

Your Community Your Environment

Guide to Protecting and Enhancing your Local Environment





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This booklet is designed to support raising awareness and understanding of monitoring, managing, and enhancing local environments while providing an insight into the ecosystem services our natural world provides.

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Ecosystem Services

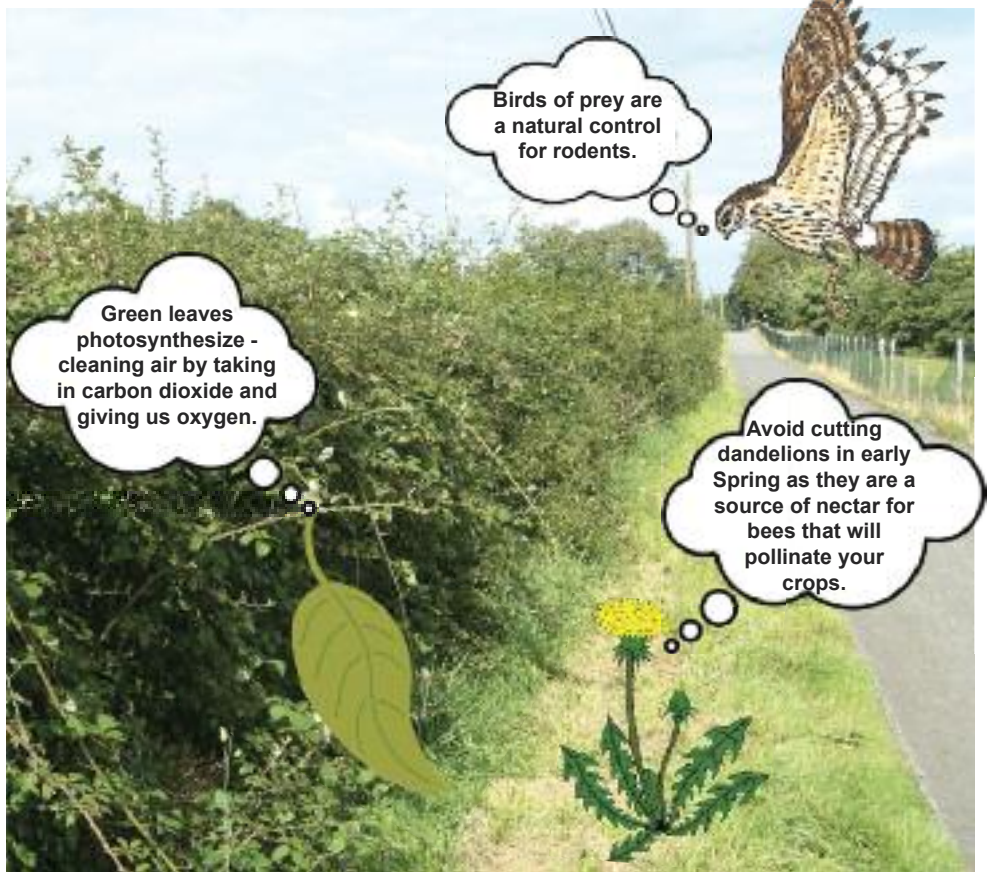
Our local environment can be described as an ecosystem, a community of living organisms interacting with their non living physical environment (air, water and soil). Your local ecosystem provides many benefits to your community and collectively these benefits are known as ecosystem services. These services include clean water and air, the decomposition of waste, the production of food and amenity resources for your local community. Ecosystem services have four broad categories including:

- * Supporting services
- * Provisioning services
- * Regulating services
- * Cultural services

Natural capital is the term used to describe the monetary value these services have.

A conservative estimate in 2008 found Ireland's natural capital to be worth at least €2.6bn per year

Source: Bullock et al, 2008 from www.naturalcapitalireland.com



Provisioning

Provisioning services include products that are obtained from ecosystems for example: food, raw materials, genetic resources, water, minerals and energy.



