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# **REDUCE YOUR CARBON FOOTPRINT**



**Photo Cards To Build Environmental Awareness**

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ECO PHOTO cards contain images, information and activities to increase awareness of global and environmental issues for students working in a cross-curricular context. The focus is on discussion in groups as well as at whole class level, using the CD-ROM supplied in this pack to facilitate projection onto a whiteboard.

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### Acknowledgements

© Les Ray & Malcolm Watson Published by ECO Publishing International Ltd., 2010

ISBN 978-1-907049-42-2

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## Greenhouse Gas

### Background Information

- Carbon dioxide is one of the 'greenhouse gases' that make up about 1% of the Earth's atmosphere.
- These gases play an important part in keeping the Earth warm.
- If the proportion of greenhouse gases in the atmosphere increases it will become warmer. It could become too warm to support life as we know it.



### Look At The Photographs

1. One photo shows natural gas being burned near an oil well. How do you think the burning gas is creating greenhouse gas and adding to global warming?
2. Think of five ways in which we use oil and gas products. Can we live and work without any of these things?
3. Trees remove carbon dioxide from the atmosphere. How can we encourage people to plant more trees? How can we reduce the amount of new timber used in the world?

### Linked Activities

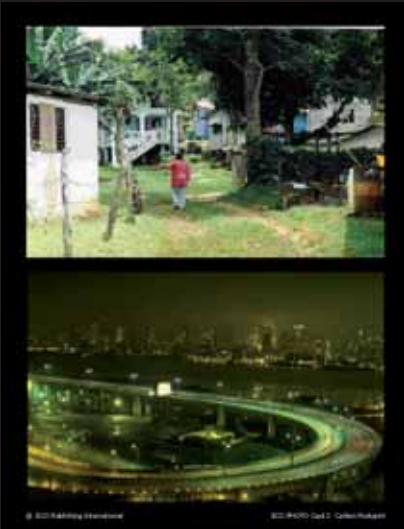
- Paint pictures of a scene using colour to show it as hot or cold.
- Compare the average noon and midnight temperatures of contrasting locations. Decide whether an increase in temperature might be beneficial, and explain why.
- Find out about surface temperatures of other planets and the Moon at the hottest and coldest times of the day. Note whether they have an atmosphere and what gases are present.

### More Information

The Earth's atmosphere is made up almost entirely of nitrogen (about 78%) and oxygen (about 21%). These gases are important in supporting plant and animal life but have very little effect on the climate. This is regulated by trace gases in the remaining 1% of the atmosphere: carbon dioxide, methane, nitrous oxide, ozone, water vapour, halocarbons.



## Carbon Footprint



### Background Information

- The carbon footprint of an individual, household or organisation (how much greenhouse gas you create) can be calculated - and so measured.
- The richer a country and its people become the greater the carbon footprint of its population. This is because richer people have more vehicles, travel more, own more things that use electricity and waste more than people in poorer countries.

### Look At The Photographs

1. One photo shows a village in Jamaica. How can you tell the people have a low carbon footprint? What can you see that tells you about:

- how much electricity they use?
- how many vehicles they use?
- how much pollution there is?

2. One photo shows a big city. How can you tell the people have a high carbon footprint? Think about:

- Electricity • Vehicles • Pollution

3. What practical things can we do every day to reduce our carbon footprint?

### Linked Activities

- Find out about the effects of burning fossil fuels in cities: for example, 'smog' in London and Los Angeles and Beijing. What is the effect on the air quality, the people, buildings and environment?
- Compare the carbon footprints of different companies that produce or sell similar products. Find the reasons for any significant differences.
- Research different types of transport or fuel and use the Internet to calculate their carbon footprints for similar usage.

### More Information

Websites provide carbon footprint calculators using slightly different data. Some include diet (vegan, vegetarian, mixed and whether any fruit or vegetables are home-grown). For a child-friendly version, see [www.kidsfootprint.org](http://www.kidsfootprint.org). The UK has its own calculator: [www.direct.gov.uk/actonco2](http://www.direct.gov.uk/actonco2). In the USA, the US Environmental Protection Agency site ([www.epa.gov](http://www.epa.gov)) has a calculator. The Global Footprint Network ([www.footprintnetwork.org](http://www.footprintnetwork.org)) also has useful resources.