activity to older children, leave the back blank - older pupils can be left to do the whole drawing. After printing the letter, put it in a geography atlas, preferably where the river nearest to your school is marked. Run the blue string from the letter to the classroom bin. Next to the bin, put at least two types of plastic and a piece of cardboard, PET bottles and packaging material made of ethylene or propylene (e.g. yoghurt cups) are most recommended. You can easily identify the plastics in advance by the markings on the packaging. PET i

- ✓ 1 dry, clean pill bottle with cap;
- ✓ 1 piece of long, thin blue string, twine or ribbon (minimum 2 metres, ideally 7-10 metres);
- ✓ 1 new message printed;
- ✓ 1 line drawing of the classroom on the back of the message;
- ✓ 1 pen or waterproof marker;
- ✓ 1 lavoor;
- ✓ 2-5 types of waste;
- √ 1 geographical atlas or map;
- ✓ blank page;
- ✓ tap water.

ATTENTION: On the next page will be the MESSAGE IN A BOTTLE. Print the message with the back cover, it will come in handy at the session! If you don't print the whole book, just the selected pages, you will save paper and costs, and you will also save the environment. To keep it playful and charming, cut the printer icon from the top left corner with scissors. We have attached a floor plan of a general classroom equipment on the second page. If your classroom isn't like this, choose from the floor plans on this website, or make your own hand-drawn one!





# Dear Children!

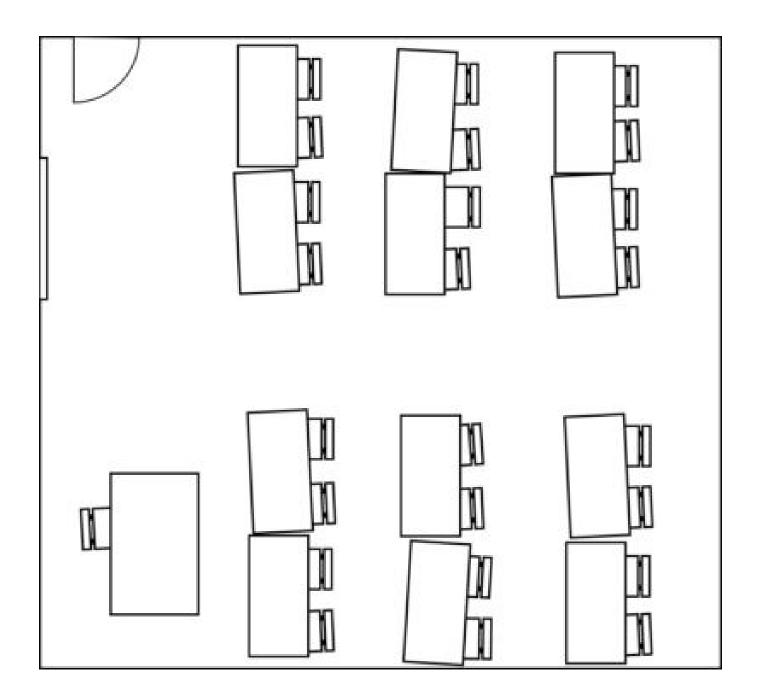
Congratulations, you are very good. So you found the bottle post the other day, and based on it, i.e. the blue ribbon, you have now found my coded message. Let me introduce myself. I'm Professor Greenheart, I teach Lisa and Peter. I wrote this letter and I'm the one in the drawing. I love nature very much and I love both Pete and Lisa. I would like to help them to find as many new, enthusiastic and young river rescuers as possible. So I thought up this blue ribbon game, I hope you will like it. For me, the blue ribbon represents the winding waters of the river. Fortunately, many people besides me think of blue as water. For example, it is always used on maps to indicate rivers. With a blue stripe. For example, in the atlas that's on the table here, you can see that it is. If you turn this message over, you will find a map on the back of the paper. I ask you to look at it very carefully. The blue line will lead you to the source. If you are clever, you will soon see why I wrote "to the source". I really hope that you will succeed in the tasks ahead of you. Good luck!

Save the river!
Professor Greenheart

P.S.: As well as the map, let's not forget to be careful. When you are near the river, respect this big water! The second law of riversavers: the River gives life, but it can also take it away. In summer, with parental supervision and a life jacket, you can of course swim. But in the cold months it's a different story. The shore can be slippery and muddy. Wear hiking boots or wellies with serrated soles before hiking along the river. Move slowly and carefully near the river. Don't approach the river more than a metre and a half. Don't slip into the water! If you have any questions, ask the adults for help!







# 2.1 GROUP TASKS



#### 2.1.1.

Look carefully at the map on the back of the message! On the map, you can identify the classroom and its main elements (door, teacher's desk, window). The first task is to draw the blue ribbon on the map. This represents the river on our map. You have already seen where the river leads (atlas), but where does it come from? Follow the trail of the river all the way to the trash can. You will find more objects near the dustbin. An empty tin can, a cardboard box, an empty glass bottle and a plastic bottle, and an empty bucket. Fill the bucket with water. One by one, put the objects you have prepared next to the bin into the water and observe how they behave. On the map you have to place four numbers. Number one is closest to the bin. Number four is the furthest. Imagine that the river pours out and washes away all four types of waste from the shore. Sit together and discuss that after falling into the river, which waste stays near the source and which travels furthest away from it? To give the best possible answer, answer the following questions. What happens to cardboard when it is in water for a long time? What happens to cans, bottles and pill bottles in water? Also, think about what happens to the glass bottle if the cap stays on and what happens to it if it is not stoppered? When you are ready, place the objects next to the blue ribbon representing the river, next to the number you think they belong to, and explain why?

TIP: Have the children choose one of them to write down what they see and one of them to summarise what they see. Attach the finished map and Prof. Greenheart's letter to the Riversavers' Diary.

TIP: Practise with the children what the left or right bank of the river is called! The solution: put yourself in the river's shoes and imagine you are going in the direction it flows. In other words, turn your back to the source and face the mouth. The right bank of the river is on your right hand, and the left bank is on your left.



# GROUP TASKS, CONT.

#### 2.1.2.

Form two groups! Sit in a circle! One group describes what to look out for on the waterfront, near rivers. Everything from slippery banks to cold water and flooding can be mentioned. The other group tries to put themselves in the river's shoes and tell what people do to endanger the river? Everything from bathing with suntan lotion to plastic pollution to motorboats or dams. Both groups tell us what they found, then try to find overlaps and similarities between the two lists. For example: pollution is a threat to the river, but if pollution continues, it is a threat to people. Or: if you throw a bottle and it breaks, the shards can harm other living things. For example: cutting the leg of a deer or a dog or small child walking on the beach.

TIP: If necessary, speed up teamwork. For example, when splitting up the group, you can save time by asking the children to put their hands up at the same time. Whoever puts their right hand up will be one team and whoever puts their left hand up will be the other team. Have the children choose one of them to write down what they see and one of them to verbally summarize what they see. Attach the finished creations to the Riversavers' Diary!

#### 2.1.3.

Imagine that you are now riversavers too! How, what precautions, what foresight, what protective equipment would you use to prepare for the action? Make it a real "brain storm". After a little thought, everyone is free to share your ideas! Choose one of you to describe or draw what you hear.

TIP: Let the kids in on the rules of brainstorming. Tell them there are no bad ideas and that all contributions are encouraged with kind words and praise. Negative criticism while brainstorming is not helpful. Those who dare to speak up, who share their opinions with others, should get high praise. Write down your comments, however off the wall, on a piece of paper or on the board. When writing, don't follow lines, don't write words one after the other, but in an idea-like way, spaced out. Use several colours when writing the words. At the end, analyse the resulting word cloud together. Once you have the word cloud on paper, record the result of the brainstorm in the Riversaver Diary!

# 2.2 INDIVIDUAL TASKS



# 2.2.1.

Look at this picture of the beaver. Read this <u>Wikipedia</u> <u>article</u> about the beaver. Draw a picture of the beaver so that you can see at least some riverine litter in the picture.

# 2.2.2.

Write a short essay about what equipment you need for hiking on the riverbank and why caution is recommended with natural waters. If your teacher allows it and you don't feel like writing, you can also draw a picture of a prepared hiker. If you choose a drawing, add some explanatory captions to the artwork!

**TIP:** Well-done, heartfelt creations can be included in the Riversavers' Diary.



4. figure: Eurasian beaver. Photo by Per Harald Olsen, CC BY-SA 3.0 <a href="http://creativecommons.org/licenses/by-sa/3.0/">http://creativecommons.org/licenses/by-sa/3.0/</a>, via Wikimedia Commons

# 2.3 ONLINE EXERCISES



# 2.3.1.

Go to the <u>Google Maps</u> page. Follow the line of the river Tisza. Follow the line of the Danube River. Look for big rivers on other continents. See where they get their water from and where they get it to. Also see how many countries they flow through. Why do you think the Danube is the most extraordinary river in the world? Then look online at the <u>Clean Tisza Map!</u> Select your country in the top left corner. See if there are any polluted river banks or places.

#### 2.3.2.

Check out the new episode of the 5 Countries I River project's educational film series!

Choose the subtitle that corresponds to your native language from the settings. When the subtitle appears, start playback! Discuss with each other what was interesting about the film. If something in the film caught your interest, search for it on the internet and show others what you found!

#### 2.3.3.

Check out this picture of a riverine litter accumulation. Then imagine yourself in the place of one of the bottles in the picture. Think about how you got here, the hardships you went through, and tell the others about it. Then listen to the teacher. He or she will show you a smartphone app called <u>Trashout</u>. Together you can look at the <u>map</u> that you can make with the app.



5. figure: Coastal riverine litter accumulation close to Tiszaszalka. Photo: Gergely Hankó, Plastic Cup

# DETAILED GUIDELINES



#### Guidelines for a letter:

In the second lesson, the children move up a level in their knowledge of the river, so far looking towards the source region, i.e. the sender of the message in the bottle. But in the second lesson, they will walk the water's journey downstream, or "valley walk" in the technical term, to the sea. It comes together in their minds that there is a direct link between rivers and seas. In addition, children learn about the behaviour of the main types of waste - plastic, paper, glass, metal - when they enter the water. Children understand that the pollution that is washed away by the water does not disappear, it will reappear somewhere and cause problems for people living near the river. Activity 2 can be implemented both outdoors and in the classroom. Instead of thin ribbon (easily blown away by the wind) on the bank, we suggest rope or spars. In this lesson, we also learn about a new living organism and understand the behaviour of river litter and how riverine litter accumulations or dumps are created. The lesson also teaches precaution, with different types of waste behaving differently, and points out that water is a dangerous and dynamic environment, and must be respected. On the back side of the bottle message is a classroom map, the basics of which we suggest you draw by hand. It is recommended that at the end of the tasks you hold a summary, making sure the children have understood the main messages. You may have noticed at first glance that in our book on the topic of precautions and hazards, we have not limited ourselves to the dangers of rivers, but have shown that we humans are also dangerous to rivers. One of the main messages of this session is that we can only be safe, we and the river, if we respect each other and look after each other. After each session, give a summary. In the following lines we give you some guidance.

#### Guidelines for group work:

In the second chapter, children are introduced to the basics of waste mapping and the flow of river waste. This requires a basic understanding of the physical properties of waste (e.g. cardboard disintegrates in water, glass bottle sinks when full of water, etc.). For plastics, it is very interesting that PET bottles also sink when full, but ethylene and/or propylene do not. It is useful to point out that PET bottles also float if the cap is put back on after use, and in the experience of riversavers show this is usually the case. Otherwise, hundreds of tons of bottles would not float in the rivers, but would all sink! For a map study, it is useful to know that the Tisza is the longest tributary of the Danube (966 km) and the second largest in terms of flow after the Sava. The countries of the Tisza basin (Ukraine, Romania, Hungary, Slovakia, Serbia) have agreed to strengthen cross-border cooperation to achieve integrated water resources management in the basin.

