

## ICT ACTIVITY 13

*How can ICT resources support children's understanding of rivers?*

**Year Group: Year 5**



GEOGRAPHY ICT

## Resources

Riverside Explorer CD (Environment Agency - Tel No.01454624400)  
This CD-ROM was sent free to all schools in England in 2001.  
digital camera, spreadsheets, Internet access.

## Context (Pupils' prior experience)

Pupils will have worked on rivers as a class topic. They will have some experience of computer based research, eg, CD-ROMs and the internet. They will have carried out some individual research at home. Some will have visited their local Library to collect information.

## Task Description

Pupils will be taken on a walk along part of the River Ravensbourne, in Beckenham Place Park, to collect visual information. They will be introduced to the Riverside Explorer CD-ROM using a projector. In small groups they will collect numerical data about the River Ravensbourne and use it to create graphs and charts in a spreadsheet programme. Pupils will carry out some general research about how rivers shape the land and river wildlife habitats. They will carry out a virtual river survey in a contrasting locality and compare results with the River Ravensbourne.

## Learning Intentions

GEOGRAPHY: Knowledge and Understanding	ICT: Skills, Knowledge and Understanding	ICT Level		
		KS1	KS2	KS3
Describe some river features. Talk about how people affect rivers, eg, pollution. Use maps and photographs to support understanding of local rivers.	Explore river features using a CD-ROM. With support enter numerical data into a spreadsheet and create a graph. Show an awareness of how ICT can be used to develop an understanding of rivers.	w/1	2/3	4/5
Make observations and ask questions about river features. Begin to understand how people can affect and change rivers. Use different sources of information to further ideas about rivers.	Search and select information about rivers using a CD-ROM. Collect numerical data, enter it into a spreadsheet and create a graph. Talk about how ICT can be used to develop knowledge and understanding of rivers.	1/2	<b>3/4</b>	5/6
Observe and discuss features of rivers, including human impact on rivers. Use diverse sources of information to carry out own research to extend ideas about rivers.	Investigate and interpret information about rivers using a CD-ROM. Discuss the relevance of the information to individual research. Show how ICT can be used to present and further ideas about rivers.	2/3	4/5	6/7
<b>Geography POS related to task:</b> 1a, 1b, 2b, 2f, 4b, 5a, 6c, 6e.	<b>ICT POS related to task:</b> 1a, 1b, 1c finding things out 2c developing ideas and making things happen e.g. river basin simulation			

## Teaching Approach

Whole class introduction to the Riverside explorer CD-ROM. Mixed ability groups/pairs to search for information and collect data on local rivers. Small groups/pairs to enter data into a spreadsheet and create graphs. Whole class discussion about carrying out computer based research.

## Links with other curriculum areas

**Science:** investigative skills, river habitats (plants and animals), the water cycle, pollution and conservation.

**Numeracy:** handling data and creating graphs

**Literacy:** writing reports and presenting information

## Subject Learning Gains (Geography)

The CD-ROM provided all the information needed for the activity and data was easy to access. Use of the Internet provided a vehicle for extension activity outside school hours, which widened pupils knowledge of rivers and prompted them to return to the classroom with many more questions about the topic.



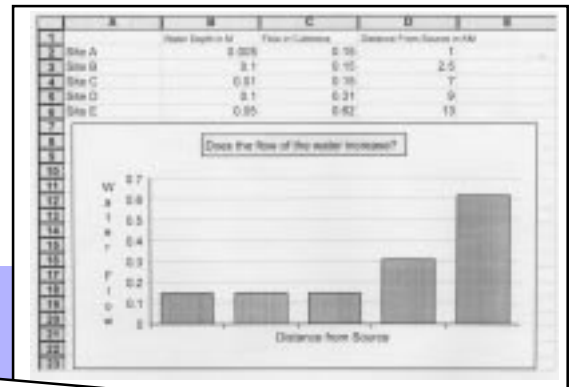
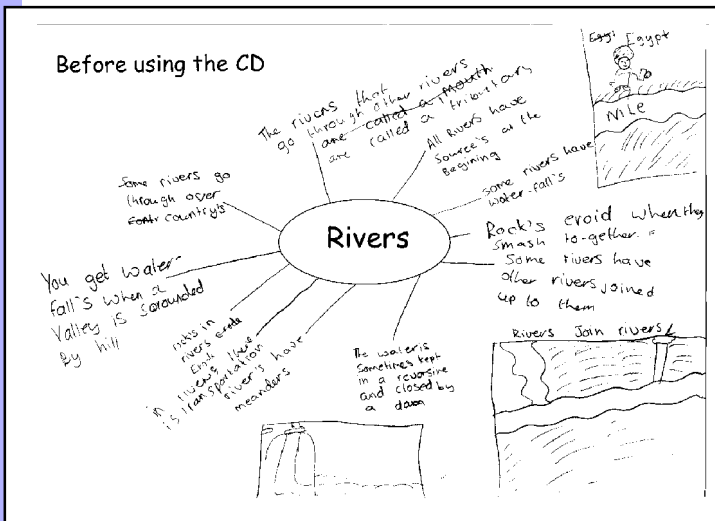
Pupils' Work



This pupil worked independently, researching information about rivers and responding appropriately.

She has reached ICT Level 3.

Teachers' Assessment



**Using Riverside Explorer CD**  
What can I learn about rivers?

What I want to find out about rivers...  
I want to find out how the river starts and how the water gets there. I want to know more about flood plain, valley, meander, spring, mouth, tributary and more.

What I have found out about rivers...  
A flood plain is a flat area of the valley.  
A valley is a long low area of land.  
A meander is a twisting and turning part of the river.  
A spring is a place where water comes from.  
A mouth is where it flows in lake or sea.  
A tributary is when the river flows in another river.

What I want to find out next time...  
Where the river ends?  
Where the river starts?

Pupils' Evaluation

Teachers' Evaluation

**ICT Teacher Evaluation**

Teacher \_\_\_\_\_ Date of Activity \_\_\_\_\_  
Class \_\_\_\_\_

**Teacher Confidence and Competence**  
What was your own level of ICT confidence before the activity?  
*I've used CD-Roms in a range of subject areas.*  
Do you feel you have gained in confidence and why?  
*Yes, as I've had time to work with the pupils to see how they respond by liaising with our ICT Co-ordinator*  
Do you feel able to teach the lesson yourself?  
*Yes*  
Is there anything you wished to have learnt but did not?  
*More time to explore different features of the CD with the whole class.*  
What would you do differently next time you carry out the task with a class?  
*Differentiate the data collection and provide more supportive crib sheets.*

**Pupils Confidence and Competence**  
Did the pupils learn what you expected?  
*Yes*  
Were there any unexpected learning outcomes?  
*The pupils were very enthusiastic and showed a better understanding of river features.*  
Did the pupil complete the task?  
*Yes - perhaps more time for extended research.*  
Was it a suitable task for the pupils age/abilities?  
*Yes.*

**Hardware and Software Issues**  
What hardware or software problems did you experience?  
*Setting up the projector - screen resolutions.*  
Would you like further training on how to use either of these?  
*If that is possible.*  
Were there any resources issues?  
*More CD Roms so that larger groups can access the information.*  
Are there any other comments?  
*Riverside Explorer enabled us to access detailed information about our local river.*