

Energy

- How much energy do we use in the home?
- Can we reduce the amount of energy we use?
- Why do we need to reduce the amount of energy we use?



Where do we use energy in our homes?

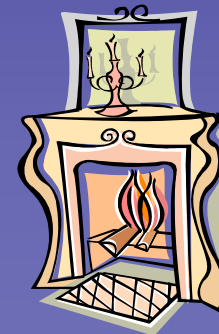
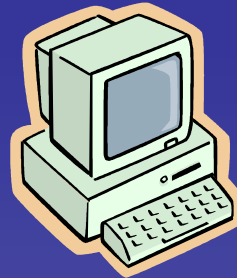
- Brainstorm all the uses of energy in our homes.



Where do we use energy in our homes?

- Did you think of all of these?

Can you think of any others?



How much energy do we use in our homes?

- Look at the table below and calculate how much energy you use in your home. Electricity is sold in 'units'. 1 unit of electricity = 1 kilowatt hour.

Household Appliance	Units of Electricity	Units used in one week
100w light bulb 10 hours' use for	1 unit	
60w light bulb 16 hours' use for	1 unit	
20w low energy light bulb 50 hours' use for	1 unit	
Iron 2 hours' use for	1 unit	
Fan heater 1 hours' warmth for	2 units	
Washing machine weekly wash for family of 4 for	10 units	
Tumble dryer dries 4kg of cottons for	2.5 units	
Microwave reheat 5 pre-cooked meals for	1 unit	
Cooker 1 week's meals for average family for	20 units	
Kettle 45 cups of tea/coffee for	1 unit	
Fridge 1 day's use for	1 unit	
Fridge/freezer 12 hours' use for	1 unit	
Vacuum Cleaner 1 hour's cleaning for	1 unit	
Television 6-9 hours use for	1 unit	
Immersion heater to heat water 1 hour's use for	3 units	
	Total units used	



Can we reduce the amount of energy we use?

Can you think of any ways in which you could reduce the amount of energy you use at home?



Can we reduce the amount of energy we use?

Did you think of all of these?

- Use lower energy light bulbs
- Turn off lights when you leave a room
- Wear extra clothes rather than using fan heaters
- Pick up rubbish from the floors to reduce time spent vacuuming
- Turn off television when you leave a room
- Keep the fridge/freezer door closed to reduce energy spent cooling down the temperature
- Hang washing outside to dry rather than use the tumble dryer
- Only boil the kettle when you need to make a hot drink
- Do not leave appliances on 'standby'
- Close doors to keep the heat in

Can you think of any more?



Why do we need to reduce the amount of energy we use?

Write your suggestions below.



Teacher Notes

This unit is designed to meet the Education for Sustainable Development objectives. The areas met by this unit are:

- Sustainable Change – understanding that resources are finite and that this has implications for people’s lifestyles and for commerce and industry;
- Citizenship and Stewardship – recognizing the importance of taking individual responsibility and action to make the world a better place;
- Needs and Rights – understanding our own basic needs and about human rights and the implications for the needs of future generations of actions taken today.

The activities involve the children brainstorming uses of energy around the home, then using information in a simple chart to calculate how much energy they use in their homes. This information could be collected on an individual or group basis and used by the children in a data handling session. Slide 4 can be printed and used by the children to record their data. Finally it is important for the children to understand the importance of sustainability and that resources are finite and that we need to conserve the resources we have on our planet.