



# EMPIRIBOX

## Primary School Science

Empiribox is focusing on the environment and how to protect it. Part of this is encouraging more wildlife into our parks and gardens.

In this activity, your class will be drawing up leaflets or posters to help people understand why doing your part for the environment is important.

Spectacular Science

Leaflets and Posters

## Why is helping the environment so important?

**Task:** write and design a leaflet or a poster explaining why one of the below topics is important, what we can do to support this and how we can implement it in school or at home

1. **Recycling**
2. **Renewable energy sources**
3. **Saving energy**

## Recycling

### What is recycling?

We use the word recycling when we refer to waste or rubbish that we can convert into reusable or renewed things.

### What can be recycled?

1. Tin cans
2. Plastic bottles
3. Glass bottles
4. Cardboard
5. Paper

For a full list, look at this website – [Eco Scraps](#)

### Why is recycling important?

1. Reduces the need to find new materials in a natural environment reducing the greenhouse gas emissions and destruction of the planet
2. Saves every by minimising the manufacturing process which in turn reduces the amount of greenhouse gasses produced
3. Protects the environment both at home and all around the world because we don't need to extract new materials
4. Stops landfill sites being filled which means that we are protecting the environment and habitats of animals

### How can you recycle at home?

Look up your local council recycling guidelines and make sure that you recycle all that you can from your home. You can do this at school and at local clubs too, like football or gymnastics club. Another thing to do that will help is to make sure you buy products that can be recycled so that you are not throwing things away. Look out for the below labels on food packets to help you know if it can be recycled or not!



### Top Tip

To really help reduce the amount of plastic and waste we have, try not to buy it in the first place. Purchase loose fruit and vegetables or items packages in cardboard instead.

## Renewable Energy

### What is renewable energy?

Renewable energy refers to an energy source that does not go down when it is being used. Most power plants currently use fossil fuels, such as coal or oil, that will eventually run out. Renewable energy sources will never run out OR damage the planet.

### Sources of renewable energy

1. **Solar**
  - a. Energy from the sun that is captured using a solar panel
2. **Wind**
  - a. Energy taken from the wind power using wind-turbines
3. **Hydroelectricity**
  - a. Energy taken from flowing water, such as a river, and captured in a dam or watermills
4. **Geothermal**
  - a. Using the Earth's own heat, energy is captured from the ground and used
5. **Ocean**
  - a. Motion energy can be gathered from the ocean waves that are caused by the moon cycles
6. **Bioenergy**
  - a. Energy created by the fermenting of plants or food waste
7. **Hydrogen**
  - a. A man-made hydrogen can be used to fuel cars in the future as it emits little to no greenhouse gasses

### Why is using renewable energy so important?

If the whole world started using ONLY renewable energy sources, global warming could be stopped. Using fossil fuels like we are will mean that we will eventually run out of them and have used all of the world's resources.

The benefits are huge if we swapped to renewables. They are clean energy sources meaning they don't emit greenhouse gasses, they will never run out and they mean we don't have to destroy the planet by mining, deforestation and producing toxic fumes.

## Saving Energy

### Why is saving energy important?

When we talk about saving energy, we mean the energy it takes to generate electricity, fuel to power a car or pump gas to your homes and school.

Saving this energy is important to help fight climate change and save the planet. By reducing the amount of electricity, gas or fuel we use, we can reduce the greenhouse gasses emitted and help to slow down and eventually stop the effects of global warming. This is because the energy comes from power stations.

### How does saving energy save the planet?

1. Reduces the greenhouse gasses and toxic fumes produced by power plants
2. Uses less fossil fuels
3. Minimising the impact mining has on habitats and animals who live in those areas

### How can we save energy at school or at home?

Below is a list of things you can do yourself, at home and at school to help save energy.

1. Walk or cycle to school
2. Use public transport like a bus or a train to get around
3. Holiday in the UK
4. Wash clothes in cold water
5. Turn off lights and electrics (not the fridge!) at the wall
6. Don't turn the lights on if there is enough natural light from windows
7. Air dry clothes instead of tumble drying them
8. Turn the heating down and wear an extra jumper
9. Take quick showers instead of baths
10. Change all your bulbs to be energy efficient ones
11. Make sure you don't have any drafts around doors and windows where heat can escape
12. Don't use a dishwasher unless it's full
13. Turn off the tap when your washing up and fill the sink at the start
14. Use the stairs and not an elevator or escalator
15. Try not to print things, but if you do always print double sided