



Waste Watch's education newsletter

summer 2006

issue 11

wasted

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Moving mountains

reducing the waste
we produce

www.wastewatch.org.uk

www.recyclezone.org.uk

wasted is published by Waste Watch, a leading environmental organisation promoting sustainable resource use in the UK by campaigning for all areas of society to reduce resource consumption, maximise resource reuse, and increase the percentage of waste recycled.

editorial

Welcome to the Summer 2006 edition of *Wasted!*

We finish our tour of the waste 3Rs with a look at **reducing waste**. This means cutting down on what we buy and use and is even better than recycling or reuse because, as well as creating less waste, it also uses fewer of the world's resources in the first place.

Over the last year, **wasted** has shown you how to 'reduce, reuse and recycle'. Now it's your turn to put the 3Rs message into practice!

The cover image shows the Matterhorn rising from a landfill site. Luckily this has been created using digital trickery as the waste problem hasn't got that bad... yet!

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newsupdate

Cheshire students worth their weight in rubbish

Pupils from St Thomas Moore and Ellesmere Port Catholic High Schools in Cheshire saw first hand the environmental impact of waste when they visited Pen Y Bont landfill site near Chirk. The pupils, who were working with Cheshire Schools Waste Action Club (SWAC), entered the site via the weighbridge in the same way as the thirty or so bin lorries that empty their content at the site every day. The groups toured the site on foot with its manager learning how it and its integral energy from waste compound are run. They particularly enjoyed learning about the way in which the site is kept seagull free using a falcon to scare away the birds.



Pupils from St Thomas Moore Catholic High School discover that their whole class equals the weight of one bin lorry

Monsters invade Nottinghamshire

Students from thirty primary schools recently took up a rubbish reuse challenge from Nottinghamshire SWAC when they entered its Rubbish Monster Competition.

The first prize of a free field trip to an environmental education centre went to Banks Infant School. Mrs Barton, a class teacher at the school, commented that the children had thoroughly enjoyed creating the monsters and, in the process, had gained an understanding of how rubbish can be reused. Two runner-up schools, Robin Hood Infants & Nursery School and King Edwin Primary School, won prizes of book vouchers and recycled stationery.

Edwina Woodland, SWAC education officer, was excited by the response to the competition. 'SWAC received some fantastic rubbish monsters, which made it incredibly difficult to choose the three winners'.



The winning school with their rubbish monsters

Rotherham reducing rubbish as children's understanding increases

As a culmination to work with Taking Home Action on Waste, Waste Watch's Rotherham project, children have been sharing ways of reducing rubbish with their parents through assemblies explaining how to cut packed lunch waste and avoid excessive packaging. Reducing the amount of lunch-box waste has not only had environmental benefits but has also encouraged healthier eating, with parents of children commenting that, as a result of work with THAW, their children had started to request healthy, waste free food.

Initial results have shown that in the areas in which the

project has worked, children's understanding of waste reduction, reuse and recycling has increased substantially and that this has led to an increase in household recycling and a fall in the amount of rubbish thrown away. Paul Maddox, Waste Watch education manager said 'Initial findings from the project have been encouraging, providing evidence that school-based waste education can lead to more sustainable waste management in the home. We will be building up a fuller picture over the Summer in order to produce an interim report on the impact of the project'.

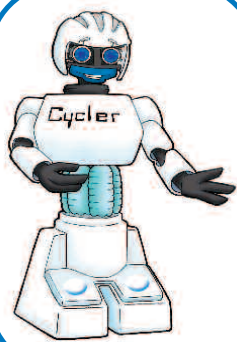
Yorkshire Dales pupils put best foot forward

Pupils from six Yorkshire Dales primary schools took part in an exciting project during the Spring term to examine their environmental impact using ecological footprinting.

All six schools had previously worked with North Yorkshire SWAC and the new project gave them the opportunity to apply lessons learned from taking action on rubbish to other areas including transport, food, energy and water. Starting with an investigation into the environmental impact of chocolate eggs and their packaging, each school went on to explore its own particular aspect of living sustainably and worked with an environmental artist to create their own artistic interpretations of footprints. The project concluded with an event at which more than 100 children from all six schools joined together to share what they had learnt. Irene Wise of SWAC said, 'Ecological footprinting has already been successfully used with secondary schools and this project shows that the approach can also be applied successfully with younger pupils'.



