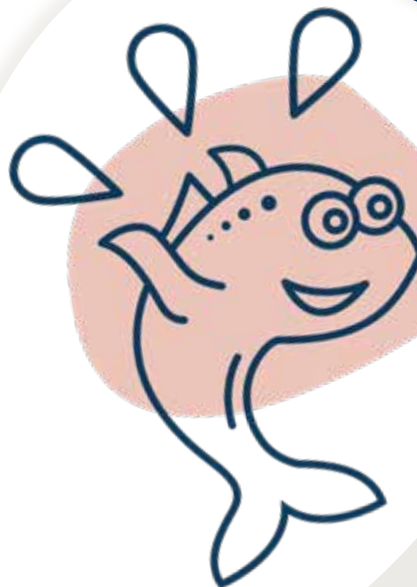


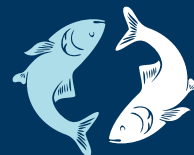
# UNLOCKING THE SEVERN

## Activity Pack

### Pesky Pollution

**FOR  
KIDS!**





### Background information:

Water is precious. We can't live without it and neither can the wonderful wildlife that lives in our rivers. We get the oxygen we need to breathe from the air, but lots of animals that live in the rivers get their oxygen from the water. Unfortunately, some things that people do can make the water dirty or polluted. Pollution refers to anything that is introduced into a habitat which has a harmful effect on plants and animals living there. We know that the air we breathe can sometimes be dirty and polluted, but do we think about what pollution in the water means for the animals who depend on it?

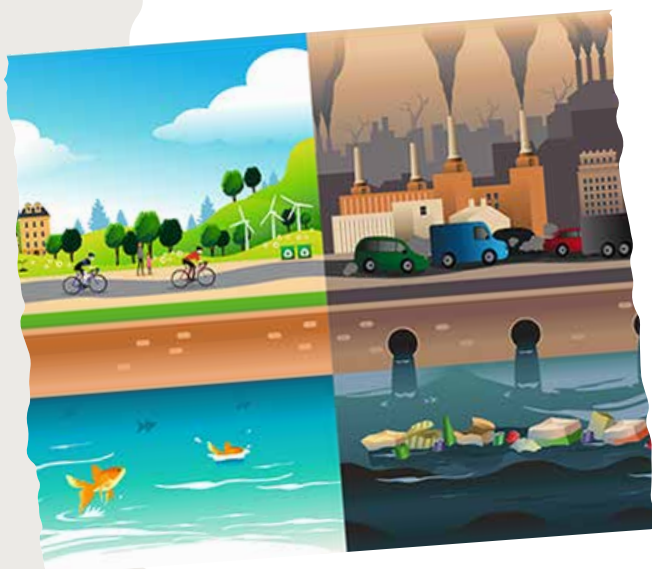
The good news is there are lots of things we can all do to help our rivers and wonderful wildlife!

### What you will need:

All you need for these activities is a pencil or pen, colouring crayons, and paper. There are opportunities for extra creativity and for these you will need scissors, some kitchen items/clean litter and everyday household items/materials for experiments.

### Activity!

Begin by drawing a beautiful river environment with clean water, lots of wildlife and plants. Keep this picture in mind when thinking about how pollution can disrupt this habitat.





**Pollution can enter our rivers in different ways, look at the picture carefully and see if you can spot 8 different ways in which the river is being polluted.**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_



## Answers:

These are some of the things that we spotted; how many did you find?



1. Oil leaking from car
2. Rubbish coming out of bin bags
3. Abandoned bike
4. Fertiliser dropping from trailer
5. Sewage from toilet piped into river
6. Person emptying dirty water from bucket into the river
7. Manure from cattle
8. Person spraying pesticide

## Activity!

Now you have your list, choose 3 and think carefully or research online before writing a sentence about how each of these could affect the wildlife in the river.

## Hint!

Think about which ones might:

- Cause a lack of oxygen in the water
- Be ingested by animals or trap them
- Poison animals



Think back to the river scene you drew at the beginning, how would it look with all this pollution added?



## Helping to reduce pollution in our rivers

We know that polluting our rivers isn't good for us, or the creatures and plants that live there... but how can we help? Well one way is by making sure we put our waste in the right place!

Below are some of the things we get rid of in our everyday lives, but they all need to be dealt with differently. Some things can be recycled and turned into something new, some things can be composted and used to help plants grow in the garden, and some things that can't be reused and should be put in the general waste or rubbish bin.