Supporting

Supporting services are those necessary for the production of other ecosystem services for example nutrient cycling, biodiversity and soil formation.



Cultural

Cultural services are the non material benefits people obtain from ecosystems through spiritual enrichment, cognitive development, reflection and recreation.



Regulating

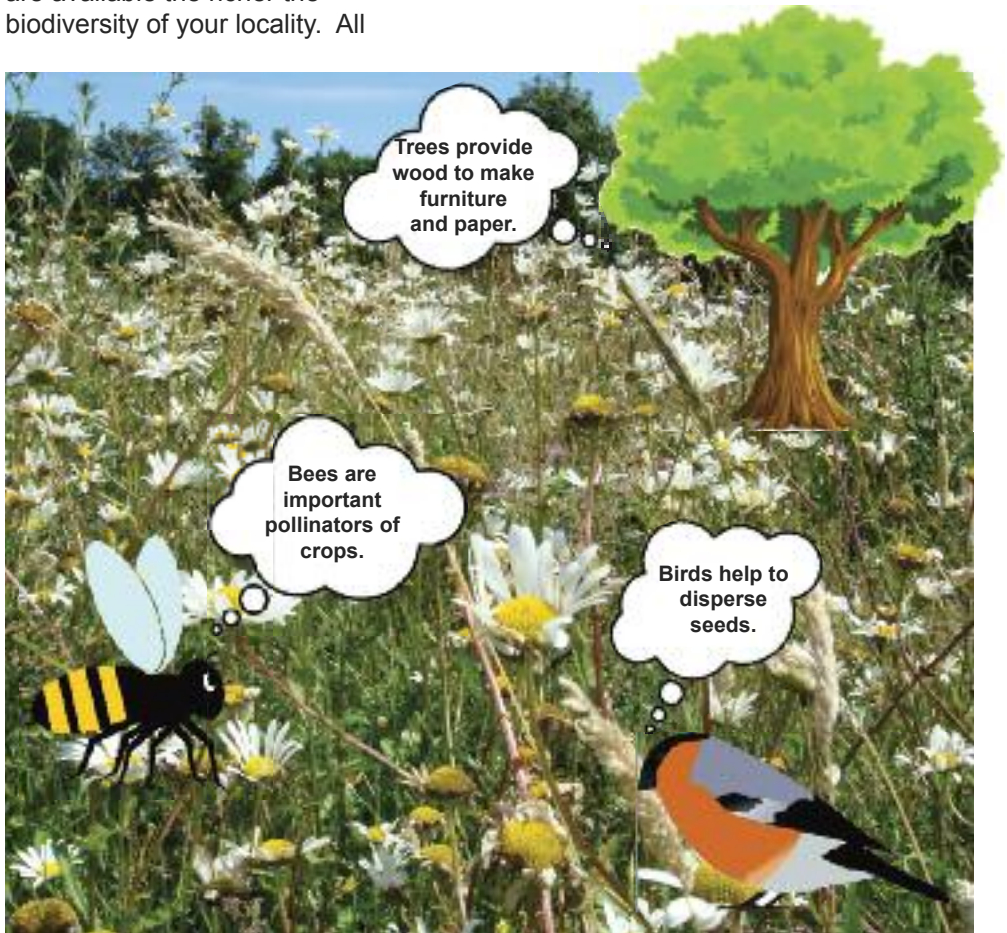
Regulating services are benefits obtained from the regulation of ecosystem processes for example carbon storage, climate regulation, purification of water and air, pest and disease control.



Biodiversity

Biodiversity is the variety of plant and animal life in the world and the habitat in which they occur. It includes a beetle in your garden to the largest whale off the Irish coastline. Don't forget we are also part of Ireland's biodiversity! Habitats are homes for plants and animals. They can vary in size. For example an oak tree's habitat may be a woodland, however, a nesting bird may use a crevice in the oak tree to build its nest. The more habitats that are available the richer the biodiversity of your locality. All

biodiversity is important no matter how big or small as they boost our local ecosystem productivity. Ireland's biodiversity is under stress for reasons including habitat loss, climate change and invasive species. Community actions including monitoring of biodiversity and creating habitats can support Ireland's biodiversity.



