

Energy Theme: Title: Previous themes links to Energy

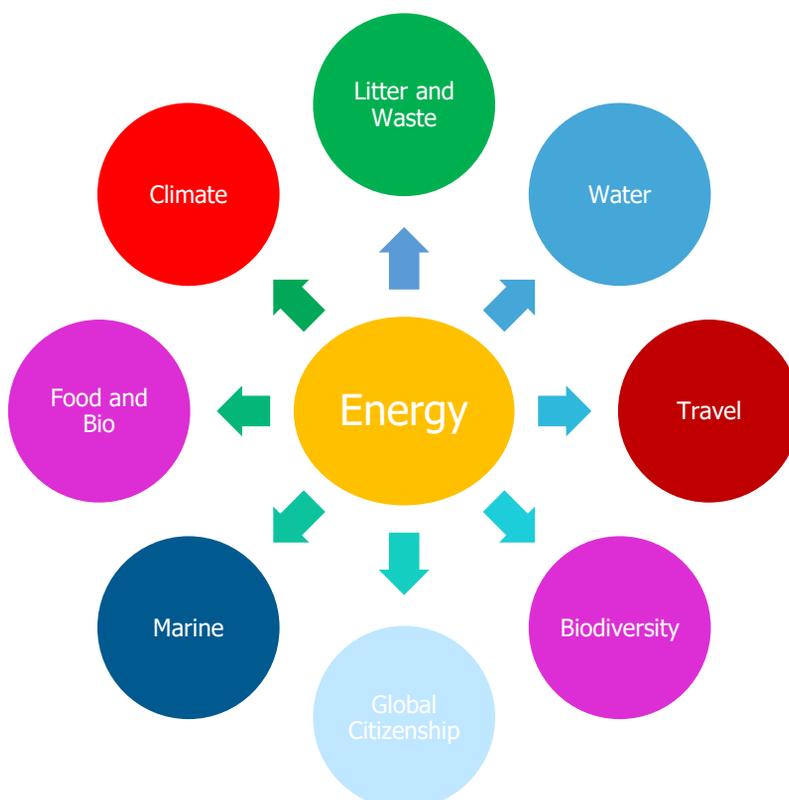
*Suitable for All
Students*



Energy as a theme, is not one to be taken in isolation, it links with all of your previous green schools themes, and even your future green schools themes.

There is a hidden energy costs in most things, we can see this in the other themes in the green schools programme. For example when looking at litter and waste, we explore topics like packaging, recycling, fast fashion, and many other topics, that have a direct link to energy. A good example of this is the energy cost involved in producing new plastic bottles versus recycling them. The estimated cost in terms of energy to produce a new plastic bottle is 2000 times more than recycling them. Why is this important?

If we as an energy theme school, take actions related to our previous themes, or even future themes, we're adding actions to our action plan on energy. When applying for the energy theme flag, we are asked to provide evidence of maintenance on previous themes. This document will help identify how those actions can and do relate to directly to the energy theme itself.



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Litter & Waste and Energy:

- Waste to Energy facilities turn non-recyclable litter and waste into electricity and heat, reducing landfill dependency while providing power.
- When we properly manage our waste and recycle we save energy; for instance, recycling aluminium saves enough power to run a TV for three hours.
- Litter has a negative effect on the environment and takes a long time to break down in particular plastics, improper disposal of items like plastics (often made from oil) use up significant energy and contribute to pollution.
- Waste food and Agricultural byproducts, such as poultry litter, can be used as fuel for producing electricity and biofuels. The Circular Economy is a term you may have heard recently.
- A circular economy is a new old way of transforming waste into usable energy and reducing the need for new materials.

Energy and Water:

- Energy and Water are deeply interdependent. Water is required for energy production (cooling, fuel extraction, hydro) and energy is needed to treat, transport, and distribute water.
- Roughly 10% of global freshwater is used by the energy sector, while 10% of global emissions relate to water management.
- Power plants (nuclear, coal, gas) use large volumes of water for cooling.
- Hydropower directly uses water to generate electricity. Water is also needed for biofuel cultivation and extracting fossil fuels.
- Tremendous energy is required to extract, pump, treat, and transport water for human consumption, agriculture, and industry.

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Travel and Energy:

- Transportation, heavily reliant on fossil fuels, accounts for roughly 25% of global energy consumption. In Ireland the transport sectors energy demand accounts for 42% of consumption and emissions. We are heavily reliant on fossil fuels like petrol and diesel powered vehicles.
- We can travel smart by increasing our active travel (walking, cycling), increasing electric vehicle use to lower emissions, and reducing aviation frequency to minimize carbon footprints.
- Sustainable travel focuses on energy-efficient transport, accommodation choices, and mindful, low-carbon journeys.

Energy And Biodiversity:

- Energy production is closely linked to biodiversity, with fossil fuels driving habitat destruction and climate change, while renewable infrastructure (wind, solar) can cause localized impacts like habitat fragmentation and species displacement.
- We do know climate change, is driven by energy emissions, and it is a major driver of biodiversity loss, with global native species populations falling by at least 20% since 1900.
- The challenge lies in expanding green energy while adopting "nature-positive" approaches that restore ecosystems, such as enhancing biodiversity on wind farm sites.
- Windfarms – like Mount Locus in Offaly have integrated nature restoration with wind energy. Wind farms have a small ground footprint and offer opportunities to enhance biodiversity through better land management.
- Many Energy companies – take on projects to restore nature, plant trees, re-wet bogs, and add habitats to buildings...such as bird boxes, bat boxes, ponds....

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Energy Related Actions

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Litter and Waste actions:

- Litter pick – like the national spring clean
- bring back campaign
- cloths swap
- go plastic free actions
- upcycling /recycling - related activities

Water actions:

- Water butts
- water harvesting
- leak detection

Travel actions:

- walk to school days
- cycle to school days
- scoot to school days

Biodiversity actions:

- Grow your own projects
- food miles
- food waste
- buy local

Marine actions:

- #2MinuteBeachClean
- think before you flush
- plastic free
- adopt A beach

Global citizenship actions:

- think global act local
- learn about the global goals
- learn about global connections- where does your food, clothes, goods Come from