### Activity!

What goes where?  
Either draw a line to connect each item to its destination or cut them out and arrange them at home!



### Remember

We should never drop litter, always place your unwanted items in the appropriate bin.

## Answers

Compare your answers to the list below.  
How did you get on? Were there any surprises?



Compost	Recycling	General Waste
Carrots	Cardboard Box	Cotton Wool Buds
Egg Shells	Newspaper	Crisp Packet
Leaves	Tin Cans	Oil



## Activity!

Now we know how important it is for people to put things into the correct bins. For the next activity have a go at designing a bin which would make people want to use it.



## Did you know?

most crisp and sweet wrappers are in a metallised form of plastic wrapper which can't be recycled, so need to go in your general waste bin. There's an easy test to check if you're not sure. Give the wrapper a scrunch in your hand: if it stays scrunched, it is foil and can be recycled, if it springs back, it is metallised plastic and can't be recycled.

## What about a sewage system?

### The Three P's

Not everything we get rid of ends up in a bin or the compost. Some things go down our toilets and into the sewage system. Unfortunately, lots of rather strange things make their way down there and these can even cause blockages. Sometimes to remove the blockage, untreated sewage water is sent straight into the river!

Lots of people do not know which items should be flushed down the toilet and which should not; but really it is very simple to remember... only three things should go down the toilet and they all begin with P!



### What you will need:

You will need:

- An old 1 litre bottle
- Paint
- Paint brushes
- Decorations and glue
- A funnel (to help when pouring your liquid into the fat trap)

### Activity

You might not know this, but our kitchen sinks are also channels to the sewer system. Food waste, oils, fats and grease that go down the kitchen sink can lead to blockages, oh no! They might go down runny but as soon as they reach the cool walls they go hard and solid. The river and its wildlife need your help to protect them from these pollutants. One thing you can do is to stop the wrong things getting down the plug hole by making a fat trap!

1. Remove any labels from the bottle
2. Add your special touch by decorating the bottle. Making it colourful will help it stand out and remind people to use it.
3. Once the bottle is dry, give it to your parents or family member and tell them to pour used fat into it after cooking. They will need to let the fat cool first and use a funnel to avoid spills!
4. If you are using a bottle with a lid, keeping it shut will help make sure any smells stay inside.

Well, that was a lot of information about pesky pollution in our rivers and how we can help! If you want to take it further and try some at home experiments, have a go at some of these!

**Make sure you get help from an adult and ask permission before using equipment and materials.**

## Extension Activity



### How long until it's gone?

Collect about 10 items from around your home, such as: a crisp packet, can, glass bottle, plastic milk, carton, newspaper, piece of string, apple core, old sock. Then sort them into 2 groups, one of things made from natural products, like the apple core. Your other group is for manmade products like plastic milk cartons. Guess how long it will take each item to be broken down/decompose. Now research online to see how long it will take for each to be broken down if it got into a river and then ended up in the sea.



## Extension Activity

### Awful acid rain is rotten!

Acid rain happens when polluting gases from cars mix with rain as it falls. This simple experiment shows just how bad it can be for plants. Remember when acid rain falls it finds its way in to rivers and streams. It's not good for our watery wildlife.

Plant three peas or any quick growing plant, mustard seeds in little pots on your windowsill. Let them all start to grow for a week or so. Once they have all got a few leaves you can start to water them differently. Water one with clean water, one with the one teaspoon of vinegar in the water and one with 3 tablespoons of vinegar in the water. The vinegar is an acid. See what happens to the different plants after a few weeks! What do you think acid rain would do to the wildlife in the river?



## Portable Pollution and sometimes it pongs!

A simple way to see pollution. Get two clear plastic jars or containers and fill them both with clean water. Then fill one with bits of soil, plastic and paper. This means you are polluting the water. Next add some vinegar to your polluted water, sometimes pollution smells too. Which jar looks better? Imagine if there were animals in the polluted jar, what would it be like for them trying to live there? Does the pollution disappear? What would happen in a river or a stream? The pollution would not stay in one place but would flow down the river to the sea, affecting lots of animals along the way.

### Extension Activity



### Extension Activity



## Oil slick and stick!

Any kind of oil pollution is very bad for wildlife, as it is so hard to clear up. See for yourself! Get a shallow bowl or tray and fill it with water, then put a few drops or squirts of olive oil on the top. What do you see? Now try and get the oil out of the water. Can you do it with a spoon or a sponge? When oil gets onto or into animals it is really harmful. Think of how it might affect water birds too, if it gets on their feathers.