Top Tips for Attracting Wildlife

Plants and animals require both food and shelter. Attracting wildlife to your community is about creating habitats and providing food sources. But before you start ask yourself; Does your community need to do anything? Sometimes our local habitats and biodiversity are perfect as they are and we just need to be aware and enjoy them. If you decide that your local biodiversity needs a helping hand always seek advice or permission from your local authority or wildlife ranger.

Creating Habitats

There are lots of ways you can create habitats for wildlife. Some ideas may be a pond, log pile, insect hotel or put in place bug boxes, bat boxes or bird boxes. Remember you may have these habitats naturally in your community. Mature trees are perfect nesting and roosting spaces for bats and birds, while a natural wetland is perfect for aquatic biodiversity.

Planting with Wildlife in Mind

Choose to plant native species such as holly or hawthorn in your community as these provide berries

for birds in the Autumn and a nesting habitat for them in Spring. Plant species that will produce nectar for bees and butterflies such as wild lilac, foxglove and witch hazel. Plant sunflowers as they will produce a vibrant colour in your community and they will also be a great source of seeds for birds in the Winter.

Choosing Chemical Free

The use of chemicals around your community can have a negative impact on biodiversity. Use mulch to suppress weeds in flower beds rather than using herbicides. Attract birds and other carnivores to feed on slugs and snails. Make your own nutrient rich liquid feed using comfrey.

Always Choose Peat Free

The wild bogs of Ireland are harvested annually for producing a peat moss compost for gardeners. Support the protection of peatlands and manage your waste by composting at home and in your community.



Invasive Species

More and more people are becoming aware of species of plant and animal that are not native (introduced species) to our communities. Those non native species which have a tendency to spread to a degree believed to cause damage to the environment, human economy or human health are referred to as invasive species. Many of these plants and animals were introduced for ornamental purposes, for economic reasons and some were unintentionally introduced. Some well known examples of invasive species include:

- * Grey Squirrel
- * New Zealand Flatworm
- * Honey Bee *Varroa* mite
- * Japanese Knotweed
- * *Rhododendron ponticum*

In 2013 the National Biodiversity Data Centre had recorded 377 non native species in Ireland. In terms of priority a risk assessment identified 48 of these non-native species as of having a high impact and a further 78 species as having a medium impact on local communities. Terrestrial invasive species the brown rat, New Zealand flatworm and grey squirrel are all on the most unwanted

species list.

'Today invasive species are considered the second biggest threat to biodiversity after habitat destruction'

Invasive Species Ireland
www.invasivespeciesireland.com

What To Do?

It is important to be aware that if you come across an invasive species you should not disturb it in any way. Often our good intentions can lead to further spread of the invasive species.

Step 1: Record where you have identified the invasive species and if available take a photograph.

Step 2: Report the invasive species to your local authority or online to the National Biodiversity Centre www.biodiversityireland.ie or Invasive Species Ireland www.invasivespeciesireland.com.

Step 3: Monitor the invasive species in your local area by mapping its locations and taking photographs through the seasons.



Local Biodiversity Survey

Undertaking a biodiversity survey will help you become more aware of the variety of habitats and species present in your locality. Your biodiversity survey will help you to plan for the future. Use the following headings to lay out a written report for your area:

- * Introduction - include local history, location of the habitats identified and a map.
- * Methods - explain how you carried out the survey and any research that you did.
- * Results should include a habitat and species list.
- * Discussion/Actions - what you plan to do to monitor and enhance local biodiversity.



