the outdoor classroom
the river crane

FORCE
Friends Of the River Crane Environment

Curriculum focus:
Geography

Keywords:
Rivers

Skills learnt in this worksheet include:
Observing and questioning
Collecting and recording evidence
Classifying, representing and interpreting data
Undertaking field work
Learning technical language related to rivers

Resources required for this activity:
Site maps showing rivers for Mereway Nature Park and Kneller Gardens or Crane Park.
Data Sheet to record research findings
Camera to take photos

The worksheet can be used to investigate the features of the River Crane and the Duke of Northumberland's River (DNR) in Kneller Gardens and Mereway Nature Park or the River Crane in Crane Park.
General information about the River Crane and DNR can be found in the Background information.

Further information and resources that could be used to support this topic include:

www.force.org.uk   Background information about the River Crane and the Work of FORCE, photos, background papers, newsletters Includes photographic images - A Close Eye on the Crane.

www.wildlondon.org.uk   Information about Crane Park Island Nature Reserve, habitats found in London and species found in London.

www.thegrid.org.uk/learning/geography/ks1-2/resources/

www.bbc.co.uk/schools/riversandcoasts/index.shtml

www.availablelight.tv/geography/geog.html Includes "Round the Bend" and "Meander Model" animations showing how river features are formed.

www.lgfl.net/lgfl/leas/haringey/web/teachers%20section/KS2/Geography/Staffroom/Unit%2014%20Investigating%20rivers/

Discussion and investigation on site.

This activity could be carried out at Kneller Gardens and Mereway Nature Park or in the classroom area in Crane Park.
Note. Access to the River Crane at Mereway Nature Park is limited due to the thick scrub and can only be viewed from the road bridge. There is good access to the Duke of Northumberland's River.
At the classroom site in Crane Park there is both a river channel and a smaller manmade millstream. The characters of these channels are different.

Discuss the following points and record any findings by taking photos.

On your data sheet record the following information:

- Where does the River Crane come from?
- The River Crane is a tributary of which other river?

Mark the following features on the map (these key words might help):

> river banks
> tributary
> weir
> bridge
> erosion
> deposited material
> meander

- Directions of flow of the rivers.

- River channels including name.

- Are the river banks natural?

- Mark on the map the different types of river channel and banks.

- Mark on a map where the river runs smoothly and where it is turbulent. Why is this? Write your answer on the summary sheet.

- Look carefully at the banks fo the river. Can you find any evidence of the river eroding, transporting or depositing material. Mark it on a map.
  Think of reasons why this might be so and write them on a summary sheet.

- On a map mark any river meanders or other river features that you find.
  Think of reasons why they are there and write them on a summary sheet .

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- How have people influenced the river?
  Look for weirs, channels, bridges any other man made features. Show these on your map. Why have these features been built?

- In Crane Park note the difference between the millstream and the main channel. At Mereway note the difference between the Duke of Northumberlands River and the Crane.

On a datasheet:

- Estimate the width and depth of the river.
  The bridges can be used to take these measurements.

- Estimate the speed of flow of the river.
  For details on how to find the flow rate of a river, and sample worksheets see:
  www.snh.org.uk/teachingspace/whattodo/freshwater/Stream_Challenge.asp

- What can you see on the bed of the river – pebbles, sand, mud, weed?

- How clear is the water?

- Are there any weeds?

- Are there any visible signs of pollution?

- What colour is the water?

- Is there any sign of scum, or oil?

- Is there any dumped rubbish?

The data collected can be collated using a database or graphing program. The data could be used to:

- Create a web page/site for a locality studied.

- Create a presentation about the local area.

- Data in the database could be used to find answers to questions when writing up projects.