



ENERGY

INFORMATION SHEET

Do you Know?

Many people consider climate change and global warming the greatest environmental challenges facing the world today. These issues affect everyone in the world but the good news is that everyone in the world can be a part of the solution if they so desire.

What is Climate Change and Global Warming?

Changes in a given area's average temperatures, wind patterns and amounts of rainfall could be classed as Climate Change. One of the results of climate change is that temperatures are rising all over the world, which is known as global warming. In fact, the ten hottest years ever recorded have all occurred since 1990, and experts predict that in the next century average temperatures around the world could rise as much as an average of 5.8°C.

Causes of Climate Change and Global Warming

While politicians around the world wrangle about the causes of climate change and global warming, scientists know that when greenhouse gases such as carbon dioxide and methane are released into the atmosphere they contribute to the problem. The United Nations has attempted to limit these harmful gases with the Kyoto Protocol, a set of guidelines that asks countries to meet a target of reduce greenhouse gases to a level that will not interfere with the climate or cause further change. Since signing the Kyoto Protocol, the UK's greenhouse gas emissions have indeed been reduced, but there is still a long way to go.

Climate change and global warming are serious issues affecting everyone on Earth. Educate yourself about climate change and global warming, and the ways in which you can reduce your own contributions, and then pass along all that you have learned.

Why do we need energy?

Energy is an essential part of our daily lives. We use energy to heat and cool our homes, schools and businesses. We use energy for lights and appliances. Energy makes our vehicles go, planes fly, boats sail, and machines run.

All living things need energy too. Plants use the light from the sun to grow. Animals and people eat the plants and use the energy that was stored. Food is fuel for our bodies' energy needs like muscle power.

We also use our own bodies to make heat energy. When you have been running or working really hard, your body produces heat energy. When you wear clothing like a jacket in the winter, it holds in that heat energy and keeps you warm.

10 Easy Ways To Save Energy

1. **Turn off lights when leaving a room**
2. **Turn appliances off standby**
3. **Adjust the thermostat during winter**
4. **Don't leave the fridge door open**
5. **Use energy saving light bulbs**
6. **Turn temperature down on washing machine**
7. **Take a shower instead of a long bath**
8. **Insulate loft**
9. **Wear the right clothes**
10. **Use your fridge efficiently**



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ACTIVITY SHEET 1

MAKING A WINDSOCK

Understanding the weather and wind energy can be made into fun activities. This is a simple wind sock that young children will enjoy making. Once it's complete they can take it outside to see how windy it is and which way the wind is blowing.

Resources Required

Paper
Felt tip
pens
Tissue paper
Sticky tape
String

Activity

Decorate a piece of A4 paper, you could use felt tip pens, paint a design or use recycled pieces of coloured paper

Tape some strips of tissue paper onto the non decorated and long side of the paper. It's easier to cut strips part way but not all the way to the top.

Roll the paper into a tube and tape shut.

Puncture a couple of holes at the end without tissue paper.

Feed through some string and tie the ends together.

Take the wind sock outside.



0—2 SUGGESTIONS

Allow younger children to experience wind by taking them outside. Whilst outside, use scarves, ribbons, parachutes etc to mimic the feel of the wind on their face. Talk to them about the sound of the wind, making wind noises. Read stories about wind to them whilst outside.