**WCRT KS2 Wild Rivers Programme**

**Outcomes for West Cumbria Rivers Trust**

1. To increase knowledge of rivers and lakes
2. To increase knowledge of the work of WCRT and partners
3. To increase appreciation of rivers and lakes
4. To increase appreciation of the work of WCRT and partners
5. To increase action to improve rivers and lakes

**National Curriculum links**

**KS2 Geography**

Focus

* How land-use affects rivers
* Using symbols and a key
* Observe and present the human and physical features in the local area using sketch maps
* Use OS maps

Briefly covered or revised

* Describe and understand key aspects of rivers
* Use the 8 points of a compass
* Use 6 figure grid references

**KS2 Science**

Focus

* Use keys
* Explore examples of human impact on the environment
* Identify and group animals (vertebrates and invertebrates)

Briefly covered or revised

* Construct and interpret food chains (identifying producers, predators and prey)
* Insect life-cycles
* Identify how animals and plants are adapted to their environment
* Report on findings from enquiries
* Recognise that environments can change and that this can sometimes pose dangers to living things
* Observe and compare movement of animals

**KS2 Art (depending on option chosen)**

* Improve art and design techniques using a range of materials
* Learn about a great artist (Andy Goldsworthy)

**KS2 Literacy (depending on option chosen)**

* Read aloud their own writing
* (from KS1: nouns and adjectives)

**Aims**

1. Review some river words
2. Learn about some special freshwater wildlife
3. Investigate how rivers are affected by the land around them; what’s good and bad for rivers
4. Think about how you might help rivers

**Programme Summary**

1. Suggested pre-visit self-led activities
* An introduction to key rivers terms and definitions
* A study of the water cycle delivered as part of a water efficiency workshop sponsored by United Utilities
* An independent research activity on why rivers are important
1. Classroom session
* Rivers on Maps
* Cumbria’s special freshwater wildlife
* Good and bad for rivers in photos
* Soil experiment
* Rivers in Roleplay
* River Pledges
1. Outdoor session
* Photo treasure hunt
* Round robin of three activities
* Stream dip
* Walk-over survey

 Either:

* Outdoor art
* River poetry
1. Suggested post-visit self-led activities
* Write a report to summarise the findings of the soil experiments
* Make a key
* Study the life-cycle of a mayfly and compare it to a frog or butterfly
* Make food chains from the wildlife we saw or discussed
* Share the learning through a display, assembly, peer teaching session or video

**Session plan**

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| **INDOORS** |
| **Time** | **Timing** | **Activity** |
| 8.20 | 40 mins | **Set up time** |
| 9 | 5 mins | **Name badges** |
| 9.05 | 15 mins | **Intro PowerPoint** to cover* WCRT
* The plan for the day
* What do you already know?
* Local beck
* Local river
* Where we are going
 |
| 9.20 | 20 mins | **Rivers on Maps** to cover* Using OS maps

Revised not taught:* Key river terms (confluence, meander, tributary, source mouth)
* Compass directions
* 6 figure grid ref
 |
| 9.40 | 10 mins | **Intro river wildlife** **PowerPoint*** Go through how to use a key as a class
 |
| 9.50 | 20 mins | In small groups * Pupils to use a key to identify some freshwater invertebrates
* Done as a **“who am I?”** activity
* Given an information sheet on each of their animals (to include adaptations, food chain info, locomotion, and photos)