The Tisza rises in Ukraine, crosses Romania and Slovakia before reaching Hungary, and then flows into the Danube in Serbia, which eventually carries the Tisza's water through Romania and Bulgaria and into the Black Sea. The place where a river flows into a lake, a larger river or the ocean is called an estuary. As the river flows, it picks up sediment from the river bed, erodes the banks and carries the waste in the water. The estuary is the place where most of the gravel, sand, silt and clay - called sediment - is spread out and deposited.

You may have noticed that in the second chapter of the Riversavers' Handbook, there are several group workshops on risks and precautions. Safety is vital when organising a river cleanup operation. Whatever the activity (you will see later that there are many things we can do for rivers, from simple excursions to river cleanups and adoptions), the first step is always to choose the right section of river, and to get the right tools and equipment. A river section is suitable if it is easily accessible, not too steep, not too close to heavy traffic and has natural values (e.g. good air, quiet, old floodplain trees). The equipment and precautions are appropriate if you have arranged in advance for appropriate clothing (layered clothing, hiking footwear, brightly coloured hat, jacket so everyone is visible, hat, raincoat) supplies (food, water or hand sanitiser for washing hands, protective gloves for rubbish collection, even rubbish clips, sunscreen if necessary, mosquito repellent spray, even goggles are recommended for winter hikes when bare branches are difficult to see). Have a briefing at the beginning of each session! Remember to remind children to move together, within sight of each other.



# DETAILED GUIDELINES, CONTINUED.

Highlight what to do if someone has to go to the toilet. Also say what to do if someone gets lost and can't see the others. Move around loudly, be visible so that other people and animals in the floodplain forest are aware of your presence from a distance! When it comes to waterfront litter picking, only get involved if parents have been informed beforehand, have agreed to the outdoor program, if children have protective gear, and if they listen to you. Carefully grab the rubbish washed up by the river, usually already washed, and put it in a bag, wearing protective gloves. Bottles and heavy items should only be collected by adults. Refrain from litter that poses a hygiene hazard (e.g. toilet paper, condoms, animal carcasses), should be left where found, mark it for safety and keep children far away.

#### Guidelines for individual and online exercises:

In this chapter, we continue our exploration of the species that play an important role in the life of the river. The beaver is the second largest rodent in the world. It is herbivorous, feeding on the bark and shoots of young trees. It lives in families and family members "work" together. Beavers are sophisticated water engineers, building underground burrows with entrances underwater to protect themselves from predators. They also build dams. The beaver is a very friendly-looking animal, with a flat, scaly tail, a brown, thick fur coat, silky and waterproof, and small eyes and ears. It can close its nose and ears under water. On its hind legs it has webbed fingers. It has large long teeth, which it uses to chew on trees.

For the online exercise, it is useful to know that the Danube is the second longest river on the European continent, after the Volga. The Danube originates from two small streams that flow into a single channel at Donaueschingen in the Black Forest in Germany. The Danube is the most international river in the world, sharing its catchment area with 19 countries, 11 of which are EU Member States. The Danube basin is home to 83 million people. The river feeds much of central and south-eastern Europe, from the Black Forest to the Black Sea. It flows through Austria, Slovakia, Hungary, Croatia, Serbia, Romania, Bulgaria, Moldova and Ukraine. Among the many cities on the river are 4 capitals - Vienna, Budapest, Belgrade and Bratislava. The Tisza is the longest tributary of the Danube (966 km). A few kilometres south of the city of Szeged, the Tisza crosses the Hungarian border and enters Serbia. It finally flows into the Danube near the village of Stari Slankamen in Vojvodina, Serbia. The Nile is the longest river in the world. From central Africa to north-east Africa, it flows north through 11 countries, discharging 2,800 cubic metres of water per second into the Mediterranean. Only the Danube is more international than this, with 19 countries sharing its watershed! The second longest river in the world is the Amazon, which starts high in the Andes in the east of South America, flows through the world's largest rainforest, crossing seven countries and flows into the South Atlantic. The Yangtze in China is the longest river in Asia and the longest river to flow through a single country. From its source on the Tibetan Plateau to its mouth in the East China Sea, the river runs for 6,300 kilometres across China, winding through mountains for more than three-quarters of its length. The Yangtze is China's main waterway, and one third of China's population lives in the Yangtze basin. The Mississippi is the longest river in North America. Measured from its traditional source at Lake Itasca, the Mississippi River is 3,730 ki

Online tasks require internet access and a browsing device. If you are technically fit for the task, we recommend visiting Google Earth in addition to Google Maps! The landscapes are even more beautiful there, you can fly over the river as if you were in an aeroplane! If your class consists of children with smartphones, we recommend downloading the Trashout app. You will find this app useful for the litter mapping exercises in the next chapter.

# 3. LET'S MAKE A TREASURE MAP!



# GENERAL INFORMATION

Chart up, head for the riverbank! The previous sessions could be carried out outdoors and within four walls, but in chapter three you will find guidelines for working specifically outdoors. Don't worry, the basic activities are perfect to do with little ones, in all four seasons. Today's task is to make a 'treasure map' with the children. For now, there's no waste collection involved, just assessing where and how much riverine litter is on the nearby riverbank. As usual, this session is also kicked off by a letter. This time, the author is Captain Plastic, an old riversaver, who introduces the children to the third thesis of the riversavers: the river is vulnerable and needs protecting. His message also explains why it is important to discover the places where most plastic has accumulated. Never deal with litter thrown away or illegally dumped by the side of the road! These are the responsibility of other institutions. Only look after the waste that the river has transported and deposited on its banks. Riverine litter is easy to recognise, it shows that it has travelled a lot on the river and we learned in the previous chapter that almost without exception it has come to us floating on the water.

This chapter revolves around maps. It's worth diving into them, for example, we recommend the <u>Clean Tisza Map</u>, which you can browse in all Tisza languages. Here you can also look at the area you have chosen for the session. With smaller children, it is a good idea to prepare a paper map and mark the polluted areas with a pencil. If you are going mapping with older children and have the option of using a smartphone app, download the <u>Trashout app</u>. We have made a short <u>instructional video</u> on how to use the App. For waste mapping, find a nearby, easily and safely accessible, beautiful stretch of river as a location. It's perfectly fine if there's not a lot of litter on the bank. For children aged 6-10, any field exercise will be interesting, and with older children you can even visit a slightly more heavily polluted stretch of beach. Plan with a realistic distance appropriate to the age group. Check the weather forecast for the day of the trip. If the weather is bad, postpone the trip. Do not set off immediately after a storm or heavy rain, as it is difficult to move on wet ground.

Print out the letter, place it in a plastic bottle. If you have the opportunity, hide the bottle post in advance on the bank of the river. This may not be necessary for older students. When you get to the site, be sure to hold a briefing, check clothing and equipment as well. This should be done before you find the bottle post, as it will distract the children. Move with the lower school children in one group, with the upper school children you can split into smaller groups. It is also recommended to appoint and choose a leader. In both cases, discuss the programme, when and where you will meet. Remind everyone to avoid steep beaches and shores. It is important that no one goes near muddy areas, deep water and driftwood. If you come across a dead animal in the floodplain, avoid it. Do the same if you find a wasp nest. Charge your mobile phone thoroughly before mapping, it's a good idea to have a companion or helper with whom you can arrange a phone number and meeting point. Take a break from the session at regular intervals. Gather the children around you. Boys on the right and girls on the left should go to the toilet together if necessary Ask the children not to use a lot of toilet paper and to dig a little ole in the ground and cover it once they are done. In case of getting lost, advise that if someone accidentally gets separated from the others, they should call out loudly every minute. If help doesn't come but you can see the river, walk down to the bank and sit a safe distance from the water and wait. If you can't see the river, stay where you are and shout every minute. Help will come soon. If you talk all this through, there will be no problem and the trip will be a great experience for everyone.



# GENERAL INFORMATION, CONTINUED.

You will or may need the following supplies for the session:

- ✓ 1 dry, clean plastic bottle with cap;
- ✓ 1 piece of long, thin blue string, twine or ribbon (minimum 2 metres, ideally 7-10 metres);
- ✓ 1 printed bottle post message;
- ✓ 1 line drawing on the back of the letter, a kind of sketch map, with the section of the river you will be walking along;
- ✓ 1 pen or waterproof marker;
- ✓ with younger children, prepare several copies of maps and the necessary number of pencils;
- ✓ with older children Trashout download, mobile phone, powerbank;
- ✓ hiking equipment;
- ✓ perhaps a horn or a bagpipe used at sports events.

**TIP:** In addition to the necessary information and permissions, feel free to ask your parents or friends for help to make the activity happen! Ask the children if anyone is allergic to bee stings or wasp stings. If there are such children in the group and you are going mapping in the summer, ask a doctor's opinion before the hike, or take some medical supplies (histamine, antiseptic, band-aids, phenistil). If you go hiking in tick season, it's a good idea to spray insect repellent on children's feet and hats.

ATTENTION: On the next page will be the MESSAGE IN A BOTTLE. Print the message with the back cover, it will come in handy at the session! If you don't print the whole book, just the selected pages, you will save paper and costs, and you will also save the environment. To keep it playful and charming, cut the printer icon from the top left corner with scissors.





## Hello Hello Bello, Come in!

I am Captain Plastic, you can see me in this drawing. I grew up by a river, my dad was a fisherman. I always dreamed of becoming a great sailor, sailing the rivers and seas. Guess what, I did it! I sailed seven rivers and seven seas. And wherever I went, maps always helped me find my way. For thousands of years, there was no rubbish on the shore, only plants and animals. How beautiful it was, wasn't it? Now there are piles of rubbish on the river banks. According to the third law of riversavers: the river is vulnerable and needs protection. How true! I think everyone should do something to keep rivers clean. The rivers give us so much, it is only fitting that we should give something back. I understand from Professor Greenheart that you learnt at school that the where the river dumped plastic pollution. You know, like that bottle post washed ashore. These polluted places are like wounds for the river. I am asking you now to help heal the river, first by helping us to find the wounds in the landscape, the polluted places. We are looking for places where there are piles of waste, or riverine litter. Places where the river has deposited its excess load after floods: bottles and other river waste. Turn over my letter and you will see a map. I ask you to draw on it the polluted areas you have found. Is that clear? It's important that you don't pick up the rubbish on the beach now. We're not collecting anything yet, we're just scouting, mapping. It's a very important activity because we can only clean up the river if we know where the pollution is. If you do your job well, we will soon have a super waste map to start on. So good mapping, let's get on with the river clean-up!

Hello Hello Bello, Over! Captain Plastic

P.S.: Imagine, I was once making a waste map along the Nile when I ventured too close to the water and slipped on the muddy bank and fell into the water. It's good to know that the Nile is one of the longest rivers in the world and is home to crocodiles. Well, I got out as fast as I could before a crocodile bit me on the butt. There are no crocodiles in the river where you are, but watch out! The water can easily wash you away, or it might be very cold. So listen to me and don't venture too close to the water. Remember, when you're in the river, be careful! If you follow this, you will have a lot of great experiences. Oh, and before I forget, I hear you have a Riversavers' Diary. Thank you for including this letter as a reminder.





