

Teaching Resource for KS2



“Investigating Rivers”

The Parrett Catchment Project
Edited by Sam Woodhouse



Scheme of Work—‘Investigating Rivers’

An adaptation of the KS2 unit on rivers and water

About this unit:

This is an extended and adapted version of the QCA unit 14 “Investigating Rivers”

It incorporates material written by the River Parrett Catchment Project, which was designed as part of a longer unit of work - “What’s challenging the Parrett?” – an investigation into the environmental issue of flooding in Somerset .

During KS2, children are required as part of the National Curriculum to show knowledge, skills and understanding through the study of three major themes; the first is “Water, and its effects on landscapes and people, including the physical features of rivers (or coasts)”, and it is this aspect of the geography programmes of study which this unit addresses. (The third theme is “An environmental issue, caused by change in environment, and attempts to manage the environment sustainably”, and is the focus of the longer unit of work on the river Parrett as mentioned above). The Parrett Catchment materials therefore contribute to a large part of the geography curriculum for KS2.

There is a lot of existing planning material available on the “Rivers” theme:

- The original QCA unit 14 “Investigating Rivers” is still in use, www.standards.dfes.gov.uk/schemes2/geography and has been supplemented by:
- A new QCA unit “Water, water, everywhere!” which combines the geography unit with a science unit. Ref. www.qca.org.uk/8977.html
- The Geographical Association are soon (summer 2006) to be publishing the Superschemes unit “Investigating Rivers”. This will be an updated and extended version of the QCA unit. For information, please see the GA website www.geography.org
- Various geography texts and websites offer supporting material

Because of the quantity of existing planning material, this present scheme of work is offered here in outline only; for information about objectives, curriculum links etc, please see the QCA unit 14 “Investigating Rivers”

It is intended to be a flexible unit, to be used either as a medium-length or long unit according to need. It can be used:

- As a stand-alone unit which uses much the same structure as the QCA unit but extends the resources to include the newly available materials from the Parrett Catchment Project, and new ICT material.
- Or as preparation material for the ‘What’s challenging the Parrett?’ unit, which progresses the learning from description and understanding about the nature of rivers in general, to understanding about how rivers change and the hazards they may bring, with specific reference to one environmental area.
- “Section 3” offers further flexibility. A diversion can be made to continue with several sessions on the more general theme of “water”.

An adaptation of the KS2 units on rivers and water

| Sections | Key questions, and teaching activities | Cross curricular links Resources |
|----------|--|--|
| 1 | <p>“Where does water come from?”</p> <p>Refer to any previous work on the water cycle e.g: in science. Reinforce existing learning / or introduce new learning using activities. Use R2 to explain the water cycle</p> | <p>Cross-curricular links: Science—the water cycle</p> <p>Resources: R2 diagram of the water cycle South West Grid for Learning website: http://www.swgfl.org.uk/rivers/Water%20Cycle.htm</p> |
| 2 | <p>“Where does water go?”</p> <p>Activity: where does the rainwater go in our playground? Firstly predict where the water will collect; investigate the playground, mark likely area of puddles on a map. Why does the water collect there?</p> <ul style="list-style-type: none"> • Opportunity for further science work on evaporation—what happens to the puddles when the sun shines? Refer back to the water cycle work. • When it rains, where else can they see evidence of water movement? Look at roofs, drainpipes, drains. Where does the water go to from a drain? | <p>Cross-curricular links: Science—</p> <ul style="list-style-type: none"> • Large scale map of the school site e.g. using ‘Infomapper’ - a free mapping resource available in schools—for information and support contact Jeff Warlow, Education/ ICT. JMWarlow@somerset.gov.uk or www.multimap.com • QCA unit 11 “Water” www.standards.dfes.gov.uk/schemes2/geography • “Water, water, everywhere!” A new QCA unit combining geography and science. Ref. www.qca.org.uk/8977.html |
| 3,4 | <p>“Does everyone have as much water as we do?”</p> <p>This section is an opportunity to develop the theme of global patterns of water availability and use. Depending on individual planning, this may develop into or relate to a full unit on the theme of “water” as opposed to “rivers” - see resources opposite for some ideas. For a more time-limited introduction to the theme of water across the world, take 2 sessions to develop ideas eg:</p> <ul style="list-style-type: none"> • A short investigation about global patterns of water availability. Find out areas with high rainfall/ low rainfall/ where do we fit? Use R3 “How high is our rainfall?” • Patterns of water use—measuring how much we use etc. Various resources. • Wants and needs activity—in which of these activities is water essential? How would we cope if we didn’t have this amount of water? How DO people cope if they don’t have this amount of water? | <p>Cross-curricular links: Citizenship—</p> <ul style="list-style-type: none"> • R3 “How high is our rainfall?” • Oxfam “Water for all” on-line resource www.oxfam.org.uk/coolplanet/water/index.htm • Water Aid website www.wateraid.org.uk — look at the Learn Zone for teachers and pupils sections • Water Aid game “Pani the handpump”. Their website as above, learnzone, and games |

