

Osney Lock Hydro

Name:

Date:

Class:



Starter:

Discuss how rivers and waterways have played a part in the naming of towns, cities, and settlements. Ask children how many British towns or cities they can think of where their names have been influenced by the rivers that run through them?

Main activity:

PP presentation – Osney Lock Hydro. Using slides, key questions, activities and video clips to elicit plenty of discussion, introduce the story of OLH as an example on a community renewable energy scheme.

Plenaries and assessment:

Use worksheet activities and review as a class on the board/screen (slides 7, 14 & 22) to consolidate learning.

Assessment for Learning:

Use questions in presentation for formative assessment. Worksheet activities reinforce this and provide a tool to assess understanding and provide a record of AFL.

Success criteria:

Children will understand the inspiration, planning and collaboration behind Osney Lock Hydro and will be able to identify several advantages of such a scheme to the community and environment.

Differentiation:

Involve all children in discussion using differentiated questioning - colour coded in delivery guide **All Most Some**. Where possible use visual aids to aid understanding. Video clips can also help with this.

Further information about self-guided and guided tours of Osney Lock Hydro is available at www.osneylockhydro.org.uk

Programme of study:

Energy, electricity, renewable energy and sustainability. This may be linked to a trip to Osney Lock Hydro.

Key learning objectives, students should:

- Be able to identify reasons for Osney island's suitability for a run of river hydro schemes
- Understand what it means to have a share in a project like OLH
- Be able to identify and explain ways in which the OLH scheme benefits to the community

Cross curricular links:

Geography – rivers, reservoirs, dams, social sustainability, climate change

Science – energy, electricity, biodiversity, river ecosystems

Maths – Archimedean screw, mechanical construction

English - vocabulary, discussion and debate, poetry

Design and Technology – mechanical energy, turbines, designing, planning and construction

History – Industrialisation, electrification

SEAL/PHSE – Access to renewable energy, encouraging biodiversity and improving environments

Key vocabulary:

Sustainability, renewable energy, power station, climate change, hydropower, run of river, turbine, generator, weir, lock, Archimedean screw, community, shareholder, solar array, photovoltaic, wind turbines, geothermal

Resources:

PPT presentation
Embedded video clips
Detailed delivery guide
Worksheet and answers

Further suggestions for resources that may aid learning and understanding can be found in the detailed Delivery Guide

