# Rivers in the Classroom

KS2 Education Programme Information Pack











"The children were given experiences and learning opportunities both inside and outside the classroom which enriched and enhanced their understanding of the local area. They were given an insight into environmental issues through first-hand experience."

- Year 4 teacher, Clitheroe



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## What is Rivers in the Classroom?

**Explore** your local river as a teaching resource. The Ribble Rivers Trust will help to unlock its potential through a flexible menu of classroom– and field-based workshops.



"Children are inspired to promote looking after the local environment and know the dangers facing wildlife and rivers. Most children in our school would never experience anything like this. The support was excellent."

- Year 4 teacher, Preston

As part of the Ribble Life Together project, Ribble Rivers Trust has developed the *Rivers in the Classroom* education programme to bring freshwater science into schools across the Ribble Catchment.

By encouraging pupils to expand their knowledge of their local rivers, we hope to promote the value of the Ribble's natural heritage and improve its condition for people and wildlife.

Rivers in the Classroom offers a broad range of activities, tailored to suit your teaching requirements and time commitments.

Through field– and classroom -based, practical activities, pupils learn about the relationships between living things and their environment. They discover how we can help to protect our rivers into the future by making small behavioural changes at home.

- Activities link to the National Curriculum for Key Stage 2.
- Pupils develop Spiritual, Moral, Social and Cultural (SMSC) values, recognised by Ofsted as important components in an outstanding school.
- \* Choose from individual workshops, combining workshops to create a full activity day, or an exciting project for the spring term.
- Equipment and training provided by Ribble Rivers Trust.
- Led by experienced, DBS checked education officers.
- \* Risk assessments provided.

Read on to discover what exciting activities your school could get involved with...

## River-Friendly School Award

The River-Friendly School Award is something that can be proudly displayed in your school for all to see. To achieve this, your class will need to:

- Take part in a full day of activities (all in one day or as two half-day sessions) OR take part in the Trout in the Classroom project.
- Carry out one self-chosen challenge for the school to have a lasting positive impact on the environment.
   Pupils should be able to monitor the progress of this challenge and use before/after data (e.g. photos or statistics) to show completion.
- Communicate what they have learnt and achieved through Rivers in the Classroom to the rest of the school and/or wider community.
- Develop a river-code or pledge for the school.





### Self-chosen challenge

To be awarded River-Friendly School status, the pupils in your class must decide on a challenge that will help their school have a lasting positive impact on the environment. This should be something new to the school and pupils should be able to monitor this challenge and show when it is in progress or has been completed. Below are some challenge ideas: your pupils can choose one of these or come up with their own.

- All the sinks in our school have push taps and are regularly checked for leaks.
- Our school gets milk delivered in glass bottles rather than plastic ones.
- Our school has water fountains to refill reusable water bottles.
- Our school has a 'walking bus' or encourages pupils to walk/cycle/scoot to school.
- Our school has an Eco-Committee.
- Our school has banned the use of nasty chemicals and uses eco-friendly ones instead.
- Our school has a natural area to work and play in.
- Our school offers training on using bikes and scooters safely.
- We have trees, plenty of grass and some flower beds in our school grounds.
- Our school grounds have a wildlife pond.
  - Our school has banned single-use plastics.

## Trout in the Classroom

Experience the magical world of brown trout from your own classroom!

Ribble Rivers Trust will install a tank and provide you with eggs. Study them as they grow and then release the young fish into your local river.



""The trout tank, and the final ceremony for the release of them. Easily one of the top ten experiences of a long teaching career."

- Head of KS2, Clitheroe

### **Activity content**

Ribble Rivers Trust will set up the equipment for you (including tank, water chiller and filter) and release the eggs into the tank,

We will give a presentation so that you and your pupils will know what to look out for and how to care for the eggs as they develop into fry (young trout).

A member of the RRT team will help you release the fry into your local river, where they will continue to grow and may eventually venture out to sea.

We'll help you enhance your pupils' learning experience by linking Trout in the Classroom to the National Curriculum.

### What's involved?

Observe each stage of the trout's life cycle as it unfolds in your own classroom.

Learn to care for the young fish and what conditions they need to survive in the wild.