# 3.1 GROUP TASKS



#### 3.1.1.

Look carefully at the map on the back of the message! On the map you can identify the river section ahead of you and its main features. Before you start mapping, mark where you are on the map and discuss where and when you will meet at the end of the mapping. Have younger children move with the teacher. Older children, in groups of 3-4, can start mapping with teacher permission. Stay close together, within sight and hearing distance of each other. Do not touch the rubbish on the river bank. Use a ballpoint pen or waterproof marker to mark contaminated areas on the map. On a paper map, mark the nice spots (holes, old trees). If you have a smartphone and have been given guidelines, do your waste mapping using the <u>Trashout</u> app.

**TIP:** The mapping mobile phone should have a mobile internet subscription. Just because you have a smartphone doesn't mean you can't do the mapping on paper. Digital data can easily be lost, along with the phone and a new program.

## 3.1.2.

Get together and share your experiences. If you have been to the riverside in several groups, choose a spokesperson from among you to tell the others about your first litter mapping experience. Tell them if you saw any unusual creatures and report where and how many riverine litter dumps you found. Show each other the maps you have made and compare the data. Answer the questions below. How was your river trip? What interesting things did you see? Were there any hazards, and if so, how did you avoid getting into trouble? Why do you think it is not advisable to touch river litter lying on the banks with your bare hands? Why do you think riversavers call pollution maps as treasure maps?

# 3.2 INDIVIDUAL TASKS



# 3.2.1.

Check out this <u>picture</u> of the white stork! Then read this <u>description of the white stork</u>. Draw a map showing where the white stork spends the winter and how far it comes back each year. If you prefer to write rather than draw, write an essay about white storks, explaining why they return to the riverine forests each year.

# 3.2.2.

Don't forget the wildlife while you're mapping! If you see a beautiful bird or flower, take a note of it and make a drawing. Write an essay or diary entry about what it was like for you out on the river today.

TIP: Put the best of your creations in the Riversavers' Diary!



6. figure: White stork. Photo by Charles J. Sharp, CC BY-SA 4.0 <a href="https://creativecommons.org/licenses/by-sa/4.0">https://creativecommons.org/licenses/by-sa/4.0</a>, via Wikimedia Commons

# 3.3 ONLINE EXERCISES



#### 3.3.1.

Check out the latest episode of the 5 Countries I River project's educational film series!

Choose the subtitle that corresponds to your native language from the settings. When the subtitle appears, start playback! Discuss with each other what was interesting about the film. If something in the film caught your interest, search for it on the internet and show others what you found!

# 3.3.2.

Go to the <u>Clean Tisza Map</u>! See how many contaminated areas the riversavers have found on the stretch of river near you! Then find the same place on the <u>Arcanum</u> website, <u>which compares old maps with today's satellite maps</u>. See how the Tisza and other rivers were drawn before the regulations! Make drawings and discuss what has changed.

# 3.3.3.

If you have a smartphone, download the <u>Trashout</u> app. Depending on how many contaminated areas you have on the beach, add new points to the Trashout app with your smartphone, either together or separately. Take photos, short videos of your waste exploration trip mapping. If you find something interesting, make a report with some photos and upload it together on the <u>Clean Tisza</u> website!

# DETAILED GUIDELINES



#### Guidelines for a letter:

This session should be held on the banks of the river nearest to the schools. If you are lucky enough not to have river litter on the banks of this river, you should be happy! Talk to the children about how lucky you are to live next to such beautiful, clean river water. If your students are young, we suggest watching some videos of other polluted areas and rivers. If you can find litter (e.g. drink cans, soda and mineral water bottles, cigarette butts, bottles) lying around the river banks instead of river litter, you can map those too. Don't touch the litter yet! With older students, think about going on a slightly longer hike, perhaps scouring a longer stretch of river. If you can't do this, you could also look for more polluted areas on your own or with friends, in your spare time or by asking parents, or check the Clean Tisza Map or ask the experienced riversavers at the Plastic Cup for advice. You may have noticed that Captain Plastic's letter uses a simile, a kind of vocabulary, to help children understand pollution. He describes polluted places as wounds, injuries. And mapping in this context is nothing other than the exploration of wounds, of landscape wounds, and preparation for healing, for river rescue. With older children, it is also worth going over the fact that rivers act as biological filters, constantly purifying the water that flows into them. For example, 50 to 100 kilometres after a sewage spill, it is difficult to detect pollution, the river processes it or settles it. But with plastics it's a different story. They are filtered out and dumped at specific points. Exactly where, that's what we need to find out.

#### Guidelines for mapping:

Mapping is where every riversaver operation begins. Whenever you're planning a riverside activity, it's worth thinking and planning well in advance. Mapping will show how much help is needed to restore a place to a plastic-free state. We will find out when, where, how much and what kind of waste is found. Don't aim for a large-scale river cleanup with under-age children. Be cautious and discerning, and for 6-10 year olds we recommend only cleaning up very small areas and doing what we call river cleanups. With children in high school or middle school, you can think about a larger river cleanup action. If many children in your class have mobile phones, you could encourage them to download and use the Trashout app. If your children are younger, show them how you do litter mapping on your own phone! Avoid steep river banks, move together and wear brightly coloured clothing! Approach shallow water banks, sit down and enjoy the river. Plan with a realistic distance and think about the way back. Check the weather forecast before mapping. In windy weather, don't go under the riverside trees! Withered branches can break off in high winds and fall. Remember the main message of chapter two: safety first! A word of encouragement: we even tested the lessons and methods with the pre-school age group and they really enjoyed it.

# Equipment needed for mapping:

1.Smart phone/map (you may want to download and try the Trashout app and the map of the trip location at home, you may not have good mobile internet signal). 2.For longer trips, a powerbank to charge your phone. 3.Seasonal clothing (clothing should be brightly coloured, striking so you can see each other from a distance. Clothing should be strong, resistant to the thorns of floodplain vegetation. Rubber boots, hiking boots or shoes with thicker soles are recommended).



# DETAILED GUIDELINES, CONTINUED.

4. Backpack. 5. Food and drinks (take enough water and food with you, especially if you have to walk a long way). 6. Permit (you may need this if you are crossing a protected area or private land and want to prove that you are carrying out an environmental activity). 7. Camera or handycam. 8. pepper spray (in case there are many stray dogs or wild animals in the area). 9. compass. 10. tissues, toilet paper.

#### Guidelines for individual and online exercises:

These activities should be done in the classroom rather than outdoors. The white stork prefers wooded areas close to wetlands. You can read a little more about the species on Wikipedia. The advantage of an online encyclopaedia is that you can find and read the same article in several languages. This species is used as an example because it is also found along the Tisza and its wintering grounds are far away in Africa. Interesting fact: In 1909, a South African hunter captured a white stork ringed in Hungary. This was the first evidence that these birds could make such a long journey. The discovery was made by Ottó Herman and Jakab Schenk, and you can read more about it on the website of the Hungarian Ornithological Society.

#### Directions to Arcanum map:

If you look at old maps, you can see that the Tisza used to be much more winding. Cutting the bends and shortening the riverbed is called river regulation. The purpose of the intervention was to avoid flooding, and the floodplains that were freed were put under cultivation. According to current scientific knowledge, we now know that river regulation has not only brought benefits, but has also caused a lot of damage. Scientists believe that the rapid drainage and straightening of river beds is linked to the drying out and desertification of the lower reaches of the Tisza catchment. Arcanum's unique <u>synchronisation view</u> allows us to see past and present conditions side by side. Recognising the ecological importance of natural river basins, the European Union has launched river restoration programmes in several countries. The aim of these interventions is to restore as large an area as possible to its original, water-rich, natural state. If you're more interested in this topic, we recommend the WWF film "Whitewater Country" by Péter Kajner, or if you have more time for cinema, we heartily recommend the film "Once upon a time there was a whitewater country" by Balázs Szendőfi.

# 4. LET'S GET READY!



#### GENERAL INFORMATION

If you are here in the book, it means you have been to the river at least once. You've collected many experiences, made maps, and there are many drawings, notes and letters in the Riversavers' Diary. It's time to do something together for cleaner rivers after all the experiences, learning and information gathering. We propose to implement Chapter 4 in a classroom setting, indoors. The next chapter, Chapter 5, is about the first riversaver operation, and as it is a big thing, we dedicate this whole chapter to preparing for it. The children will learn, almost unnoticed, how to distinguish between different types of waste and what to do with them in the field, all embedded in an interesting story. Knowing your class, you decide which difficult task to take on. Be careful with small children, but be braver with larger ones, as explained in the next chapter. If you feel that your students are too young for a river cleanup, we suggest you skip ahead from Chapter 4 to Chapter 7, River Adoption. If your children are enthusiastic and skilful, then feel free to jump into the river cleanup. A little encouragement: with proper supervision, even kindergarteners can help clean rivers.

As you've come to expect, this chapter is based around a letter written to children by P.J. the PlasticpiRAT, a shipbuilder, inventor and handyman born on the Great Pacific Garbage Patch. If you want to work with your class as a group, we suggest you print more than one sheet of A4 this time. The first one should be P.J's letter. Print the second A4 page separately. If you are dividing your class into groups, we suggest that you print one copy of PJ's letter and several copies of the second page, so that each group has a copy of the second page. Once you have printed the first page of the message, you are kindly asked to tear it up. For small kids, tear the paper into a few larger pieces, if the children are big and smart, tear it into very small pieces. Scatter the pieces in one corner of the classroom. At the beginning of class, have the children find the scraps of paper, pick them up, then sit down at a table and try to write out the message. When they have successfully put the pieces together, they can glue them together with tape or cellux. Cellux is good because it is transparent, so you can read every little bit of the letter. To complete the activity, you will need the following:

- ✓ 1 A4 sheet of paper with the letter on it (torn)
- ✓ 1 A4 sheet of paper with the letter on it (not torn up, in case the children can't post the letter)
- $\checkmark$  1 to 5 A4 sheets printed with the waste symbols (the number depends on the number of groups in the class)
- ✓ sheets of coloured paper (ideally A4, yellow, green and black, but other colour combinations are possible)
- ✓ 1 pair of scissors (if you are working in several groups, you can use several pairs of scissors)
- ✓ 1 cellux roll

TIP: Start at the corners, it makes the puzzle easier if you don't want to bother with cellux and tape, use simple paper glue instead. Find a piece of cardboard or other stiffer paper, then glue the pieces of paper one by one onto it. If you're clever, you'll soon have the full message.

**ATTENTION:** On the next page will be the MESSAGE IN A BOTTLE. Print the message with the back cover, it will come in handy at the session! If you don't print the whole book, just the selected pages, you will save paper and costs, and you will also save the environment. To keep it playful and charming, cut the printer icon from the top left corner with scissors.







#### Hello little buddies!

A thousand apologies for causing you so much trouble, but I always chew everything. Unfortunately, this often happens to us rodents. My name is P.J., the PlasticpiRAT. I am a descendant of the oceanic rat, and an old friend of Captain Plastic. Snacking on paper is something of a primeval urge in the PlasticpiRATs, and because of this, very few records survive after us, which is why, of course, we are thought to be unable to read or write. But on the GPGP, or the Great Pacific Garbage Patch, where I was born, I learned to read and write very quickly. I know from books, for example, that most of the plastic floating in the oceans comes from the rivers that flow into the seas. Out of 10 pill bottles that float in the sea, 8 come from rivers. The Danube alone carries more than 4 tonnes of plastic into the sea every day. How strong this river is, isn't it, to take so much! I couldn't carry four tonnes every day.