Identifying Local Habitats

Freshwater Habitats

- River
- Stream
- Pond/lake
- Wet roadside verge
- Flooded field
- Other:
- Canal
- Peatland
- Ditch/drain

Stone Habitats

- Stonewall
- Bridge
- Breeze block wall
- Other:
- Graveyard
- Old building

Tree & Woodland Habitats

- Tree
- Hedge
- Shrubby border
- Rotting wood
- Other:
- Woods
- Plantation

Grassland Habitats

- Roadside verge
- Managed grassland
- Agricultural grassland
- Wildflower area
- Pathway
- Meadow
- Other:

Coastal Habitats

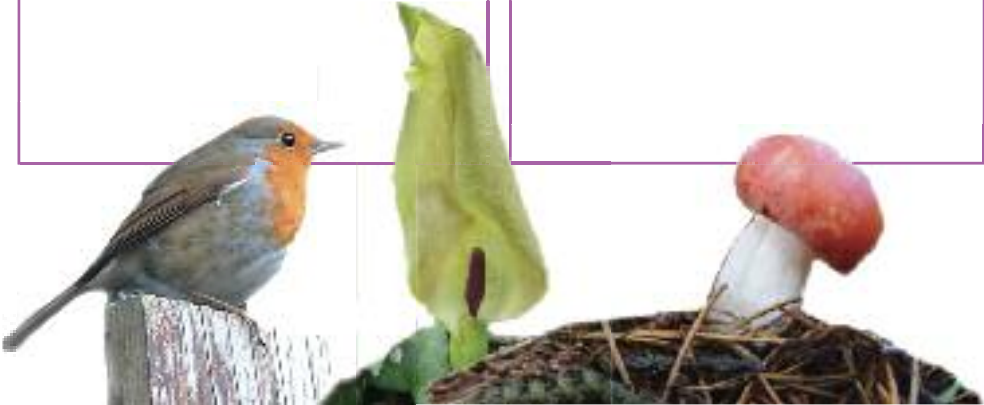
- Sandy beach
- Rocky shore
- Shingle beach
- Saltmarsh
- Harbour
- Coastal grassland
- Brackish water body
- Estuary/inlet
- Other:
- Mudflats
- Sand dune
- Salt water



