

LKS2 & UKS2 – Electricity (Energy Island)

Learning Objectives

- ☉ Learn about how electricity is made at Howsham Mill.
- ☉ To recognise different forms of energy that can be made and stored.

Activities

- ☉ Tour of the Mill
- ☉ Making Water wheels
- ☉ Energy games

What will happen on your visit?

- ☉ Children will have the opportunity to learn about the water wheel and Archimedean screw turbine at Howsham Mill.
- ☉ Children will be given the opportunity to make a water wheel model in groups and test them using different water speeds.
- ☉ Children will have the opportunity to learn about other types of energy and how they are made and stored.
- ☉ Children will have the opportunity to learn about the differences between fossil fuels and renewable energy.



Before your Visit

- 🌐 Introduce children to the concept of Renewable Energy (Wind, Solar, Hydro and Biomass)
 - <http://www.childrensuniversity.manchester.ac.uk/interactives/science/energy/renewable/>
 - <http://www.ourplanet.org.uk/>
 - http://www.bbc.co.uk/schools/gcsebitesize/geography/energy_resources/energy_rev1.shtml (For your own subject knowledge)
- 🌐 Look at the origins of an Archimedean Screw
 - <http://kids.britannica.com/comptons/art-144462/In-Archimedes-screw-water-or-any-other-liquid-is-carried>
 - <https://www.tes.co.uk/ARTICLE.aspx?storycode=2131266>
- 🌐 Look at water wheels and what else you can use them for
- 🌐 Look at other sources of energy (Heat (thermal), Light (radiant), Motion (kinetic), Electrical, Chemical, Nuclear energy, Gravitational)

After your Visit

- 🌐 Look at designing an environmentally friendly school/home (Cross-curricula with Design & Technology)
 - <http://www.eco-schools.org.uk/freeresources>
 - www.climateweek.com
 - <http://old.solar-aid.org/sunnyschools/blog/Eco-house%20unit.pdf>
- 🌐 Children should have the opportunity to make an Archimedean Screw.
 - watch this youtube link - <https://www.youtube.com/watch?v=UXpq4whPoGU>
 - You will need plastic bottles and card.
 - As an alternative, they could make Archimedean screws using piping and plastic tubing – however, this could prove quite expensive. (<https://explorable.com/archimedes-screw>).