# Maths Takeaway

# This month's special

# **Eco maths**

#### Did you know...

- eight out of ten of the warmest years on record in central England have occured since 1990
- the annual mean temperature in central England for 2006 was easily the highest since records began in 1659
- research shows that the average annual temperature across the UK may rise by between 2° and 3.5° C by the 2080s
- summer rainfall in the south of England may be 50% less by the 2080s.

www.defra.gov.uk/environment/statistics/globatmos/ gagccuk.htm





## **Starters**

#### Can you...?

- compare the cost of organic or fair trade products with the cost of your usual brand
- find out which foods you buy have the highest food miles
- make sense of the energy rating charts when choosing a new appliance
- work out how much you would save on fuel costs and road tax in a year if you bought a more energy efficient car
- calculate how many extra calories you could use up by cycling or walking to work instead of going by car.

Check out your maths skills by doing the mini-test at:

#### www.move-on.org.uk/testyourskills.asp

You can join a free group to improve your maths and gain a national qualification. Ask at the library, your local college or learning centre, ring 0800 100 900 or look on the Move On web site to find a local test centre.

### Main course

#### Calculate your carbon footprint

Everyone has a carbon footprint – it's your own personal measure of how much carbon dioxide you create and how much you contribute to climate change.

Use the carbon footprint calculator and get a personalised action plan with ideas on how you can help tackle climate change at:

www.direct.gov.uk/en/environmentandgreenerl iving/actonco2/DG\_067197

#### **Light for less**

Using one energy saving light bulb could save you around £7 and 26 kilograms of CO<sup>2</sup> a year.



How many light bulbs do you have in your house? If you changed them all for energy saving bulbs, how much money and CO<sup>2</sup> would you save in one year?

Find out more at:

www.energysavingtrust.org.uk

## **Specials**

#### **Rubbish numbers**

- On average every person in the UK throws away their own body weight in rubbish every 7 weeks.
- The cost of managing municipal waste produced in England is around 1.6 billion pounds per year.
- Milk bottles are reused an average of 13 times before recycling.
- We use 12.5 million tonnes of paper and cardboard every year in the UK.
- 13 billion plastic carrier bags are used every year in the UK.
- The UK has more than 50,000 bottle banks.

Can you put the numbers in green in order of size?

Find more recycling facts and recycling games at www.recyclenow.com.



## Set menu

# **Extras**

#### Grin or Groan?

**Q:** Why can't eco-warriors write down their sums?

A: Because they only use unleaded pencils.

- How many lightbulbs does it take to change a planet?
- How many politicians does it take to change a lightbulb?

Find out lots of answers at: www.google.com

#### **Resources for tutors**

Resources are available to download from www.move-on.org.uk. Register on the site to access the Move Up Teacher Route at www.move-on.org.uk/mu\_route.asp.

If you have any resources, jokes, quizzes, games, etc., about maths and money, please e-mail info@move-on.org.uk.

If the ideas on this page have encouraged you, or someone you work with, to try out some maths, please let us know.

Energy saving lightbulbs use one-fifth to one-quarter less electricity to generate the same amount of light. What is the energy saving alternative to a standard 60W bulb?

a)	6W	b)	8-11W
C)	13-18W	d)	20-25W

2 Vehicle tax now varies according to a car's CO<sup>2</sup> emissions.

www.vcacarfueldata.org.uk

Band	CO <sup>2</sup> emission (g/km)	12 month
		rate
А	Up to 100	n/a
В	101 -120	£35
С	121 -150	£115
D	151-165	£140
E	166 -185	£165
F	Over 185	£205

Your current car emits 124g/km CO<sup>2</sup> and has fuel costs of £844 for 12,000 miles.

If you swap to a car which emits 116g/km CO<sup>2</sup> and has fuel costs of £790 for 12,000 miles how much would you save in a year?

a)	£134	b)	£825
C)	£80	d)	£190

If you enjoyed these questions and want to try some harder ones, log on to the Move On Learner Route at www.move-on.org.uk.