Find out about food chains: what the trout eat and what eats them.

Search for other fascinating freshwater creatures when you release the fish, using a kick-sampling method.





### Riverside Workshops

Through engaging riverside workshops, pupils develop a sense of curiosity about the natural environment.



"My favourite thing about today is being able to spend time on learning activities outside with the class"

- KS2 teacher

### **Activity content**

This programme encourages pupils to develop key fieldwork skills of observation, problem-solving and understanding. The workshops are delivered in riverside locations local to your school. Covering everything from river geography to species adaptations and identification, these riverside workshops fit in with your school curriculum.

### Water safety session

Each of our riverside activities will include a session on water safety. Through this, pupils will find out about the dangers of river environments and learn easy to remember rules to stay safe by the river. Our education staff will give a demonstration before pupils have a go at safe rescue methods (all on dry land!).

### River expedition

Take a tour along your local riverbank and learn about river features, what organisms live in rivers and what they need to survive, and why trees are important to rivers. We will look at tree structure and function, discuss the impacts of pollution on our rivers and talk about how we can help conserve river habitats from home.

### Freshwater micro-safari

Pupils will discover how and why we collect river invertebrates using kick sampling, then use an identification key to find out what they have caught. They will find out how these organisms survive in freshwater habitats and learn about freshwater food chains.

### Angling coaching



Pupils can try a new sport whilst learning about river habitats. Please contact us to enquire about availability of this activity.

### Field-based Workshops

Through taking part in activities to create and conserve freshwater habitats, pupils can contribute to the future of the Ribble Catchment for wildlife and people.



"I have learnt lots of new river words and about how rivers work. Now I know that we need to help rivers become more natural and do things like planting trees."

- Year 5 pupil

### **Activity content**

These habitat creation and conservation workshops get pupils out of the classroom and working to directly benefit freshwater habitats . They will learn that they have the power to make a huge positive difference to our rivers and seas.

### Habitat creation: tree planting

Pupils will get hands-on and learn a practical outdoor skill while making a positive difference to the environment. They will learn why trees are so important to rivers, wildlife and people, and discover what trees need for life and growth.

### Habitat conservation: litter picking

Combine a walk along your local river with a big clean up of all the litter dropped there to prevent it from finding its way into the river. Pupils will learn about the problem of microplastics and how a simple piece of litter can have devastating effects for wildlife both in rivers and out at sea. Add in a bit of friendly competition to see who can pick the most litter!

All tools and equipment needed for these workshops are provided by Ribble Rivers Trust.

Please note that tree planting runs November-March only and is subject to local opportunities.





## Classroom-based Workshops

These engaging and informative indoor workshops cover a range of subjects, including science, geography, English, music and art.





"I liked looking through the microscope and seeing all the invertebrates"

- KS2 pupil

### **Activity content**

If you don't have a river near you or would prefer indoor, freshwater-themed fun, you can choose from our classroom-based workshops.

### Indoor freshwater micro-safari

We'll bring the invertebrates to you! Pupils will discover what creatures live under the water and sort them into groups using ID keys. We will also cover freshwater food chains.

### Exploring the river landscape

Using our interactive river table, pupils will learn about the water cycle and river formation, watch the force of water erode river banks and develop meanders, and see the impacts of climate change and pollution. Pupils will also find out how to conserve rivers from home and then race to restore the Ribble!

### Junior river explorers (further information on p.22)

Choose from a variety of classroom-based sessions to help pupils engage with rivers through science, geography, English, music and art, and to benefit their own well-being.

**River heroes:** Learn the consequences of our actions for rivers then create an action plan to use at home and school.

**River detectives:** Identify threats to rivers and discover why clean water is essential.

**Rivers and me:** Link healthy green and blue spaces to positive physical and mental well-being.

**Musical rivers:** Produce the music of a healthy river and discover what might affect that sound.

**Creative rivers:** Unleash your pupils' creativity as they learn about rivers through the arts.

**Water safety:** Learn the dangers of rivers and how to keep each other safe around water in a risk-free environment.

### Day Packages

Combine our riverside, field-based and classroom-based workshops to create a full, action-packed activity day with Ribble Rivers Trust.