Extension:* Pupils to make food chains using their animals using info sheets
 |
| 10.10 | 10 mins | As a class* Groups **share cool facts** about their animals
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| 10.20 | 10 mins | As class**good and bad for rivers 1: PowerPoint with Q and A**Pick out effect of:* Soil washing into rivers
* Pollution
 |
| 10.30 | 20 mins | **BREAK** |
| 10.50 | 5 mins | **Review using whiteboards*** Name something good for rivers
* Name something bad for rivers
* A special animal that lives near or in rivers
 |
| 10.55 | 20 mins | As class* **Intro soil experiment**
* Questions, equipment, and do first experiment guided
 |
| 11.15 | 30 mins | In small groups* Pupils do **soil experiment** to demonstrate effect of vegetation and compaction on water quality and how quickly water gets into the river
 |
| 11.45 | 10 mins | **Tidy up** |
| 11.55 | 5 mins | Spare time |
| 12 | 60 mins | **LUNCH** |
| 1 | 5 mins | Spare time |
| 1.05 | 5 mins | **Review using whiteboards**What did you learn from the soil experiments? |
| 1.10 | 20 mins | As class(with discussion in pairs and answering on whiteboards)**Good and bad for rivers 2: quiz on slow the flow**Pick out effect of:* Importance of slow the flow
 |
| 1.30 | 15 mins | **Discussion on soil exp class results** |
| 1.45 | 10 min | Small groups**Good and bad for rivers 3: sorting photos** |
| 1.55 | 25 mins | **Rivers in Roleplay** |
| 2.20 | 20 mins | **Storytime** |
| 2.40 | 10 mins | In pairs**Just a minute**A and BA’s talk for 1 minute about what they have done todayB’s write down 3 key points on white boardSwitch overB’s talk for 1 minute about what they have learnedA’s write down 3 key points on whiteboardsShare as a class |
| 2.50 | 10 mins | **River Pledges** |
| 3.00 | 15 mins | Spare time or Extension (Review aims)* Write or draw **Postit notes** and stick next to aim
* Review as class
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| **OUTDOORS** |
| **Time** | **Timing** | **Activity** |
| 10 | 10 mins | **Intro** activities as a classH and S |
| 10.10 | 30 mins | **Photo treasure hunt**Split into three groups, each led by a different adult and based in a slightly different place |
| 10.40 | 45 mins | **Activity 1** | Science activity: River dipGeog activity: Walk-over survey |
| 11.25 | 45 mins | **Activity 2** |
| 12.10 | 45 mins | **Lunch** and run around |
| 12.55 | 5 mins | Quick reminder **H and S** |
| 1.40 | 45 mins | **Activity 3** * Art: natural art or
* Literacy: river poetry
 |
| 1.50 | 10 mins | **Spare time** |
| 2 | 10 mins | **Summary**If dry:* Simplified #sheet (learned, best bit, new skill, share)

If wet:* Mini whiteboard? Verbal? Dictaphone?
* What have you learned and enjoyed? what have you tried for the first time? what are you going to share?
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| 2.10 | 10 mins | Prepare for journey back to school |
| 2.20 | 40 mins | Journey back to school |
| 3 |  | Arrive at school |

**Resources and equipment**

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| **INDOORS** |  |
| **Resource** |  | **Equipment** |  |
| Intro PowerPoint |  | Staff name badge |  |
| Photocopy of questions for maps |  | White stickers for pupils’ names |  |
| Intro to wildlife PowerPoint |  | Laptop |  |
| Keys |  | Memory stick with Powerpoints  |  |
| Factfiles |  | Small postit notes |  |
| Headbands and pegs |  | OS Maps |  |
| Pictures of animals on small cards |  | Mini whiteboards and pens |  |
| Good and bad rivers powerpoint |  | Big whiteboard pens |  |
| Good and bad rivers photos A5 |  | Soil experiment stuffBottle fields x 20SoilSoil cups x 6“grass” x 15Rainmaker lid x 6Small bottles x 6Plastic jug x 6Measuring cylinder x 6Stopwatch x 6River pots x20Wash bottle x6Sponge x6Cleaning cloths Tablecloths x 6Grey trays x 12Trowel  |  |
| Good and bad rivers prompts |  |
| Soil experiment instructions |  |
| Roleplay scenarios and info |  |
| River Pledge sheets |  |
| Print out of lesson plan |  |
| Booking form |  | Dictaphone? |  |
| Soil exp. PowerPoint |  | Big Postit notes? |  |
|  |  | Toy fish |  |
|  |  | Freshwater pearl mussel shell |  |

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| **OUTDOORS** |
| **Resource** |  | **Equipment** |  |
| Basic # feedback sheets |  | Staff name badge |  |
| Print out of lesson plan |  | Mini whiteboards and pens |  |
| River dip recording sheet |  | Safety rucksack plus whistle |  |
| Walkover survey instrs to teacher |  | General id guides |  |
| Walkover survey instr to children |  | Sit mats/blankets |  |
| Walkover survey blank map |  | Wellies and waterproofs |  |
| Walkover survey key |  | Chalk board and chalk |  |
| Walkover survey eg sketchmap |  | Duck whistles |  |
| Outdoor art instruc to teachers |  | Dictaphone? |  |
| Poem instructions to teacher |  | Pencils class set |  |
| Risk assessment |  | River dipping equipmentNetsTraysSpoonsId guide fish and invertsWater sample potWater testing kitClipboard PencilTablet?Microscopes?Big bug potsSmall bug potsMagnifiersGloves |  |
| Booking form |  |
| Photo treasure hunt list |  |
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|  |  | Walkover surveyOS mapTablet with OS map installed?Clipboards x10PencilsBinoculars |  |
|  |  | Photo treasure huntCamerasPencilClipboard x 3 |  |
|  |  | River poetryCamera with video and soundClipboards x 5Pencils |  |