

the outdoor classroom

river channels crane park



Curriculum focus:
Geography

Keywords:
Rivers, maps, industry, water power, science, local history, land use, literacy

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
Investigating the local area
Historical research
Developing an argument

Resources required for this activity:
Base map
Newspaper layout sheet.
Historic map 1896 of Mereway

Further information and resources that could be used to support this topic can be found at:
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,
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/
www.thameswater.co.uk Thames Water tools for schools

Information on hydro power can be found at:
www.learn-energy.net/kidscorner/en/u11/water.html
www.alternative-energy-news.info/technology/hydro/
www.eia.doe.gov/kids/energy.cfm?page=hydropower_home-basics
www.british-history.ac.uk/report.aspx?compid=22290

Further information about mills in the Twickenham area:
www.richmond.gov.uk/local_history_river_crane.pdf
www.twickenham-museum.org.uk/detail.asp?ContentID=256

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Discussion and investigation on site

Look carefully at the two channels at several points.

Discuss the following:

- What are the differences in the appearance of the two river channels?
- Why do you think that these differences occur?

Record any findings on your data sheet and your map.

You could include differences in width, depth etc., differences in the flow rates of the stream and river, whether there are obstructions in channel, what you can see on the bottom of the stream.

- Are there any man-made alterations to the channels? Mark these on your map or data sheet.

Consider the toe boards along the river banks and the concrete channel at the bridge over the millstream.

The main channel has had work to remove trees from the banks to let in more light. Wooden toe boards have been removed from the banks.

- Discuss why this has been done.
- What are the benefits to the river and the plants and animals that can be found here?

The millstream is not a natural channel, but was dug in the 18th century to provide power to the mill downstream.

Further information on the mills on the river Crane can be found in the work sheet on the Duke of Northumberland's River. Also see the Factsheet from the Richmond Local Studies Library www.richmond.gov.uk/local_history_river_crane.pdf

Discuss how you would go about building a new river.

- What tools would you have in the 18th Century?
- Who did the building work?

Discuss natural sources of energy.

- Why was it necessary to build a new river?
- What would the benefits be?
- Who would benefit?

Write a newspaper article about your findings, include pictures and photographs and your map.