Having worked with the trust for two years now, it is one of the most positive and valuable experiences for our children. Having the chance to get out of the classroom and explore their own local geography has not only helped them with their learning and understanding but supported their mental health and wellbeing"

- Year 5 teacher, Burnley

### Activity content

### Remarkable Rivers

Spend the morning discovering your local river and learning about all the life it supports before meeting some of these creatures close up by taking a sample of invertebrates from below the water's surface. Return to the classroom for the afternoon where you will have the chance to explore the river landscape with our interactive river table and complete a Junior River Explorers workshop of your choice.

### Terrific Trees

Head into the woods and wonder at the spectacular trees around you while taking part in a woodland treasure hunt. After lunch, spend the afternoon helping us to create a new woodland by planting trees and learning about what they need to help them grow big and strong.

### Sensational Streams

Enjoy a morning by the river, using your senses to explore and experience this freshwater habitat. Your young artists and writers will use their afternoon to get creative, taking inspiration from the river to produce a group piece of art.

See the example running orders of these three day packages on the next few pages. Timings can be agreed to fit your school day and we are always open to suggestions for making the days more tailored towards the needs of your pupils.



Please note that some of the activities listed are dependent on the season and opportunity.

### Remarkable Rivers

We are adventurous

### Morning (2 hour session)

Whole class walks to the local river

### Launch-in

*Introduction to the day* 

### **Water Safety Session**

Snack and drink

### **River Expedition**

Take a tour along your local riverbank and learn about river features, what organisms live in rivers and what they need to survive.

### Freshwater Micro-Safari

Discover a hidden world, just beneath the water's surface.

### Lunch (1 hour)

Outside – weather permitting! Walk back to school

### Afternoon (2 hour session)

Class divided into two groups

### Group 1

Exploring the River Landscape
Use the interactive river table to
learn how to conserve rivers and
restere the Ribble.

### Group 2

Junior River Explorers Choose from a variety of classroombased sessions to help pupils engage with rivers.

### Afternoon break

### Junior River Explorers

Choose from a variety of classroombased sessions to help pupils engage with rivers.

### **Exploring the River Landscape**

Use the interactive river table to learn how to conserve rivers and restore the Ribble.

### **River Reflections**

Whole class comes together to recap on the day and discuss their thoughts and feelings of the experience.

"Activities were local and meaningful to our children ensuring that our children, staff and helpers thoroughly enjoyed the session"

- KS2 teacher, Chatburn

### **Terrific Trees**

We are nature's heroes

### Morning (2 hour session)

Whole class walks to the local woodland

### Launch-in

Introduction to the day

### **Woodland Wander**

Explore the woodland and learn why trees are so important to the environment, rivers and people

Snack and drink

### Treasure Hunt

How many items can you tick off from your Woodland Treasures book?

### Lunch (1 hour)

Outside - weather permitting! Walk back to school

### Afternoon (2 hour session)

Whole class meets at planting site Class divided into two groups

Group 1

Tree Planting

Get hands-on to learn a practical outdoor skill and make a positive difference to the environment.

Group 2

### **Woodland Activities**

Take part in some woodland-themed activities.

Afternoon break

### **Woodland Activities**

Take part in some woodland-themed activities.

Tree planting

Get hands-on to learn a practical outdoor skill and make a positive difference to the environment.

### **River Reflections**

Whole class comes together to recap on the day and discuss their thoughts and feelings of the experience.

"The tree planting was epic, I never knew I was that good at using a hammer. I can't stop thinking about it."

- KS2 pupil

### **Sensational Streams**

We are inspired

### Morning (2 hour session)

Whole class walks to the local river

### Launch-in

Introduction to the day

### Water Safety Session

Snack and drink

### Sensory River Expedition

Use your senses to explore and experience the life of the river. What sounds can you hear? What colours can you see? What does nature smell like? How does soft moss compare to rough bark?

### Lunch (1 hour)

Outside – weather permitting! Walk back to school

### Afternoon (2 hour session)

### **Creative Workshops**

Use fresh inspiration from the morning's expedition to create a group piece of art. Choose from a River of Words' poem or arts and crafts project – get in touch to discuss any specific projects you have in mind.