Plant and Animal Species Identified in Our Community

Plants

Animals



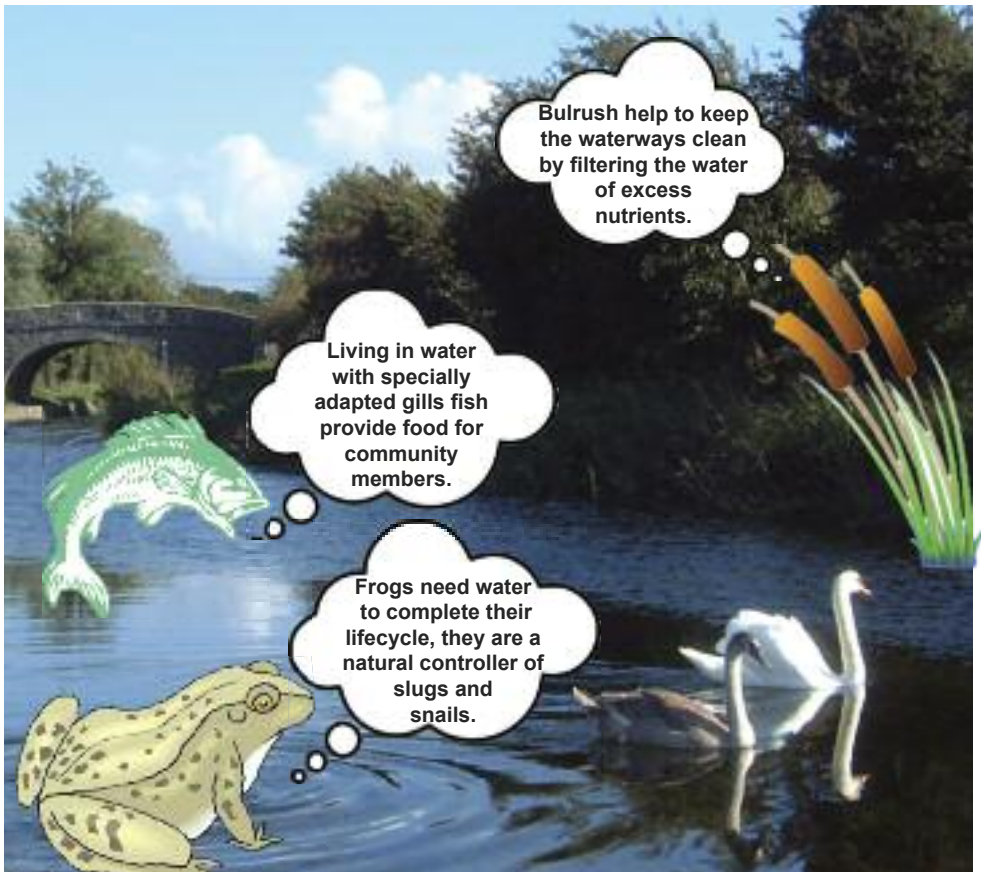
Water

We have the same amount of water on this planet as we did at the beginning of time. Over 70% of the world's surface is covered in water and water is essential for all life. Although 70% of the world's surface is covered in water, 97% of this water is salt water, 2% is stored as ice and this leaves only 1% as freshwater that we can use. Today water is precious and this is not because the levels of water have changed but rather consumption has increased over time. Water allows crops to grow providing food, it is an amenity

resource, it is important for our hygiene as well as a transport network and most importantly none of us could survive without it. Ensuring we have a clean and a healthy water supply is essential.

The average person in Ireland uses 150 litres of water each day. With 4,713,993 million people in Ireland our demand for clean water each day can be as much as 707 million litres.

www.taptips.ie



Ways to Conserve Water

Use a Watering Can

A hosepipe will use 1,000 litres of water per hour. Water your hanging baskets and flower beds using a watering can.

Install a Water Butt

Think about all the water you use to wash your car, water flower beds and hanging baskets. A water butt attached to a drain pipe will help you reduce the amount of water used for these tasks.

Fix Dripping Taps

Over 15 litres of water can be wasted per day from a dripping tap. This can lead to over 5,500 litres of water per year being wasted. Ensure to fix all dripping taps once identified.

Fit Flow Restrictors

An average tap can deliver 20 litres of water per minute. A flow restrictor can reduce flow and save water.

Turn It Off

Turning off taps while brushing your teeth can save 6 litres of water.

Recycle Vegetable Water

The water used to cook your vegetables is full of nutrients. Allowing it to cool and using it as a liquid feed for your vegetables or flowers will help them to thrive.

Reduce Water Holding Capacity in Your Cistern

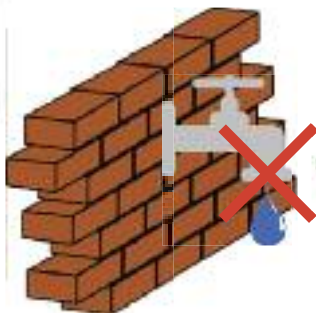
Placing a one or two litre plastic bottle in your toilet cistern saves 1-2 litres of water every time you flush the toilet.

Use Mulch

Mulching flower beds and vegetable patches helps to lock moisture into the soil. This means that during the day when evaporation from the surface is at its peak water will be evaporated from the mulch leaving the soil that your plants are rooted in damp. You can make your own mulch using Autumn leaves.

Quick Tips

Always put full loads of washing on when washing clothes and learn more top water saving tips by visiting www.taptips.ie



Composting

The very first step in creating a garden is a healthy soil. To help plants grow strong you need to add organic matter. But before you add it to the soil, it needs to rot a little. You can help organic matter to rot by composting. Composting is the process where we store garden waste and certain kitchen food scraps in a heap, a bin or even a homemade unit. Over a period of approximately 2 years your waste will be broken down by an army of natural decomposers, such as soil bacteria and earthworms producing a fertile nutrient rich compost.

