

ESO Presentation

Name:

Date:

Class:



Starter:

Agree or disagree. Ask learners to rate the statements on the slide in terms of level of agreement. Use justifications to gauge understanding.

Main activity:

PP presentation—ESO case study. Using slides, key questions and video clips to elicit plenty of discussion, introduce Energy Superhub Oxford and the plans for decarbonisation transport, power and heat.

AFL:

Use questions in presentation for formative assessment. Starter/plenary activities consolidate learning and provide opportunities to assess understanding. This lesson links to the Case Study lesson with attached worksheet and activities.

Success criteria:

Learners will have a good understanding of the motivation Energy Superhub Oxford and its key aims. They will be able to explain the three areas of specific focus and should be able to outline how each part of the project is being implemented.

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.

To get involved, please go to <https://energysuperhuboxford.org/get-involved/>

Program of study:

Challenges in the human environment. The challenge of resource management: Energy.

Key learning objectives, students should:

- Understand the need for decarbonisation
- Be able to link OCC's target for Net Zero by 2040 with the plans for Energy Superhub Oxford
- Be familiar with Government strategies and targets
- Be able to identify strategies and actions that are being implemented in transport, power and heat

Cross curricular links:

Science – climate change, energy and electricity, renewable energy, batteries and energy storage

Maths – economic sustainability, statistics

English – persuasive writing, discussion and debate

Design and Technology – engineering, systems, sustainable design and energy use

History – industrial revolution, historical context

Art and Design – recording & informing through imagery

SEAL/PHSE – healthcare, education, social issues, climate change, political movements and campaign

Key vocabulary:

Sustainability, climate change, climate emergency, natural systems, global warming CO₂, ecosystems, legislation, Net Zero, emissions, citizens' assembly, fossil fuels, renewable energy, decarbonisation, efficiency, ICE, EV, GSHP, infrastructure, hybrid, megawatts, Lithium-ion, vanadium redox flow system, intermittent generation, peak demand, algorithm

Resources:

PDF presentation

Embedded video clips

Detailed delivery guide

Worksheet and activities

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