### Afternoon break

### **Showcase**

Stand back and admire your work from the day.

### **River Reflections**

Whole class comes together to recap on the day and discuss their thoughts and feelings of the experience.







"The river table is possibly the best teaching aid that I have ever seen and, in terms of doing a river topic, definitely the best."

- Head of KS2, Clitheroe







"I am sure that the children's experiences today will stay with them and encourage them to respect our rivers in general and the Ribble Catchment in particular."

- KS2 teacher, Chatburn

"Excellent 'hands on' approach with magnifying glasses and identification tables. Very well organised with knowledgeable staff who inspired the children."



- Year 5/6 teacher, Gisburn



## Junior River Explorers

This selection of half-day classroom-based workshops have all been designed to run alongside our other interactive workshops or as stand-alone sessions and give pupils a variety of activities to keep them busy.



"Brilliant interaction. Great facts, visual aids and accurate questioning. The children were enthralled."

- Year 4 teacher, Preston

### RIVER HEROES

### **Activity Outline**

Pupils will learn how their actions can affect river habitats before finding out what small changes they can make at home and school to help improve our rivers. Pupils will then create their own action plans for how they will do one amazing thing and persuade others to do the same. They will finish the session by making and decorating a pledge to help the rivers, which they can take home or display in the classroom.

### **Session Aims**

- (1) Pupils know how our actions affect rivers
- (2) Pupils understand how we can help to improve river condition from home
- (3) Pupils make and justify choices of actions
- (4) Pupils design and plan a method to do something to improve river condition at home

### **Learning Outcomes**

By the end of the session, all pupils will be able to...

- (1) Provide examples of how we can help to improve the condition of rivers from home
- (2) Express understanding of river habitats and the processes that affect them
- (3) Demonstrate creative thinking to overcome challenges
- (4) Understand how and feel empowered to make a behaviour change at home

- \* English
- Science
- \* Art















### RIVER DETECTIVES

### **Activity Outline**

Pupils will discover what threats rivers face through an interactive team challenge before learning more about the problem of plastic pollution and the United Utilities 'what not to flush' campaign. We will end the session with a survival game which highlights the importance of clean water for all life on Earth.

### **Session Aims**

- (1) To give pupils an understanding of why we need rivers and what threats rivers face
- (2) To help pupils understand the magnitude of the plastic crisis and what they can do at home to help
- (3) Pupils understand how they can help rivers by only flushing certain things down the toilet
- (4) Pupils gain understanding of the need for clean water for all life on Earth

### **Learning Outcomes**

By the end of the session, all pupils will be able to...

- (1) Describe and explain the importance of rivers to humans
- (2) Identify some threats to rivers and understand why we must reduce the threats rives face
- (3) Demonstrate that clean water is essential for all life on Earth

Some pupils might be able to...

(4) Discuss effects of bioaccumulation in relation to plastics in the food chain

- Science
- \* Geography





### RIVERS AND ME

### **Activity Outline**

Through this workshop, pupils will experience how a healthy and biodiverse river habitat can make them feel compared to an unhealthy and less biodiverse river habitat. They will form the link between their well-being and connecting with nature and create some "when I see water..." posters before enjoying some Forest School type games either outside or in the classroom.

### **Session Aims**

- (1) For pupils to associate green and blue spaces with positive well-being
- (2) Pupils feel encouraged to protect rivers to benefit their own and each other's well-being
- (3) Have fun!

### **Learning Outcomes**

By the end of the session, all pupils will be able to...

- (1) Recognise that healthy green/blue spaces can lead to positive wellbeing
- (2) Relate their feelings to the environment and nature

Most pupils will be able to...

- English
- Science
- \* Physical Education













### MUSICAL RIVERS

### **Activity Outline**

Pupils will work with a professional musician to identify all the sounds of a healthy river. Together, they will create an electronic river song then discuss what will happen to that music if we let the rivers become unhealthy. Pupils will then be given the opportunity to use musical instruments to compose and perform their own river music.