Producing your own compost can help save money, it can help to protect Ireland's peatlands and reduce the amount of organic waste going to landfill sites. There are many different types of composting systems, it is important to choose the one that is right for you. You can learn lots more about garden and food waste prevention and compost by visiting www.stopfoodwaste.ie

One rule to follow when composting - if it is from a plant compost it, if it is from an animal avoid it.
www.stopfoodwaste.ie



Ideas to Help you Start Composting

Making Leaf Mould

If you choose to store Autumn leaves you can make leaf mould. Leaf mould is ideal for germinating seedlings, for suppressing weeds and for locking moisture into your flower beds. Make a storage unit for your leaves by stretching wire mesh around four posts which have been secured in the ground. Fill the cage with soggy leaves and cover with old carpet or cardboard. After 1 - 2 years the leaf mould will be ready to use.

Compost Heaps

Whether you choose to compost using a plastic unit, make your own from pallets or simply have a heap there are a few compost essentials to remember. Your army of natural decomposers need both carbon based brown material (paper, wood, Autumn leaves) and nitrogen rich green material (grass, weeds, fruit and vegetable peelings), a blend of these will keep your compost active and ensure the correct moisture levels. Also spending time shredding or tearing materials to be composted and turning your heap to add oxygen will improve the rate at which the material will break down.

Wormery

The brandling or tiger worm is an ideal worm to change nutrient rich unavoidable fruit and vegetable peelings from your kitchen to a compost. The worms grind up in their gut the food waste and produce their own weight in fertile and mineral rich worm casts every day. Build your own wormery by drilling holes in the side of a plastic bin. Add gravel, cover with hole punched plastic and then add a bedding of moist leaves and shredded paper. Bury your brandling or tiger worms along with a tasty meal of fruit and vegetable peelings from the kitchen in the bedding. Continue to feed the worms over time.

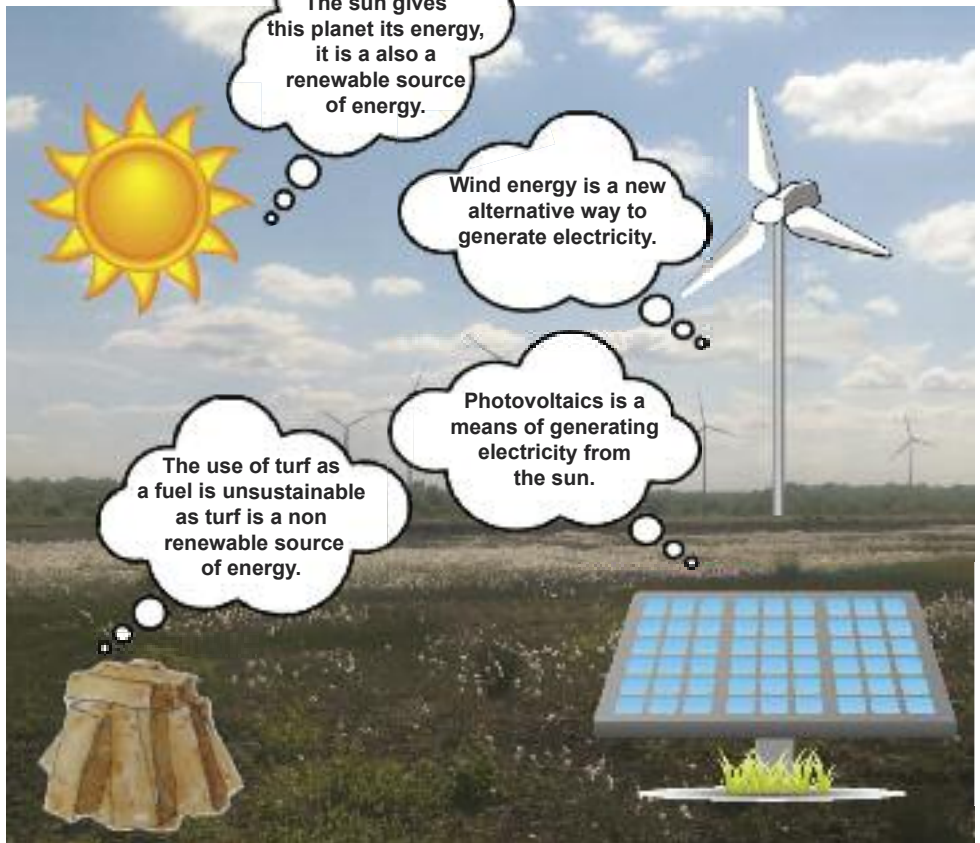
A wormery also produces a nutrient liquid feed often referred to as 'worm tea'. You can use this liquid feed to improve the growth of flowers and vegetables in your garden. If you would like to catch this liquid feed simply sit your wormery into a tray.