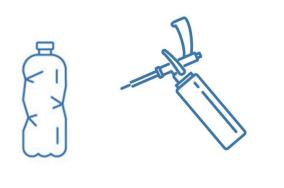
But I'll tell you the fourth rule of riversavers. The river is not only strong, it is old! They have been shaping the landscape since ancient times, since at least the age of the dinosaurs, and even longer. Yes! Cutting valleys, chopping rocks into small pebbles. Perhaps only the ocean is more powerful than rivers. Here in Oceania, everyone collects the plastic that ends up in the sea. And some people can even build boats out of plastic bottles - they're called plasticpiRATs. I am proud

to be one of the creatures that reuse plastic! We are smarter than many people who believe that plastic can only be used once. Say they drink from a pill bottle and throw it away. What a stupidity, what a waste! I heard from Captain Plastic that you are also cleaning up the rivers. But don't just collect the waste, make it reusable. If you agree, you will also sort the waste you collect. Now I will help you learn how. Oh, and before I forget! Thank you for gluing my letter together. It's typed because I really like gadgets. All kinds of gadgets that are electronic. I wrote this on one of those.

With friendship, your friend, P.J., the PlasticpiRAT

P.S.: I'll tell you why my name is P.J. one day, but until then. Please turn my letter around and kindly cut out the various little figures. Thank you. If something is not clear, ask your teacher. She is very clever and will tell you why this is necessary. Trust me :-)



























#### 4.1 GROUP TASKS



#### 4.1.1.

If the class is small, work together. If there are many of you, form separate groups - your teacher will help you with this. When you have done that, take the second page of P.J. the PlasticpiRAT's letter and look at it carefully. On the paper are simple icons and symbols. Take a pair of scissors and carefully cut across the paper until all the symbols are on separate pieces of paper. Then cut out bag-shaped pieces of coloured paper in at least three colours. Write "selective" on one of them. On the other, write "glass". On the third, "communal". When you are ready, listen to the teacher who will tell you what to do. The key is to have at last one piece of litter on each piece of paper. You will find among them glass bottles, plastic bottles, pieces of polystyrene, scrap metal. Even hazardous waste. All of these are carried away by the river. Your task is to group the riverine litter. Try to find out which waste belongs in which bag! And you'll also find out which waste you shouldn't touch. When you're ready, tell us how you sorted them!

TIP: If you need to form groups quickly, use the cap method, see the guidelines at the end of this chapter for more details.

If you managed to post and glue together P.J. the PlasticpiRAT's message, please include it in the Riversavers' Diary! Do the same with the drawings you made for your group project.

#### 4.1.2.

Form groups and together try to find answers to the following questions:

- a,) why bother sorting riverine litter? Why not throw everything in a bag and then throw it in the trashbin?
- b,) how, with what should you prepare for the upcoming riversaver operation? Colour your message with drawings and illustrations. Tell your thoughts to the others in a short, interesting way.

TIP: Set a time limit on how much children can talk. Try to keep what they say short and interesting. If necessary, make a sound signal, such as a whistle or a whistle, when the time is up.

#### 4.2 INDIVIDUAL TASKS



#### 4.2.1.

Imagine a river with a pebbled bank. If you look closely, you will see that each pebble is round. They were once rocks, and now each little piece is rounded. If you haven't seen round river pebbles before, go to this Wikipedia page and look at this picture of some round pebbles. Then check out this photo of a riverine litter under the sediment. Think about it, how did all these pill bottles get here, underground? What force moved them and what happens to them if no one cleans up the river! Write down your thoughts or make a drawing and say what you think in a short talk.



7. figure: Sedimented riverine litter accumulation close to the settlement of Zsurk, by the river Tisza. Photo by: Ágnes Kiss, Plastic Cup initiative.

#### 4.3 ONLINE EXERCISES



#### 4.3.1.

Check out the new episode of the 5 Countries I River project's educational film series! Choose the subtitle that corresponds to your native language from the settings. When the subtitle appears, start playback! Discuss with each other what was interesting about the film. If something in the film caught your interest, search for it on the internet and show others what you found!

#### 4.3.2.

Look at this picture and <u>read this description</u> of the sterlet on Wikipedia! If you have more time, watch this <u>video in English</u> or <u>Hungarian</u> about the sterlet. Make some drawings of this strange fish and write a few sentences about why you think it is so special. If you would rather write than draw, write a short essay about why these fish are in danger and how they can be helped. Let the others know what you think about the case of the sterlet fish!





8. figure: Young sterlet. Photo by Lubomir Hlasek, http://www.hlasek.com/foto/acipenser\_ruthenus\_hf5946.jpg

#### DETAILED GUIDELINES



Before we get too deep into the details, we would like to remind you again that to involve schools in river cleanup actions, extra care and preparation is needed. For kindergarten or primary school children, according to Plastic Cup's experience, river clean-up activities have been very successful with the use of waste picking tweezers. If you manage to get a few of these, children won't have to use gloves to pick up the waste, and the collection will be more interesting and playful for them. If you don't have tweezers, don't be discouraged! Clean up a short stretch of beach where there is no serious litter, or pick up some discarded cigarette butts or discarded soft drink bottles on the river bank instead of river litter.

#### Guidelines for group exercises:

If there are too many students to work in one group, split into separate teams. A tried and tested method for Plastic Cup workshop sessions is to form 'cap tribes'. We suggest that if you have well-established, cohesive and mutually supportive groups of friends in your class, let them form a team. Conversely, if you want to foster a sense of community in your class, we suggest you buy as many caps as there are children in your class, in as many colours as you want to form a group. For example, if you want to have 4 groups in a class of 20, buy 5-5-5-5 caps in different colours, put them in a hat/box and ask the children to draw one! Everyone will be placed in the group of whichever colour cap they drew.

For the first group exercise, we suggest that you supervise the cutting of the paper shapes. Ask the children to take care of their hands so that no injuries occur. From coloured sheets of paper, each team should cut out three pieces in the shape of a sack/bag, representing the real trashbags. The task is to place the symbols cut out from the second sheet of paper on the bag they think the riverine litter belongs in. For example, the symbol labelled glass should be placed on the bag with glass. Important! The cut-out symbols will include hazardous waste. For example, dead animals, hospital waste, medicines or chemicals. Emphasise repeatedly and firmly to children that they should not touch these and that they should always report them to adults. The correct answers for the first group exercise are: plastic and metal, but only "clean" plastic and metal, should be put in a separate bag. By clean we mean that there is no more than river sediment on the waste. It is important to note that oily plastic bottles and mud-filled beer cans are not recyclable, so they should be placed in the communal bag, not the selective bag. All glass, except broken glass, should go in the bag labelled glass, and should not be touched by children. Likewise, they should leave carrion, medical and hospital waste, chemicals in place. And polystyrene pieces, slippers, pieces of polyurethane foam and other small waste belong in the communal bag. Set aside the paper waste from the session, because other volumes of the Clean Tisza Textbook Series also gives tips on how to turn used, scribbled and cut-up pieces of paper into recycled paper.

#### Guidelines for individual tasks:

According to the fourth rule of riversavers, the river is old and strong, shaping the landscape since time immemorial. From the illustration of the first individual exercise, children can see what the riverbed looked like before the big regulations. In the lower, lowland stretches of the river, the Tisza has been winding, wild and much longer than it is today. It spread a lot of sediment and water over a landscape that was therefore teeming with life.



#### DETAILED GUIDELINES, CONTINUED.

If children compare the old riverbed with the current one, they will see that many bends have been cut to allow the water to flow quickly. So the water no longer deposits so much sediment, it runs faster, it "rushes". For the first exercise, it is useful to tell your students about the power of the river, how it moves tonnes of sediment and even drives the turbines of hydroelectric power stations, generating electricity. If your school is on the upper reaches of the river, simply show them a pebble and explain that it was carved by the river's current. The point is to get it through their heads: the river has been here for thousands of years and its great power is constantly shaping the landscape.

With the second individual task, we want to draw attention to the fact that the river, because of its enormous power, can also move a lot of pollution. But where the river slows down, plastic is deposited and then covered by sediment. This is how the river dumps you see in the illustration are formed. It is worth pointing out to the students that without intervention, this plastic will remain in place, fragment, break up and further pollute the habitat.

#### Guidelines for online exercises:

The sterlet was chosen as the species featured because of its interesting lifestyle and appearance. At first glance, it looks a bit like a shark, which is not surprising, as the sterlet and the shark are related - they are all cartilaginous fish. There's no need to be scared, the sterlet is a small fish and eats small animals that live in the sediment. However, they are an endangered species whose migration is blocked by hydroelectric dams and, as the film shows, they are very disturbed by the noise of the many motorboats. Try to make the students understand the importance of protected areas for the peaceful coexistence of man and the river, and the need to preserve as many stretches of the river's original natural bed and the sterlet in it as possible.

## 5. LET'S GET INTO ACTION!



#### GENERAL INFORMATION

The class arrived at the riverside. Your backpacks have everything you need for a good trip. You have the water in front of you and the treasure map you made together. Your first task is to find a bag Peter and Lisa have sent you. All we can tell you is that it's close to the rendezvous point! When you find the bag, open it! Inside you will find lots of gloves, bags and a message. Read the message! The adventure continues, the riversaving begins!

This is a brief summary of what this outdoor activity is all about. The most exciting and most challenging part of riversaver work is the river cleanup itself. If you're successful, you'll end up with bags of rubbish lining the banks. Think about what happens to these bags. Contact your local waste management company or municipality in good time to arrange collection. Make them aware that you collect not only mixed communal waste but also selective waste. In the case of larger riverine litter accumulations, you need to plan your collection carefully, especially with regard to potential hazards (e.g. busy roads, power lines, steep river banks). The floodplain is the area between the river bank and the dam. It is advisable to ask the forestry, water department or national park before the hike whether it is allowed to move in the area (e.g. during the breeding season, do not move around eagle nests, so as not to disturb the breeding). Days in advance, inform children and parents of the planned day of the activity. If you want to take photos of the children during the riversaving action, ask the parents' permission. Children should bring layered clothing appropriate for the weather and the usual snacks and drinks for outings. Make sure everyone has a refillable plastic bottle, canteen or mug, or a refillable cup. Ask if anyone in the class is allergic to wasp stings. Check the weather forecast. In high winds, rain, or after a thunderstorm, avoid going outdoors. In open woods, watch out for falling branches and other hazards (such as steep banks). This session also starts with a leaf, but as you will see, you will need more supplies than usual to complete it. If you have the opportunity, enlist help, be as many chaperones as possible. If possible, invite a teacher, as the presence of parents can be stressful for children. If your school can't cover the cost of buying supplies, ask parents for help or a local sponsor might help! You will need the following supplies to run the session:

- $\checkmark$  1 treasure map, previously prepared and pinned in the Riversavers' Diary
- ✓ 1 printed letter, two pages (first page Peter and Lisa's message, second page the flow chart)
- ✓ Garbage bags in 3 colours (the specific quantity depends on the number of children and the amount of waste, but at least 15-20 bags per colour, it is advisable to choose strong, good quality bags)
- ✓ Protective gloves for the number of participants in children's and adult sizes (if possible, choose tear-resistant, dipped work gloves)
- ✓ Waste collection tweezers (recommended, but not compulsory)
- ✓ Handwashing fresh water in a jug and hand sanitising liquid
- ✓ Sweets, snacks
- ✓ Drinking water
- ✓ Seasonal hiking gear and backpack
- ✓ Mosquito repellent
- ✓ First aid kit, toilet paper

**ATTENTION:** On the next page will be the MESSAGE IN A BOTTLE. Print the message with the back cover, it will come in handy at the session! If you don't print the whole book, just the selected pages, you will save paper and costs, and you will also save the environment. To keep it playful and charming, cut the printer icon from the top left corner with scissors.