### **Session Aims**

- (1) For pupils to learn what makes a healthy and species rich river through the medium of sound.
- (2) Pupils consider what will happen if we don't look after our rivers based on what sounds we would lose.
- (3) Pupils are confident in creating their own river-inspired music

### **Learning Outcomes**

By the end of the session, all pupils will be able to...

- (1) Describe the sounds they might hear at a river that is healthy and full of life.
- (2) Make comparisons between healthy and unhealthy rivers through the medium of sound.
- (3) Use musical instruments to create their own piece of river music.

- \* English
- \* Music





### **CREATIVE RIVERS**

### **Activity Outline**

In this creative workshop, pupils will have the opportunity to learn about rivers through the arts. This may be a 'River of Words' poetry project to expand their knowledge of the English language, or an arts and crafts project. When it comes to arts and crafts, there are many possibilities, which we would discuss with you.

### **Session Aims**

- (1) For pupils to create something that they can be proud of to either display at home or in the classroom
- (2) Pupils learn how pollution affects rivers and water quality
- (3) Pupils feel empowered to protect rivers after using them as inspiration for their arts and crafts

### **Learning Outcomes**

By the end of the session, all pupils will be able to...

- (1) Use their knowledge of river habitats and/or pollution to create a piece of art
- (2) Explore their creative abilities using ecological subjects
- (3) Share their plan to help conserve river habitats

Most pupils will be able to...

(4) Experiment with different materials to produce their art

- \* Art
- \* English











### WATER SAFETY

### **Activity Outline**

An engaging and informative workshop about water safety near standing and flowing water. Pupils will learn not only how to keep themselves safe near water but also how to keep each other safe and what to do if someone finds themselves in trouble in the water. There will be a practical demonstration that pupils can take part in too (all on dry land!).

### **Session Aims**

- (1) Pupils understand the key health and safety considerations when near standing and flowing water bodies.
- (2) Pupils feel safe when near water
- (3) Pupils would know what to do if they saw someone in trouble in the water

### **Learning Outcomes**

By the end of the session, all pupils will be able to...

- (1) Give examples of health and safety considerations when near flowing water
- (2) Understand that shouting/calling for help is the first thing to do if you spot someone in trouble
- (3) Demonstrate how to use equipment available to help someone in danger in the water (but know to do so only if they can do it safely)

- \* Physical Education
- \* English















"A superb series of activities which were all well planned and executed, being both engaging and interactive while fulfilling the relevant National Curriculum objectives."

- KS2 teacher





## Rivers in the Classroom and Ofsted

Rivers in the Classroom can help your pupils develop spiritual, moral, social and cultural (SMSC) values—recognised by Ofsted as important components of an Outstanding school.





Social, Moral, Spiritual and Cultural Development







	Value	Rivers in the Classroom
	Sense of enjoyment and fascination about the world around them.	First-hand experiences of the natural world. Students are engaged in the ecology and conservation of local habitats using fun and memorable experiences.
Spiritual	Use of imagination and creativity in learning.	Some workshops include using arts, crafts or music to aid with learning about rivers. Pupils will use their imagination to design a way to persuade others to help their river.
	Willingness to reflect on their own experiences.	Space and time is offered throughout for reflection, including at the beginning and end of a session.
	Recognise the difference between right and wrong and apply it to their own lives through making responsible and reasoned judgements.	Pupils develop and appreciation of why we should respect and be mindful of the environment.
Moral	Understand the consequences of their behaviour and actions.	Pupils build and understanding of how humankind's impact on the environment is unsustainable and explore how our behaviour may be made more sustainable.
	Interest in investigating and offering reasoned views about moral and ethical issues.	Pupils recognise our moral and ethical responsibility to protect the environment and discuss human and environmental impacts on rivers.



	Value	Rivers in the Classroom
	Working and socialising with other pupils, including those from different religious, ethnic and socio-economic backgrounds.	Activities include working in mixed groups to carry out practical investigations and participate in activities relevant to their community.
Social	Acceptance and engagement with the fundamental British values of democracy, the rule of law, individual liberty and mutual	Pupils feel empowered to exercise their individual liberty when selecting their 'one amazing thing' to do for rivers. Mutual respect is promoted when others are sharing
Cultural	Willingness to participate in and respond positively to artistic opportunities.	Various workshops that we offer challenge each pupil to use their imagination to experiment with creative thinking techniques. In the more creativity-focussed workshops, pupils use creative expression to explore their thoughts about the river environment.