Energy & Climate Change

Fossil fuels are thousands and sometimes even millions of years old. They were formed from the accumulation and compaction of dead plants and animals. Fossil fuels include coal, oil, gas and peat. To meet Ireland's electrical energy needs we burn these fuels in power stations. While burning these fossil fuels a gas called carbon dioxide is released, this gas cannot escape our atmosphere and is creating a type of blanket around it. This blanket of carbon dioxide allows the heat energy from the sun in but prevents

this heat energy from leaving. With the heat energy from the sun unable to leave we are experiencing increasing temperatures also called global warming and this weather change is referred to as climate change. You might think that this will not affect us. Here in Ireland climate change is influencing food production, raising sea levels and contributing to biodiversity loss. Learn more about energy by visiting the website of the Sustainable Energy Authority of Ireland www.seai.ie.



Easy Ways we Can all Save Energy

Turn It Off

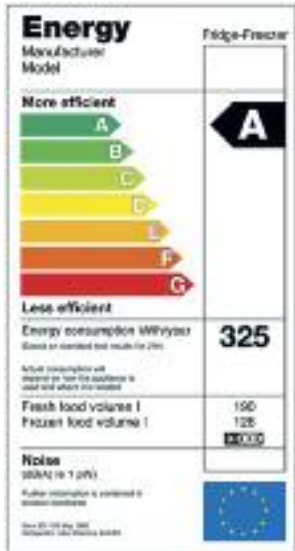
Appliances left on standby will still be using electricity. Make sure to turn off appliances such as televisions, microwaves and computers when you are finished using them, this will save up to 20% of the energy the appliance uses.

Switch Bulbs

Compact fluorescent lamp (CFL) bulbs use 70% less energy than traditional household bulbs and they last longer. With the price of CFL bulbs reducing all the time, make the switch today in your home and save energy. Don't forget it also helps to turn off lights when your not in a room!

Proper Use of Timers

Timers are designed to ensure you will have heat and hot water when you need it. Proper use of timers will support you in saving energy.



Leave the Car at Home

Most cars are burning petrol and diesel and from the exhaust pipe carbon dioxide is emitted into the atmosphere. For short distances walking and cycling will help you both save money and help the environment. Proper planning and use of public transport are also ways to support you in energy saving.

Lower Your Thermostat

By turning down a thermostat set at 20° by just 1°, it can save 10% on your energy bill.

Keep Closed

Ensure windows and doors are closed when the heating is on and close curtains in the evening. Curtains are insulators keeping heat in and drafts out!

Room Layout

Check furniture position in your rooms. Tables cabinets, beds and couches can often be placed in front of radiators. Take time to position furniture so that it is not blocking the heat from radiators.

Invest in Insulation

Heat rises so make the most of the heat you produce in your home by having your attic insulated.

Your Community Your Environment

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This Irish Peatland Conservation Council is a national charity (CHY6829) that works towards the conservation of a representative sample of Irish peatlands for people to enjoy now and in the future.



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