#### Hello!

This message is written by us again, Peter and Lisa· It's great to see how much has happened to you since you found our first bottle post· Professor Greenheart tells us that you now have your own treasure map and are off to save the river· This is very exciting! But before you go, we have an important message· You're going into nature, into the realm of trees, bushes, plants and animals· Liza recently jumped a whole herd of deer, we saw them up close as they ran away· They were very beautiful, but you could tell they were scared of us· Since then, we've always been talking loudly or singing to each other - so the animals know we're coming from far away. Be careful, look after yourselves and look after the wildlife! If possible, don't step on flowers, if you see a bird's nest, don't disturb it· The fifth rule of riversavers is that the river and people's lives are closely linked· It's time to thank the river for all the good it does! Did you know that all those plastic bottles on the banks are sparkling and crackling? It bothers many animals, some birds even move away because of it· Remember, every bit of plastic you remove from the

environment is a relief for the river and the animals and plants that live there. When cleaning up the river, always stay on the bank. Only go near the water when adults allow you to, if you are within sight. Move around together, don't get too close to the river or you could slip in. If you see litter floating in the water, leave it there, as you will need a life jacket and a boat to clean the river. I remember once Pete went to pee while cleaning the river, but he didn't tell me and I was very scared. If you have any questions, just ask the teacher, he will help you. Oh, and one more thing! If you have a break and eat something, remember to take off your gloves and wash your hands thoroughly before eating. Be very good and listen to the teacher, he is the captain here and now. To the rescue!

#### Lisa and Pete

**P.S.:** Do not open the sealed bottles found on the river bank, do not spill the liquid inside. In case you have forgotten which riverine litter item should be put in which bag, we have prepared a drawing for you, which you will find on the back of this letter.









#### 5.1 GROUP TASKS



#### 5.1.1.

Read the letter from Lisa and Peter. After reading the message together, sort the three different coloured bin bags into three groups. Then look carefully at the second page of the bottle post. Discuss together which waste belongs in which bag and why! Also discuss in detail why you should not touch the waste outside the bags! When you have finished, report back to the teacher.

#### 5.1.2.

If your class is large, form groups with the teacher's guidance. Everyone should wear a good pair of gloves that fit their hands. Then study the Treasure Map. Discuss who is going where. Mark on the map where you will meet and where you will take your full bags. Discuss when and where to meet, where to pee, and when the next lunch/lunch/sun break will be. Put on your bags and gloves and get to work cleaning the river! Talk, sing and stay close to each other while you clean. It's very important not to throw bottles or heavy waste, put them carefully in the rubbish bags. Don't fill the bags to bursting point, leave enough space in them to tie a nice knot in the mouth of the bag. Leave the full bags to the adults. Up for riversaving!

**TIP:** As a teacher, if you have some extra time before the session, collect some river litter on the beach and put it next to the bags. Use these as visual aids in the precollection meeting. It's quite another to demonstrate selective waste collection with concrete examples. Include contaminated waste in the samples (e.g. a bottle of cooking oil or a can of motor oil). Be sure to put them in a black bag! Put all selective waste (clean plastic and metal) in the separate bag, and treat glass separately. Move the glass bags very carefully so that the shards don't cut someone.

#### 5.2 INDIVIDUAL TASKS



#### 5.2.1.

Observe the wildlife around you as you walk by the river. Take a closer look at one plant and one animal species. Make a drawing of the two creatures you have chosen. Tell the others why you chose these particular creatures.

#### 5.2.2.

If you find a plastic bottle from a far away country among the riverine litter items, roll the cap off and put it away as a souvenir. Later, when you do a Plastic Workshop with your teacher, it will be important. Only put away clean caps and pack them carefully in a separate bag. Try to guess what language the label is in!

#### 5.2.3.

Do you have a smartphone or notebook? Take a drawing or photo of the most interesting places and waste. Try to guess where the object came from.

#### 5.3 ONLINE EXERCISES



#### 5.3.1.

Check out the latest episode of the 5 Countries I River project's educational film series!

Choose the subtitle that corresponds to your native language from the settings. When the subtitle appears, start playback! Discuss with each other what was interesting about the film. If something in the film caught your interest, search for it on the internet and show others what you found!

#### 5.3.2.

Read the saga about the origin of the Tisza on this website. You will see that the website is in Hungarian, but if you don't know Hungarian, don't despair! Select the translation plug-in in your browser or copy the text into Google Translate! If you like the origin story, draw the story! If you don't like it, invent another one and illustrate it with a drawing! If you know a poem or a song about the Tisza, tell us, sing it.

#### 5.3.3.

Take photos and short video clips of your work while you're cleaning up the river. If any of you would like to tell the camera what happened that day, ask them to do so. Capture the full bags and the river clean-up team in photos and short videos. Post the pictures on social media, but only if the teacher, the students in the picture and their parents have agreed! Don't just use the camera on your smartphone! Use the <u>Trashout</u> app to mark when you have successfully cleaned up an area.

**TIP:** Good photos and videos can inspire others to clean up their rivers. Upload photos and texts of your first river cleanup action to the <u>Clean Tisza website</u>, provided, of course, that you have the consent of the children and their parents who are featured in the photos.

#### DETAILED GUIDELINES



Questionnaire research has shown that participatory environmental education programmes not only have benefits, but can also cause harm. Students report that some outdoor activities involve unnecessary stress, shouting and discipline. If you find that this is the only way you can manage the session, we suggest postponing the river cleanup until later. We suggest the same if the children are cooperative but you are overburdened. A river cleanup is a good and lasting experience if everyone is happy to participate and you can enjoy the pleasures of nature beyond the common action. Remember, children's development, peace of mind and fun are just as important as a plastic-free riverbank! Another general rule is to have a charged mobile phone with you, so you can keep in touch with the others and take photos. If you have wasp sting allergy sufferers in your group, consult a doctor about what to do in case of a sting. For larger river cleanups, it's a good idea to have a first aid kit, sunscreen and mosquito repellent to hand. Always have extra gloves and bags with you, and also set up a deposit of these in a visible place. For ages 6-10, move together or have an adult in each group. If you prefer, older students can go in separate groups. If you split the class into several groups, have mobile phones in the separate moving groups, so everyone is always available. Be specific about the time and place of the meeting, and make sure you have water for washing hands and hand sanitiser if necessary. If you have managed to get garbage tweezers, practice using them with the children.

#### Guidelines for a group exercise:

We suggest that if you want to give the little ones a special treat, pack everything in a bag in advance and hide it carefully as if Peter and Lisa had left it behind. That way you can keep the adventurous treasure-hunting atmosphere alive. With a class of older children, this may not be necessary, but a little playfulness doesn't hurt either. The pollution map you made in chapter three (Make a Treasure Map) is the basis of the activity, so you'll know where the riverine litter is. It is important to emphasise that you should only deal with river waste transported by the river, and that the removal of illegally dumped river waste by the public is the responsibility of another organisation. To give you a concrete example, cleaning up a riverside homeless shack is not the job of the children, you should concentrate on the river waste that is transported, washed and dumped by the river.

After you have read the letter, discuss what to do in detail. Ask who has questions! Does anyone have a problem, is someone afraid of something? In our experience, there are more and more children today who have never been on a hike in the great outdoors. Move with the younger ones in a group, and with the older ones you can split them into groups. Discuss when and where to meet, where to pee, and when the next lunch/lunch/sun break will be. Put on your bags and gloves and start cleaning the river! Talk while you pick, stay close to each other. It's very important not to throw bottles or heavy waste, put them carefully in the rubbish bags. When a bag is only nearly full, tie it in a loose knot. Heavy bags should not be carried by children. Place the full bags together at the collection point where the waste management company will collect them from you. Take photos and videos to remember!



#### DETAILED GUIDELINES, CONTINUED.

#### Guidelines for individual tasks:

The first exercise reinforces the fifth law of riversavers, that the river and people's lives are closely linked. The origin story of the Tisza is hundreds of years old and shows that people have long been concerned about the river's origins. The second exercise draws children's attention to the living world. In this way, we try to prevent waste collection from becoming an end in itself, an inward-looking activity to be done. Always try to make children aware that plastics make life difficult for plants and animals in nature, and ultimately for humans. The third task is a kind of preparation for the Plastic Workshop sessions. In case you are also interested in the other volumes of the Clean Tisza Textbook Series, it is also worth saving the nicer caps because you will be able to give them a new life later.

#### Guidelines for an online exercise:

There is usually less time to work digitally while the river is being rescued. Still, it's worth paying attention, because you'll be looking at these pictures, videos and posts later. It might be a good idea to ask some students to document what happened. Choose a student who has a smartphone and is willing and able to use it. It is important that the student taking the photo or video does not abuse his or her position, does not disturb the children at work, but documents in a kind and polite way. With older children, open the Trashout app and mark the area to be cleaned up. Upload the best of the photos you take to the Clean Tisza website, subject to the aforementioned privacy and personal rights rules.

# 6. WHAT TO DO WITH THE WASTE?



#### GENERAL INFORMATION

Everyone is back from the river cleanup action, the bags full of riverine litter are lined up in front of you. You are standing in a circle around a foil-covered area, empty buckets and empty bags at arm's length. The teacher takes out a sack full of river waste. She unties the knot on the bag and pours the contents of the bag onto the sorting table or sorting sheet. Then one of the sharp-eyed students notices a message in one of the bottles. You take it out and read it carefully. Because the adventure continues! Up for sorting! That's one way to sum up what today's session is all about. In Chapter 6 of the Riversavers' Handbook, we show how to make carefully collected riverine litter suitable for reuse. During the session, river waste will be further sorted, flattened and prepared for transport. Please note that careful sorting of river waste is not recommended for the lower age group (6-10 years old), and for older children and adults only under adult supervision. If your children are keen to get involved, give them a well-defined and safe task, such as untying knots in the bags, sorting the bags, taking pictures. If you judge the readiness of your class that it's not a good idea to be confronted with the contents of the bags again, we suggest you arrange for the removal of the waste bags and skip to the next chapter, Chapter 7. But for those of you who want to become real riversavers, we encourage you to sort. Sorting together, exchanging opinions, debating and making decisions together is a great team-building activity!

River waste sorting and selection is a great outdoor activity. If you have the opportunity, do it as soon as possible after the river cleanup. If you can't deal with full bags for a few days, make sure the owner of the area knows about the temporary storage and put information tags on the bags about the expected time of removal. Nobody likes to look at full bin bags for too long. Be sure to make several appointments with the professionals responsible for the removal of the waste (waste management company) so that no one is unpleasantly surprised and the work doesn't seem to have been in vain.

Days before the session, inform children and parents of the date and exact location. Children should bring layered clothing appropriate for the weather, a worn, dirty top for sorting, and the usual snacks and drinks for outings. Make sure everyone has a refillable plastic bottle, canteen or mug, or a reusable cup. Ask if anyone in the class is allergic to wasp stings. If you want to take photos of the children, ask the parents' permission to do so. If the weather is bad, cancel the event. If the sun is shining, provide adequate shade. Nothing is more natural than that this session also starts with a letter. With a class of younger children, it is particularly important to hide Professor Greenheart's printed message in one of the bottles beforehand. This is how the magic of the treasure hunt is maintained. With older pupils this is not necessarily necessary, but in our experience everyone enjoys a bit of adventure. If you have the opportunity, get some help, and get as many people as possible to help you sort them out. If possible, invite a teacher, as the presence of parents can be stressful for children. The list of props is almost identical to the previous session. If your school cannot cover the cost of buying the supplies, ask parents or search for a local sponsor!



