



Lesson: Energy



ACTIVITY OUTLINE



Students discuss the costs of running a household.

They then apply functional Maths skills to calculate the annual bills of a household (worksheets on slides – support, standard and extension versions).

Students suggest possible changes that a household could make to reduce bills, in particular cutting energy and water use.

They are then introduced to another way to calculate savings, in terms of carbon emissions, and they calculate carbon emissions savings from renewable energy vs energy provided from a coal-fired power station.

They then calculate the difference that different energy savings actions would make to a household
Worksheets on slides: Support, Standard, Extension versions with a Further Extension / Class Discussion slide on the difference that these actions could make if scaled up across the locality / country / world.

Students then consider the carbon footprints of different countries and come up with their own energy saving tips.

A homework sheet is provided for students to calculate and discuss possible actions and energy savings at home.



CURRICULUM OUTCOMES



Students will:

Apply functional Maths skills to make calculations in real life contexts



Lesson: Energy



GLOBAL LEARNING OUTCOMES



CLIMATE
ACTION



Students understand that generally higher income countries have much higher greenhouse gas emissions than lower income countries

Students can describe practical things people can do, individually or collectively, to reduce greenhouse gas emissions

SMSC/ British Values - Understanding of the consequences of our behaviour and actions.

Action



It's not just at home that you can reduce greenhouse gas emissions significantly by switching to renewable energy.

Does your school generate any of its own electricity? Does it have solar panels? Schools use a lot of energy, so when a school switches to solar, it can have a big impact, both in money and carbon savings.

Why not head to the Solar for Schools website to see how much carbon and money you could save at your school? Solar for Schools is a not-for-profit Community Benefit Society with the schools as society members, so the installation does not cost anything to the school. Students can be involved in the design and planning of the solar arrays and there are lots of further educational opportunities alongside the installation.

<https://www.solarforschools.co.uk/gb/en/>



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