

# River Guardians

## Key Stage 2 Lesson Plan

### Introduction:

Before the Industrial Revolution Salmon were abundant in the River Don, until pollution and the building of weirs saw their decline. Supported by the Heritage Lottery Fund, our 'Living Heritage of the River Don' project is seeking to reverse the effects of the industrial revolution and introduce Salmon back to the River Don as far as Sheffield for the first time in 200 years.

By using the example of Salmon, our 'River Guardians' programme is a great opportunity for pupils to learn about living things and their habitats in a real world setting. We will investigate what animals can be found in and around the river, teach pupils that negative impacts can be reversed, and that we all have a part to play in looking after our natural environment.

### Learning Objectives:

- To identify the groups of living things that can be found in a river habitat and why
- To understand that rivers are natural, but that human actions have altered them
- Learn the names of some of the main features of the river
- To understand some positive and negative effects of human action on habitats, and how people can affect their environment
- Learn the life cycle of the Salmon in relation to the effect of human action (upper KS2)

### National Curriculum links:

- KS2 Science: Living Things & their habitats
- KS2 Design and Technology: Making and Evaluating products
- KS2 Geography: Location Knowledge – Identify key topographical features including rivers and understand how they have changed over time
- KS2 History: An aspect of British history – The Industrial Revolution
- KS2 PSHE & Citizenship: Preparing to play an active role as citizens: 2c. To realise the consequences of antisocial and aggressive behaviours, on individuals and communities
  - Knowledge, Skills and Understanding: a) take responsibility, d) make real choices and decisions, g) consider social and moral dilemmas

River Guardians will focus on the River Don, so could also contribute to:

- KS 2 History: A Local History Study

### Lesson Plan:

Session 1 [2 hours] – In school or host venue

1. The session will start with an introduction to the River Don. Pupils will locate the river on a map and follow its course, identifying where their school is.
2. We will discuss the river and decide if it is natural or man-made. Pupils will be asked to identify key features of the river, to include: Weirs, confluences, tributaries, meander.
3. A flashcard activity will ask pupils to identify what animals are found in and around the river. We will use cards to sort the animals into groups. This activity will introduce

the concept that some species are not natural to Britain.

4. Pupils will be asked to link the ideas discussed in number 2 & 3 by discussing why Salmon disappeared from the River Don and how they are being re-introduced. This will involve describing what weirs and fish passes do and how they work. To demonstrate this we will lead a group activity where students are asked to correctly order a story board of the impact of weirs and fish passes along the river.
5. Building on the idea that negative impacts can be made better, we will discuss how people can help their natural environment.

Options for activities to support this could include:

- An activity for pupils to make their own bird feeder out of recycled materials
- A group activity to make bat or bird boxes, or an insect habitat for the school grounds

Session 2 – on site at a location on the River Don

6. Water Safety talk, formal discussion about safety near the river.
7. We will review what was learnt in session one, including identifying features found on the river. Depending on which activity was chosen to end session 1, and the time between sessions, we will discuss if the bird boxes etc. have been visited.
8. Pupils will carry out an investigation to find animals and insects that are living in and around the river. This activity could include observation and listening, river dipping and/or bug hunting.
9. While on site pupils will be encouraged to put into action some of the points raised in the discussion about improving the natural environment. Ideally this would include a litter pick, or placing a bat / owl box (if permission is granted by the land owner and it can be maintained).
10. The session will end with a group discussion about what has been learnt and what pupils think they will do to help look after their environment in the future.

Once the two sessions have been completed, we will forward on a 'River Guardian' certificate to each pupil.

**Resources:**

To be provided by Don Catchment Rivers Trust:

- Map of the River Don
- Pictures of river features
- Animal cards
- Weir activity cards
- Small packet of bird seed (if bird feeder activity is chosen)
- Bat or bird box kits (if applicable)
- Bug hunting / river dipping kit – to be carried by pupils in a bag
- Litter picking equipment (litter grabber, small bag)
- High visibility bibs (if not provided by schools)
- River Guardians certificate

To be provided by pupils:

- A plastic milk carton (if the bird feeder activity is chosen)