#### GENERAL INFORMATION, CONTINUED.

You will need the following supplies to complete the session:

- ✓ 1 printed letter, two pages (Professor Greenheart's letter on the first page, flow chart on the second page);
- ✓ 1 dry plastic bottle in which to place the messages;
- ✓ Garbage bags in 3 colours (the specific quantity depends on the number of children and the amount of waste, but at least 15-20 bags per colour, it is advisable to choose strong, good quality bags);
- ✓ Protective gloves in children's and adults' sizes (if possible, choose tear-resistant, dipped work gloves QR);
- ✓ Safety goggles (to protect against flying dust and possible splashes of liquid) for those involved in sorting;
- ✓ For dry, dusty weather, a mouth mask (the COVID epidemic mouth mask is perfect);
- ✓ 1 large piece of strong foil, about 10 square meters (this should be spread out at the sorting site so that there is not much dirt left behind);
- ✓ 4-5 buckets or sealable plastic jerry cans (used detergent jerry cans will also do);
- ✓ Handwashing fresh water in a jug and hand sanitizer;
- ✓ Sweets, snacks;
- ✓ Drinking water;
- ✓ Mosquito repellent;
- ✓ First aid kit, tissues, toilet paper.

**ATTENTION:** On the next page will be the MESSAGE IN A BOTTLE. Print the message with the back cover, it will come in handy at the session! If you don't print the whole book, just the selected pages, you will save paper and costs, and you will also save the environment. To keep it playful and charming, cut the printer icon from the top left corner with scissors.







#### Dear Children!

Here is Professor Greenheart, this is my second letter to you. I teach at the school where Peter and Lisa go, and I know from them that you have managed to clean up a long stretch of the riverbank. Congratulations, you are doing a great job, it is wonderful! You have done more for a clean environment than most adults. But the adventure is not over! A real riversaver not only protects the river, but also the beautiful clean soil and the land. That's why it's important that all the waste we collect doesn't go straight to landfill. Captain Plastic and P.J. the plasticpiRAT showed us how to sort river waste so that most of its valuable, treasure-worthy parts can be recycled, i.e. made into something again. And whoever reuses this valuable waste does a lot for the environment!

The Sixth Law of Riversavers is that the river shapes the weather. Have you suffered from the summer heat? Have you ever seen flowers withered, fields dried up? Rivers bring water and cooling life to hot places, saving us from desertification. That's why we need riversavers like you. The next task: re-sorting river waste. It takes great courage to touch the waste collected from the riverbank again. The question is, of course, why is this necessary? Especially because you have already cleverly collected the waste in separate bags. It is necessary because many of the plastic bottles still have some liquid in them, and almost all of them have caps on them, so they are full of air and take up a lot of space during transport. These are the problems we will now solve together. With the help of clever and clever adults, we will unscrew the caps from the bottles. We pour the water and soft drinks out of the bottles, then we squeeze them. The prepared bottles are bagged and when the bag is full, a knot is tied. It is important that if any of the bottles contain oil, paint or chemicals, keep them separate and do not spill them. Be careful not to spill any liquids in bottles on each other or on the ground, and always wear protective equipment in all circumstances. And wash your hands thoroughly before eating, okay? So: to the river rescue!

I wish you all the best of luck, Professor Greenheart

P.S.: To make sorting easier, I have prepared a flowchart with Lisa and Pete for you. You can see it on the other side of my letter.



#### RIVER CLEANUP -> SELECTION -> COMPRESS

METAL PE&PP GLASS PET BOTTLE











#### 6.1 GROUP TASKS

#### 6.1.1.

Surround the sorting area! Spread out the foil! Wear work clothes that you don't regret, maybe improvise a small apron from garbage bags on your belly to protect your clothes from dust and dirt! The first bag full of rubbish will be emptied by your teacher. Be careful not to let anything from the underlay go into the environment. Look for the message in the bag of rubbish, read it out loud and discuss its contents.

Turn the letter over, look at the flow chart. If the sun is shining, find some shade to work in, you'll be in a much better mood. If you have read Professor Greenheart's letter and have any questions, ask them, talk it through. Decide who will do what. Have someone among you to sort the glass, have a separate person responsible for plastic, metal and municipal waste. There could be a separate task for crushing the plastic bottles that have been unpacked and emptied. It is also very important to have someone who will always give you a new bag when one is full of waste. Once you've allocated your roles, it's time to sort!

#### 6.1.2.

Stand around the sorting area again! This time, you should be wearing gloves, a mouth mask and goggles. The bottle collector will take the bottles, unroll the caps, put the metal caps in the selective bag and the bottles in the glass bag, but don't throw it away as it will break. If the bottle contains harmless liquid (most often water), pour it into the prepared containers. If there is any suspicious liquid in the bottle, ask an adult to help you, who will place the bottle in the black communal bag or separate it if necessary (hazardous waste).

The person responsible for plastic bottles, unwinds the caps and flattens the bottles by hand or by stamping it flat. Then place both the cap and the flattened bottle in the recycling bag. If the bottle contains a non-hazardous liquid (most often water or drink residue), pour it into the prepared containers. If there is a suspicious, oily liquid or chemical in the bottle, ask an adult to help you place the bottle in the black communal bag or separate it if necessary (hazardous waste).



#### GROUP TASKS, CONTINUED.

#### 6.1.2.

The metal collector collects metal cans (e.g. aluminium soda cans, cans) and places them in the recycling bag. The person responsible for the municipal waste collects all other waste and puts it in black bags.

It's best if an adult does this job, because they can also judge if a dirtier waste could be dangerous (e.g. chemicals or medicine residue). Look after each other while you work, don't throw waste at each other, don't spill anything on each other. If work gets a bit boring, sing a song and take a break every half hour. Make sure you wash your hands thoroughly before eating!

TIP: If there are more of you than can stand around the sorting area, arrange a shift change. Half-hour shifts allow groups to rotate. This gives you time to relax and enjoy the river.

**TIP:** For empty plastic bottles, just twist the cap off a little and then step on it. It will still be flat and you don't have to bother with the caps. The flat bottles can then go into the appropriate recycling bag.



#### 6.2 INDIVIDUAL TASKS

#### 6.2.1.

According to the sixth rule of the riversavers, the river shapes the weather. Think about the impact the river has on its environment. If you can, write examples of when the river is alive. To help you, look at this picture taken in Csongrád, on the banks of the Tisza River at the mouth of the Körös. Why do you think there are so many people on the banks of the river?

#### 6.2.2.

Read this <u>Wikipedia article</u> about the black poplar tree. Look at <u>this picture</u> of this giant black poplar tree. Think about why this tree could grow so big. Describe in a few sentences why poplars only grow by the river and why we don't find them on the top of a mountain? If you are interested in big trees, check out this website about the <u>biggest trees</u> in Hungary!

#### 6.2.3.

Do you have a smartphone or notebook? Take a drawing or photo of the most interesting waste you come across while sorting. Try to guess where the item came from



 figure: The bank of the Tisza at Csongrád, at the Körös estuary. Photo by Csongrád Television, source.



10. figure: Giant black poplar by the Danube in Gemence. Photo by György Pósfai, www.dendromania.hu

#### 6.3 ONLINE EXERCISES



#### 6.3.1.

Check out the latest episode of the 5 Countries I River project's educational film series!

Choose the subtitle that corresponds to your native language from the settings. When the subtitle appears, start playback! Discuss with each other what was interesting about the film. If something in the film caught your interest, search for it on the internet and show others what you found!

#### 6.3.2.

Take photos and short video clips of your work during the river cleanup and waste sorting. If any of you would like to tell a story to the camera, ask them to tell you what happened that day. Capture the full bags and the river cleanup team in photos and short videos. Post the pictures on social media, but only if the teacher, the students in the picture and their parents have agreed!

#### 6.3.3.

Before waste collection, appoint someone to monitor the amount of waste collected. It's easiest to count the bags, but you can get a really accurate result if you have a scale with you. Weigh your bags and add up how many kilograms of plastic, glass, metal and municipal waste you have collected. Share your results on social media and upload them to the <u>Clean Tisza</u> website!

TIP: Good photos and videos can inspire others to clean up their rivers. Upload photos and texts of your first river rescue action to the <u>Clean Tisza website</u>, provided, of course, that you have the consent of the children and their parents who are featured in the photos.

#### DETAILED GUIDELINES



#### Guidelines for the group exercise:

At the heart of the selection work is the underlaying plastic foil or sheet, which ensures that after the action, we are not left with a lot of small microplastics and other waste behind. If a suitable sorting surface is available, such as an outdoor table, it is worth covering it with this protective layer. After a well-done sorting operation, the bags are in three separate piles. One of the piles consists of bags containing only metal and plastic, named as "selective waste". The second contains the glass bags. The third pile contains bags of communal waste prone for deposition in a landfill. In a good case, the bags are separated by colour. In the Plastic Cup exercise, yellow bags were used for selective waste, green for glass and black for communal waste. In special cases, there is also a hazardous waste pile, which must be separated from the others and marked with a distinctive sign. Pour the non-hazardous liquid (water, leftover drinks) into the sewer system. Liquids of suspect composition (paint, chemicals, oil) should be poured into well-sealed cans and placed with the hazardous waste. It is very important that the waste is collected from us in good time by the professional of the company responsible for its removal. We must have written confirmation of the receipt, either on paper or by email! A few days after sorting, it is worth visiting the site to check that the bags have been removed in full. Take your class and check the area together to see if there is any litter left behind.

Take regular breaks during the selection process to give the children time to rest. We recommend fifteen-minute sessions with younger children and half-hour "shifts" with older children. If possible, organise two teams who can take turns. Make sure you have enough clean water for drinking and washing hands. Before eating, make sure all children have washed properly. Put the foil used for sorting, if not oily, in a separate bag. If the foil is oily, it should go with the communal waste. Of the empty bags from the sorting process, clean bags in good condition should be taken to a future river cleanup. Dirty, torn, oily bags should go into the communal bag. Sunglasses are a good substitute for goggles on sunny days! After the action, put used but good condition gloves in a clean bag - in the washing machine these gloves will be usable again! Torn, oily or dirty gloves should be thrown away with the municipal waste.

**Important**: In case of injury, disinfect the wound immediately and take the child to the doctor.



#### DETAILED GUIDELINES, CONTINUED.

#### Guidelines for an individual task:

Chapter 6 focuses on practical, outdoor activities, so less emphasis is placed on independent work. The first exercise draws attention to the fact that near rivers the weather is cooler, the lush vegetation provides shade and, in lucky places, swimming is allowed. The river can thus provide a quick refreshment for those suffering from the summer heat. Of all the creatures along the river, attention is now turning to a giant species of plant, the poplar tree, which absorbs a lot of water and can therefore grow very fast and very large. These trees are also in the majority of the largest trees on the Dendromania.hu website. Many species of animals find shelter in their branches and burrows, so they are very important from an ecological point of view.

#### Guidelines for online exercises:

There is usually less time for digital work during the sorting process. Still, it's worth paying attention to it, because you'll be looking at these pictures, videos and posts later. It might be a good idea to ask some students to document what they have done. Choose a student who has a smartphone and is willing and able to use it. It is important that the student taking the photo or video does not abuse his or her position, does not disturb the children at work, but documents in a kind and polite way. If you have the necessary consent from the children and their parents, you can upload the best photos and the quantified results of the river cleanup action on the Clean Tisza website!

