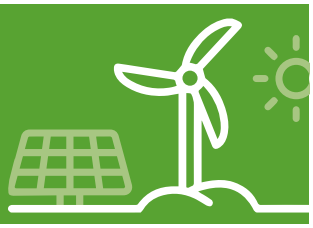
Cyfoeth Naturiol Cymru
Natural Resources Wales

Activity plan



Why is energy important?

Time needed for activity

20 minutes

Location

Outdoors or indoors

Context

This activity focuses on how human lifestyles depend on energy production which, in turn impacts the climate.

Natural Resources Wales' purpose is to pursue the sustainable management of natural resources in all of its work. This means looking after air, land, water, wildlife, plants and soil to improve Wales' well-being, and provide a better future for everyone.

Curriculum for Wales

Humanities	Language and Literacy	Science and Technology	Health and Well-being
• **What matters** – Informed, self-aware citizens engage with the challenges and opportunities that face humanity and are able to take considered and ethical action. • **What matters** – Our natural world is diverse and dynamic, influenced by processes and human actions.	• **What matters** – Understanding languages is key to understanding the world around us. • **What matters** – Expressing ourselves through languages is key to communication.	• **What matters** – Being curious and searching for answers is essential to understanding and predicting phenomena.	• **What matters** – Our decision-making impacts on the quality of our lives and the lives of others.

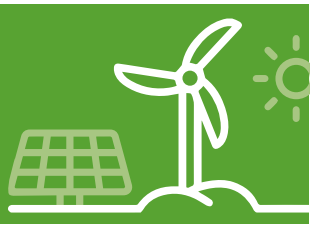
Objectives

Learners will be able to:

- use a systematic approach to detail their daily energy use.
- explore where the energy they use in their daily activities, comes from.
- pinpoint and discuss some of the ways they rely on the use of energy on an average day.
- consider whether their energy needs are vital to life, useful or a luxury, to support their understanding of ways to reduce their energy use.

Resources and equipment

- Information note – Energy
- Writing materials



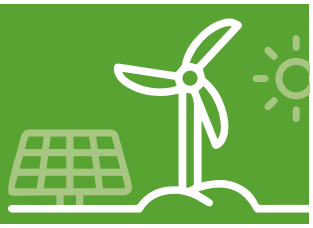
What to do

This activity works best following on from our sustainable development glossary game, where some of the relevant terminology is discussed.

- Begin the activity by asking your learners what kinds of energy they use in their homes and day to day lives. It is very likely that they will go directly to electric or gas energy but encourage them to think more broadly. Different types of energy include light energy, heat energy, mechanical energy, gravitational energy, electrical energy, sound energy, chemical energy, nuclear or atomic energy. Use the **Information note – Energy**, to fill in gaps and explain further.
- Divide your group into pairs or small groups and ask them to work together to compile and write down a list of all the items that they use day to day that are powered by electrical energy. For example: fridge, technological devices, etc. Encourage them to think through an average day, from getting up in the morning to going to bed at night. How many electrical appliances and services do they use? This could be completed in a table format – example below:

Time	Activity	Energy Use
7am	Getting up	Alarm on mobile phone, switch light on.
7.10am	Freshening up	Electric shower, central heating towel rail, bathroom light, electric toothbrush.
7.30am	Breakfast	Boil kettle, grill for toast, milk from fridge, check social media on mobile device, put dishes in dishwasher.

- Provide the scenario that the energy supply to the local area is about to be severely reduced – this could be a new initiative to help fight climate change.
- Ask your learners to draw three columns on a clean piece of paper and to head these columns as vital to life, useful to have and luxury.
- Task your learners with going through their energy use lists, carefully considering and discussing as they go. Ask them to place their items under these headings.
- Your learners need to persuade and reason to reach an agreed consensus.
- They need to consider the importance of each item in sustaining a healthy life.
- Is there something they could do differently to reduce energy use. For example, does the fridge have to be super cold? Could they get dressed without the light on? Less time on online chat and more time outside meeting friends?
- Ask your learners to rank the items in each column in order of importance.
- Discuss the choices and reasoning behind them. How similar or different are each pair/groups decisions? Which items were considered as the most vital to life and which were considered the least important? Why?
- As the activity draws to a close ask your learners how do they, or could they, save energy at home and elsewhere? Why it is important to do this? What barriers sometimes get in the way of saving energy? In Wales, what cultural or geographical differences might have an impact? For example, would a rural household use the same amount of energy as an urban household? What difference does family size make? What if a member of the household relies on medical equipment that needs electricity? Discuss their ideas.



Suggested key questions

- What types of energy do you use at home?
- How is this energy made?
- What electrical item is used the most often by you and by your family?
- Are there any electrical household items which help you live a healthy lifestyle?
- What do we mean by vital/luxury/useful?
- Why have you decided to put them into the certain categories?
- What could you do instead if you did not have xxx item?

Adapting for different needs or abilities

More support

- Provide a list of daily use electrical items.
- Complete the activity as a whole group.

More challenge

- Learners can work independently.
- List ways to save energy and rank them by biggest to smallest impact.

Follow up activity/extension

Try out our:

- Activity plan – Renewable energy investigators
- Activity plan – Carbon storage calculator
- Activity plan – Peatlands, carbon and climate change
- Go on a site visit to a local energy production site.

Additional Information

Find out more about Natural Resources Wales' work to address climate change at www.naturalresourceswales.gov.uk

Natural Resources Wales/Climate change

Looking for more learning resources, information and data?

Please contact: **education@naturalresourceswales.gov.uk** or go to **https://naturalresources.wales/learning**

Alternative format; large print or another language, please contact: **enquiries@naturalresourceswales.gov.uk 0300 065 3000**