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| 5 | <p>To continue the theme of rivers... “Rivers we know and love—or hate”</p> <p>Ask the children what rivers they know—discuss experiences. Brainstorm what they feel about rivers, as well as what they know—what we like about rivers / what we don’t like / what would we like to do on a river.</p> <ul style="list-style-type: none"> • Look at a variety of photos on the white board illustrating all sorts of rivers in all sorts of moods. • Opportunity for literacy—creative writing either using story board, or using own experience or imagination, or selecting one of the photos as above—“a day out on the river”. Read stories about rivers. | <p>Cross-curricular links: Literacy—creative writing Stories about rivers</p> <p>Resources:</p> <ul style="list-style-type: none"> • GA (Geographical Association) Superscheme on rivers—available summer 2006—contains CD of river images www.geography.org.uk • River images from Google earth |
| 6 | <p>“What is a river and what does it do?”</p> <ul style="list-style-type: none"> • Use R4 for information • Use R5—photos of rivers in all stages; talk about the “ages” of rivers / features of rivers / river processes | <ul style="list-style-type: none"> • R4 “How rivers work” • R5 photos www.swgfl.org.uk/riversSimpleJourney.htm |
| 7,8,9 | <p>Fieldwork: Visit a river</p> <ul style="list-style-type: none"> • Which river are we going to visit/ where is it/ locate it on maps/ look at where it rises and where it meets the sea. Provide the children with a base map of the area and mark the source and mouth on the map, and point where they are going to visit. • Look at photographs of the river—what do the children think it will be like there? • Visit the river: do field sketches / measure the width, depth, rate of flow, look at processes or erosion and deposition, meanders. • Back in the classroom, draw sections, record the measurements | <ul style="list-style-type: none"> • Infomapper—maps and aerial photography • OS maps of the local river Various field study centres in Somerset are equipped to lead or help with river studies (see teachers notes for details). |
| 10 | <p>Individual research: Rivers of the World</p> <p>Each child or group select a river for study; using atlases, globes, the internet , etc. research it and find out information using the enquiry framework e.g. where is it / what is it like / how long is it / what happens around it i.e. landuse / what cities / settlements are around it / who lives around it / collect photos / what hazards might there be / write a descriptive piece re. a journey along the river. Produce a multi-media resource on “their” river, to tell the class about.</p> | <ul style="list-style-type: none"> • R6 and R7 provide extra material in the form of a crossword and word search. |

- QCA unit 14 “Investigating Rivers”: www.standards.dfes.gov.uk/schemes2/geography
- QCA unit “Water, water, everywhere”: www.qca.org.uk/8977.html
- The Geographical Association: www.geography.org
- The South West Grid for Learning: www.swgfl.org.uk
- Oxfam “Water for All”: www.oxfam.org.uk/coolplanet/water/index.htm
- Water Aid: www.wateraid.org.uk
- Curriculum online: www.curriculumonline.gov.uk
- The Met Office: www.metoffice.com
- The River Parrett Trail : www.riverparrett-trail.org.uk
- Somerset Wildlife Trust : www.somersetwildlife.org