### 7. TAKE CARE!





There are so many different ways to arrive here, at chapter seven of the Riversavers' Handbook, in so many different countries and groups. Some people, out of curiosity, have picked up the book here. Others skipped the river cleaning or sorting out out of caution, or out of consideration for small children. But there are surely others who have fought their way through the ordeal of becoming a riversaver, and all the previous chapters, with determination and perseverance. However you got here, you are welcome to join us for a very important session. The topic of our chapter is river adoption, which we heartily recommend to all, regardless of age or distance from the river. But what exactly is it about?

As you may recall from the introduction, teachers from the Erasmus+ 5 Countries 1 River programme have developed several methods to clean up rivers. In the framework of river adoption, they have selected a short stretch of river bank in each Tisza country. Some teachers selected a few metres along the banks of the Tisza, others selected a small stretch of riverbank along a tributary such as the Bodrog or the Szamos. Several criteria played a role in the selection. Some schools have chosen a nearby, easily accessible bank, which can be an advantage especially for smaller children. But there are also schools that have adopted a stretch of beach that they have previously cleaned up as part of the river cleanup. Regardless of which beach you choose, the task is the same. Together with the children, maintain and keep the river banks plastic-free. To show the next generation that there is hope for cleaning up the river. To show that plastic washed ashore is not a natural part of the landscape. The best way to do this is to regularly visit, protect and care for your adopted riverbank, while remembering to enjoy the beauty of the riverbank.

As you're used to, this session starts with another letter. Once again, Captain Plastic sends a message to the children. Print out the letter and its back page, and the enclosed Morse code chart. Seal the letter and the back of the letter in a plastic bottle and hide it in the classroom bin. Since the captain likes mysteries, he leaves a message on the board in Morse code, a language known among sailors. If you like this game, write the word "trashbin" on the blackboard in Morse code. Then hand out the Morse code chart to the children and let them work out together what the dots and lines on the chart mean. If you like, you can listen to the text of the word "trashbin" in the morse code message at this link. You will need the following supplies to complete this activity.

- ✓ 1 printed Morse code decoding table (if you want to make the session more exciting with a puzzle);
- ✓ 1 printed bottle post message (1 bottle of whistle to go with it);
- ✓ 1 printed letter back page (with the template of the river adoption sign);
- $\checkmark$  1 wooden pole or tool handle that can be driven into the ground;
- ✓ 1 wooden board;
- ✓ 1 waterproof document pouch;
- $\checkmark$  nail and hammer, or rope (see the board fitting instructions below, in the Directions section).

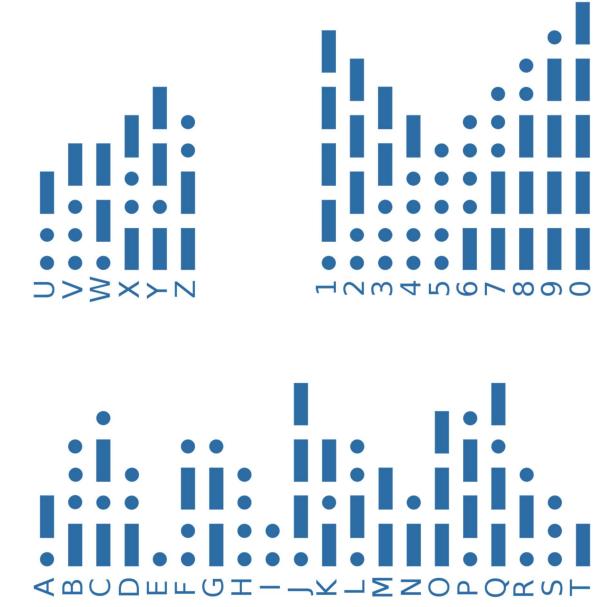
**ATTENTION:** On the next page will be the MESSAGE IN A BOTTLE. Print the message with the back cover, it will come in handy at the session! If you don't print the whole book, just the selected pages, you will save paper and costs, and you will also save the environment. To keep it playful and charming, cut the printer icon from the top left corner with scissors.





# International Morse Code

- The length of a dot is one unit. A dash is three units.
- The length of a dot is one unit.
   A dash is three units.
   The space between parts of the same letter is one unit.
   The space between letters is three units.
   The space between words is seven units.





#### Hello Hello Bello, Come in!

This is Captain Plastic again! Can everyone hear me? In the drawing you can see me on my favourite riverbank, relaxing in my hammock. If you're reading this, you've cracked the Morse code! Because not everything that ends up in the trash can or the river is trash! I've heard the news about you, I know what a good job you've done on the river. You may not even know what a big deal it is. To fix something that someone or someone else has messed up. You fixed it, you saved the river. The seventh rule of river savers is that the river is not a commodity. We don't own the water, we have received it from our ancestors for a time, we use it because we need it and we pass it on to our descendants. Indeed, the water that is in our bodies has been in the bodies of other living beings! It was probably even in the body of a dinosaur millions of years ago. And that's not all. Those drops of water in a deliciously cold glass of fresh water have all come a long way. In many rivers, in many clouds, in many rains, there have been those drops of water that we drink and



that we pee on or sweat out. That's how it is, that's how we are part of the great cycle, since time immemorial.

Water is life, so it should not be polluted. I'm old enough to remember what the river was like without plastic. But you are children of the modern age. And because of careless adults, you were born into a world where plastic is everywhere. Many children, unfortunately, believe that the riverbank is a place for litter, that life is a place for plastic, that it is okay to have plastic bottles floating in the water. But not you! You took action, cleaned up the riverbank and gave hope back. The question now is: what next? I have an idea, I'll tell you about it, in case you like it. Look for a small stretch of beach. A very small stretch along the river, preferably one that you particularly like for some reason. Then adopt it. Have a little part of the riverbank that you care about, that you come back to, where there is no pollution, where everyone has fun, where you can do something other than pick up litter. A place where people, animals, plants live together in peace, happiness, cleanliness, without the discarded plastics. If you like the idea, turn the paper over and get to work!

#### Hello hello bello! Captain Plastic

P.S. I adopted the riverbank where I caught my first Common Bleak from the water when I was a little boy. It was one of the best days of my life. It was at least as much fun as the first time I freed my first sperm whale from a tangled fishing net in the Southern Ocean. What is a Bleak? Well, it's a tiny little fish, just listen to your teacher and you'll soon find out exactly what it is.







THIS BANK OF THE RIVER HAS BEEN ADOPTED.

WE'VE CLEANED IT OF ALL POLLUTION

AND ARE DOING OUR BEST TO KEEP IT THAT WAY.

ISN'T IT BEAUTIFUL?

WANT TO DO MORE FOR OUR RIVERS?

JOIN RIVER SAVERS AND ADOPT A PIECE OF RIVERBANK!

THANK YOU IN THE NAME OF TISZA



#PLASTIC CUP #5COUNTRY1RIVER #5IN1









#### 7.1 GROUP TASKS

#### 7.1.1.

Read the text of the bottle post together. Discuss why the captain's excuse for a little fish as a boy might have been more fun than an encounter with the large whale? Then take a close look at the second page of Captain Plastic's letter. You will see a river adoption sign. What do you like about the sign and what don't you like? For example, this board has space for your school and class name, but it doesn't have room for a custom drawing or photo. Design your own river adoption boards! Discuss what the river adoption sign means and who it is for. Find out which stretch of river near you you would adopt and why. If you disagree, discuss it. Argue intelligently, talk to each other and write your ideas down on a piece of paper! When you are ready, tell your teacher.

#### 7.1.2.

Once you've chosen a suitable place, organise a river adoption ceremony. Invite parents and friends. Make a nice adoption plaque together in class! Make the text personal! Work on the board together. When you are ready, check the chosen riverbank again. If there is again a lot of litter in the area, clean up the bank in advance (see chapters 5 and 6). If there is not much litter, clean the beach with your guests! Finally, ceremonially place a plaque on the river adoption site and take photos!

**TIP:** The most beautiful and festive moment of the riversaver sessions is the River Adoption. Take photos and ask everyone if they have any objections to posting them. If everyone agrees, upload the photos to social media and post them on the <u>Clean River</u> website! This way, others will be informed about the good news and maybe they will get actively involved in river protection.

#### 7.2 INDIVIDUAL TASKS



#### 7.2.1.

Think about how you could make your adopted riverbank even more beautiful and interesting. What else could be done there regularly? How could it be an even better experience for a visitor. Don't forget the creatures that live there! What could be done to please them? Summarise your thoughts in a few sentences or draw some pictures.

#### 7.2.2.

Look at <u>this picture of</u> the Common Bleak, read the <u>description on</u> <u>Wikipedia</u>. Write a few sentences about why this fish might be important to the life of the river. If you don't feel like writing, draw or paint!

**TIP**: Include your successful creations in the Riversavers' Diary!



# 7.3 ONLINE EXERCISES



#### 7.3.1.

Check out the latest eposide of the 5 Countries I River project's educational film series!

Choose the subtitle that corresponds to your native language from the settings. When the subtitle appears, start playback! Discuss with each other what was interesting about the film. If something in the film caught your interest, search for it on the internet and show others what you found!

### 7.3.2.

Search the internet for other ongoing adoption videos or posts. Look for #5orszaglfolyo, #fogaddorokbeafolyot and #adopttheriver tags! Tell us what you liked about the videos and what you would do differently! If you feel like it, make a video about adoption yourself!

## 7.3.3.

Are you interested in the history of Morse? Want to write your name in Morse code? Read more <u>about morse on Wikipedia</u> or listen to how your name sounds <u>in morse on this website</u>. Code and express your message in Morse code!

TIP: Good photos and videos can inspire others to clean up their rivers. Upload photos and texts about the river adoption to the <u>Clean Tisza website</u>, of course only if you have the consent of the children and their parents.

# DETAILED GUIDELINES



We have recently tried to focus your attention on the river. If the Riversavers' Handbook has achieved its goal, you have spent more time near the river than before, and you have collected many good experiences, not to mention the waste. Now it's time to put the finishing touches to the project. The river adoption is a symbolic gesture, a celebratory event, a good programme for which many people come together. Parents, colleagues, friends, maybe even students from other schools, come along, learn a little about river conservation and enjoy the beauty of the waterfront. It's a good opportunity to reinforce the feeling that we do have a chance to stand together against plastic pollution. To make sure everything goes smoothly, we give you some good advice on how to organise a river adoption.

#### Before the adoption process:

You don't have to choose a big river section, just a small, easily accessible section that you can keep clean with the kids for the long term. Adoption does not imply a legal relationship, but it is useful to inform the municipality, the relevant water management authority, the relevant NGOs in the municipality, parents and the local media about the planned event. If you think it necessary, ask for permission to put up a sign. Be sure to inform the children and parents in good time of the scheduled date of the session. If you want to take photos of the children during the event, ask the parents' permission. Children should bring layered clothing appropriate for the weather and the usual snacks and drinks for outings. Be sure to have refillable plastic bottles, mugs or cups with you. Ask if anyone in the class is allergic to wasp stings. Check the weather forecast. In high winds, rain, or after a thunderstorm, avoid going outside. In open woods, watch out for falling branches and other hazards (such as steep banks). If you have time and facilities, make a small poster or awareness-raising text about the adoption. Ask the children to help you get creative! Get the leaflet out to as many places as possible. Put it up on the notice board, send it to other schools, send it to NGOs in your community. The more you can get involved, the better. Prepare all the supplies you need. Make the adoption sign watertight. If you put up a printed piece of paper, the first rain will wash the sign away. If you have the means, make a weatherproof sign. Laminating is a good option, or a plastic binder will do for a shorter period of time. Have a tool kit for putting it up, and if you're planning a longer event, make sure you have food and drink.