# Rivers in the Classroom and the National Curriculum

How can Rivers in the Classroom enhance you pupils' learning across the Key Stage 2

National Curriculum?



Subject	KS2 National Curriculum	Links to Rivers in the Classroom
Science	<ul> <li>Working scientifically</li> <li>Plants</li> <li>Animals, including humans</li> <li>Living things and their habitats</li> <li>States of matter</li> <li>Evolution and inheritance</li> </ul>	<ul> <li>Systematic and careful observations over time</li> <li>Using scientific evidence to support or refute ideas</li> <li>Explore the requirements of plants for life and growth</li> <li>Identify that animals get nutrition from what they eat; food chains</li> <li>Living things can be grouped in a variety of ways; classification keys</li> <li>Environments can change and this can pose dangers to living things</li> <li>Life cycle of a mammal, an amphibian, an insect and a bird</li> <li>Evaporation and condensation as stages of the water cycle</li> <li>Animals and plants are adapted to suit their environment in different ways</li> </ul>
Geography	<ul> <li>Human and physical geography</li> <li>Geographical skills and fieldwork</li> </ul>	<ul> <li>The water cycle and its role in freshwater ecosystems</li> <li>Formation and flow of rivers including erosion and deposition processes (using the river table)</li> <li>Use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods</li> </ul>
Maths	<ul><li>Numbers</li><li>Measurement</li></ul>	<ul> <li>Taking and recording measurements and counts</li> </ul>



Subject	KS2 National Curriculum	Links to Rivers in the Classroom
English	<ul> <li>Reading (words and comprehension)</li> <li>Writing (composition, vocabulary, grammar and punctuation)</li> <li>Discuss non-fiction</li> </ul>	<ul> <li>Listening to and discussion non-fiction</li> <li>Prepare poems and play scripts to perform</li> <li>Provide reasoned justifications for their views</li> <li>Participate in discussions about what they are learning</li> <li>Reading and spelling scientific vocabulary</li> <li>Plan, draft, write, evaluate and edit writing</li> </ul>
Art and design	<ul> <li>Pupils produce creative work, exploring their ideas and recording their experiences</li> </ul>	<ul> <li>Use a range of materials to creatively design and make products</li> <li>Create sketch books to record their observations</li> </ul>
Music	<ul> <li>Pupils learn to use their voices, to create and compose music on their own and with others</li> <li>Pupils understand and explore how music is created</li> </ul>	<ul> <li>Use their voices expressively and creatively</li> <li>Play tuned and untuned instruments musically</li> <li>Experiment with, create and combine sounds</li> <li>Play and perform in solo and ensemble contexts</li> <li>Improvise and compose music</li> <li>Listen with attention to detail and recall sounds</li> </ul>
Physical education	<ul> <li>Pupils are physically active for sustained periods of time</li> </ul>	<ul> <li>Outdoor and adventurous activities both individually and within a team</li> </ul>



The Ribble Rivers Trust's education programme to bring freshwater science to schools across the Ribble Catchment.

### Why book Rivers in the Classroom?

- ✓ Engaging and interactive hands-on experience.
- ✓ Linked to the *Key Stage 2 National Curriculum* and tailored to suit your teaching requirements and time commitments.
- ✓ Enables children's *Spiritual, Moral, Social and Cultural* development, recognised by *Ofsted* as important components of an Outstanding school.
- ✓ Delivered by our *experienced education team* who are all *fully DBS checked*.

### Here's what teachers say:

"An excellent experience for children to see the river at first-hand. This was a great programme, finely-tuned for children, very well-pitched and everyone thoroughly enjoyed it."

"Very educational—links to many KS2 science and geography units. The staff were exceptional."

"A truly remarkable learning experience."

### How do I book?

For more information, contact Ribble Rivers Trust:
ribbletrust.org.uk | 01200 444452 | admin@ribbletrust.com
ribblelifetogether.org







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