#### In the process of adoption:

Before the plaque is displayed, give a short pep talk. More than one person can speak. Summarise with the children why you chose this place. Speeches should not be long, and if possible, avoid making long speeches. It is much better if the children speak. Make sure that there are equal numbers of boys and girls. Remember, this is a public performance. After the speeches, the plaques can be displayed. Many people attach the sign to a pole driven into the ground, others prefer to put it on a tree. Never drive a nail into a live tree. Use rope instead. Avoid blowing up balloons or other polluting activities! If the mood is good, stay after the plaque unveiling and the river adoption and enjoy the programme!



# DETAILED GUIDELINES, CONTINUED.

Take the Riversavers' Diary with you, recall the best experience, the most interesting activity! Ask the children to tell you about the river rescue, and see if they can share their stories with others. If another educator or NGO is interested in what you are doing, offer them the 5 Countries 1 River project's Clean Tisza Textbook Series.

**TIP:** If you can organise it, delicious food and drink can go a long way to keeping guests staying longer. It's a good idea to organise fun water-related competitions and quizzes. For example, there's no competition like a duck throwing competition:-)

#### After a current adoption:

Once the guests have left and the interest has died down, the real work begins. Talk to the kids about how you'll maintain a plastic-free adopted beach. It can be tempting to put out bins, but we don't recommend it. In our experience, emptying bins regularly is a big job, and wild animals can damage the bags at night, picking out edible items. Instead, we recommend that you rely on the awareness-raising effect of the signs and their power to raise awareness. Even if people litter at first, don't get discouraged, things will change over time. Organise small river cleanups at regular intervals so that it's always a good experience to walk down to the beach. Once you're doing that well, it's worth paying attention to the wildlife. If your adopted shoreline lacks large hole trees, birds and bats will be grateful for a few holes. Make a map of the place, note how the vegetation and wildlife changes from season to season. With younger children, it's safe to venture further into the world of stories. Together, name the creatures, such as trees and birds. Go out to the riverbank as often as possible.

TIP: Regularly upload pictures of your adopted river section to social media! Try to convince the local community that a clean riverbank benefits everyone.

# 8. SUMMARY AND AFTERWORD



# GENERAL INFORMATION

We have now reached the end of the Riversavers' Manual. We have learned about the Tisza, the seven rules of the Riversavers, the Plastic Cup, Captain Plastic, Professor Greenheart, Lisa, Peter and the many inhabitants of the river. Our aim was to bring you and your students closer to rivers, living waters and nature. We hope we succeeded. Now it's time for some summing up, evaluation and closure.

It will come as no surprise to you that this session also starts with a letter, this time written to the children by P.J. the PlasticpiRAT. Along with the bottle mail comes an important document. Decide where it should go - on the bulletin board or in the Riversavers' Diary. The bottle post message itself has, of course, been chewed to pieces again by our dear firecracker. His message is essentially a tribute, a congratulation. If a chewed-up letter at the end of a book isn't enough for you, we have good news: the Erasmus+ 5 Countries 1 River programme riversavers are presenting a certificate to recognise that their schools have started training the river rescuers of the future. It is important to note that the Riversaver Diploma is not automatically awarded, so you will not find it here in the book, among the documents recommended for printing. You can apply for a Riversaver Certificate for your class through the Clean River website after you have sent us the necessary documentation. The same applies to the Young Riversaver Certificate. The card helps children to see in a personal document, in summary, how many river rescue actions (mapping, river cleaning, sorting, adoption, awareness raising) they have participated in. If you are happy, apply for a Young Riversaver card yourself. You deserve it, without you none of this would have been possible, and it's a testament to your environmental education skills! If you have successfully applied for the certificate, we will send you the certificates with it. When it arrives, post the certificate on the notice board or attach it to the Riversavers' Diary. You will need the following supplies to complete the session:

- √ 1 bottle post message printed out (tear the message into smaller pieces, as bedbugs are known to chew)
- ✓ 1 roll of cellux (to glue the message together)
- ✓ 1 plastic bottle for the message
- ✓ 1 printed copy of the Riversaver Statutes.

**ATTENTION:** On the next page will be the MESSAGE IN A BOTTLE. Print the message with the back cover, it will come in handy at the session! If you don't print the whole book, just the selected pages, you will save paper and costs, and you will also save the environment. To keep it playful and charming, cut the printer icon from the top left corner with scissors.





# Hi Puppies!

Do you know my handwriting, I mean, my typing? Yes, I'm the gadget maniac, P.J., the PlasticpiRAT! I apologize in advance if I accidentally chew this post to bits again, that's just the way we rodents are. I hope you can put the message together, though, because it's very important!

So. I send you, via bottle post, the greetings of Lisa, Peter, Professor Greenheart and Captain Plastic. And greetings from the teachers of the 5 Countries 1 River project from all the Tisza countries, from Ukraine and Romania to Hungary and Slovakia and Serbia. They all congratulate you with appreciation and great love for doing so much for the rivers, and of course for the oceans, for all of us. Thank you for reading through the Riversavers' Manual and for doing the exercises in it. It means that soon there will be adults living along our rivers who love and act for fresh, clean water. It was very hard not to put this certificate together. I'm also sending you the Riversavers Statutes, just in case you could use a reminder, I might nibble the edges of this one a bit, but I'm not sure.

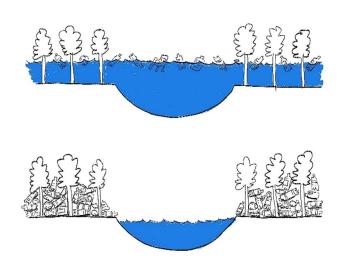
I have left my message at the very end of the letter. Congratulations to you too. Our adventures together are not over, but if your teacher wants it, we will soon find out what adventrues might lie ahead us. In the meantime, remember to enjoy the clean river, go down to the water as often as possible, have fun and enjoy nature!

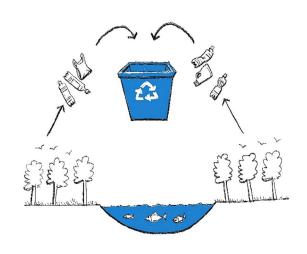
Your friendly friend, with sincere river-saving love,

# P.J., the PlasticpiRAT

PS: In addition to the Riversaver Statutes, we have another surprise. If you have done the sessions of the Riversavers' Handbook, you can request some amazing certificates on the Clean River website! Ask your teacher for details.







# Seven statutes of the RIVERSAVERS

I. WHAT HAPPENS TO THE RIVER IS FELT IN THE OCEANS.

2. THE RIVER GIVES LIFE AND CAN TAKE LIFE.

3. THE RIVER IS VULNERABLE AND NEEDS PROTECTION.

4. THE RIVER IS OLD AND STRONG.

5. THE RIVER AND PEOPLE'S LIVES ARE CLOSELY LINKED.

6. THE RIVER SHAPES THE WEATHER.

7. THE RIVER WAS BORROWED FROM OUR ANCESTORS AND IS PASSED ON TO OUR DESCENDANTS.



# 8.1 GROUP TASKS

#### 8.1.1.

As usual, P.J. the PlasticpiRAT has chewed the mail again. Fit the pieces together and glue them together with cellux. Read the letter carefully. Then take out the Riversavers' Diary together. Flip through it, recalling the most memorable moments. Read the Riversavers Statutes together. Decide which one to put on the wall and which one to staple into the Riversavers Diary.

#### 8.1.2.

Have you done all the sessions in the Riversavers' Handbook? Have you mapped, river cleaned, adopted? Then all you have to do is apply for a Riversaver Certificate for your class! Discuss in class if you would like to get one. If so, compile a text document of your work and attach some authenticating photos! Do the same if you would like to get a Young Riversaver card with your name on it! You can apply on the <u>Clean River</u> website. If you have any questions, contact the teacher!

# 8.2 INDIVIDIAL TASKS



#### 8.2.1.

Think about all that has happened to you since you found that first bottle post. We hope the Riversavers' Handbook has given you many shared experiences and adventures. Describe in a few sentences or draw a picture of your best and most interesting riversaver experience.

### 8.2.2.

Create a message or drawing especially for the Riversavers' Diary. Feel free to include a personal message, a well-wish, a drawing or even a funny story. Just like people do in a memory book or guest book. Whether the river rescue activities continue in schools or not, the diary will be a nice keepsake.



# 8.3 ONLINE EXERCISES

#### 8.3.1.

Check out the latest episode of the 5 Countries I River project's educational film series!

Choose the subtitle that corresponds to your native language from the settings. When the subtitle appears, start playback! Discuss with each other what was interesting about the film. If something in the film caught your interest, search for it on the internet and show others what you found!

## 8.3.2.

If you would like to get your class a Riversaver Certificate, or yourself a Young Riversaver Certificate, or would like your school to become a River Rescue School one day, don't hesitate! Go to the <u>Clean Tisza</u> website and fill in the questionnaire, upload the necessary photos and text material.





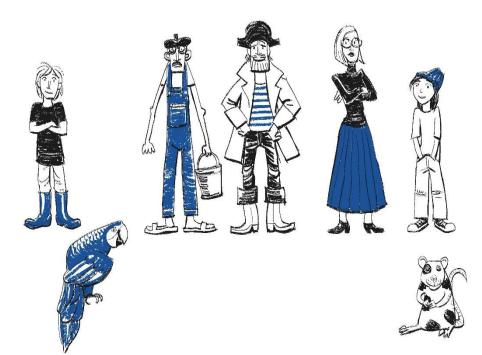
# DETAILED GUIDELINES

The Riversavers' Handbook is now closed, but this does not mean that the adventure is over with river adoption. On the contrary, it's just beginning! Caring for the adopted riverbank is an ongoing task in itself, but new areas can also be mapped and cleaned up. If you are interested to see how other schools are doing it, visit the Clean Tisza website from time to time and upload new content from time to time. If you personally liked this manual, we suggest you consider taking the online training for Plastic Cup riversavers. At the end of the training, you can take an online exam to earn your Riversaver certification. Educational institutions where a teacher with this qualification - with environmental education competences - is working are called Riversaver Schools. Many new and exciting opportunities open up for a Riversaver graduate. You can take part in international river cleanup actions such as the Plastic Cups, visit RiverSaver Centres, participate in community science research projects. This is not a task, of course, but an opportunity. If you have the time and energy, take advantage of it and get to know like-minded schools, teachers and students in the Tisza river basin. We hope that the teaching materials will help these schools to network over time and contribute effectively to cleaning up our rivers. We also bring to your attention the new intellectual products and books of the Erasmus+ 5 Countries 1 River project.

Raising river literacy was the first step, followed by the development of plastic literacy, and litter literacy discussed in the Clean Tisza Textbook Series. If we've piqued your interest, we look forward to seeing you on the Clean Tisza webpage!

We wish you lots of fun, successful education and a clear river!

teachers of the Erasmus+ programme 5 Countries 1 River, the riversavers and volunteers of the Plastic Cup initiative, and the characters of 5in1's world of tales: Captain Plastic, Professor Greenheart, Liza and Peter, P.J. the PlasticpiRAT and many others.



# 9. REFERENCES, USEFUL LINKS

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

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# Erasmus+