Pupils hard at work on their artistic footprints



Carry on Cyclor

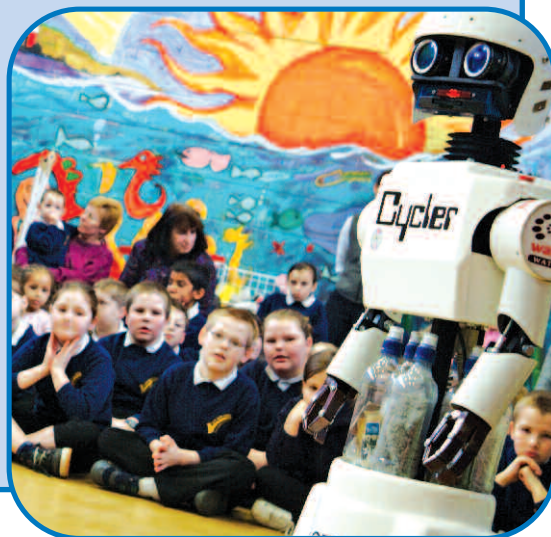
Cyclor continued to rap around the country during the Spring term thanks to support from Laing Charitable Trust. This enabled the robots to work with 36 schools and more than 7000 children in five areas where visits would not otherwise have been possible. Cyclor was enthusiastically received by the children and schools, as well as generating local media interest including coverage on local TV.

The rapping robot visited schools in areas ranging from inner city London to rural Powys. Many of the schools visited were working towards becoming Eco Schools and the visit from Cyclor supported this. In one school in Walsall, the caretaker followed up the visit by placing 'Cyclor needs you!' posters around the school to remind children to make use of the school's recycling scheme.

Cyclor the WRAPping robot

Waste Watch's team of Cyclor robots is joining the Recycle Now campaign in order to engage children, their families and schools in taking action against waste. New funding from the Waste and Resources Action Programme (WRAP) means that Cyclor can be offered to local authorities and other interested organisations in England at a much reduced cost of £700 a week.

There has already been a lot of interest so, in order to not miss out on a Cyclor visit to your area, email wendy@wastewatch.org.uk. We regret that we are no longer able to arrange Cyclor visits to individual schools. If your school is interested in a visit, we suggest that you give your local council's Recycling Officer a call in order to encourage them to arrange a Cyclor visit to your area.



National projects

Cyclor

Wendy Jenkinson – 01743 236 951
wendy@wastewatch.org.uk



Waste Education Support Programme

Alison Pagan – 01328 711 369
alison@wastewatch.org.uk



The Directory Recycling Scheme are kind sponsors of the Education Gateway, an online database of local waste education resources at www.wastewatch.org.uk/education/list_gateway.aspx

Local projects

Schools Waste Action - Cheshire

Jen Sterry – 01244 603237
jens@wastewatch.org.uk



Nottinghamshire Schools Waste Action Club

Edwina Woodland – 0115 977 2467
edwina@wastewatch.org.uk



Ashfield DC, Bassetlaw DC, Broxtowe BC, Gedling BC, Mansfield DC, Newark & Sherwood DC, Rushcliffe BC

Taking Home Action On Waste (Rotherham)

Kay Whitfield – 01709 559910
kayw@wastewatch.org.uk



North Yorkshire Schools Waste Action Club

Irene Wise – 01609 761 818
irene@wastewatch.org.uk



Please note that North Yorkshire SWAC will be finishing at the end of July and is therefore unable to take further bookings from schools.

Recycle Western Riverside

Damien Morris & Maree Berechree
020 7549 0333/0335
damien@wastewatch.org.uk
maree@wastewatch.org.uk



London Boroughs of Wandsworth, Lambeth, Hammersmith & Fulham and the Royal Borough of Kensington and Chelsea.

Test the grown-ups!

Children in Hammersmith and Fulham, Wandsworth and the Royal Borough of Kensington and Chelsea are getting a chance to turn the tables on their parents by testing their knowledge of recycling.

The children are taking part in Recycle Western Riverside's new schools competition using a quiz that is designed to be fun and engaging while also stimulating discussion about rubbish at home. As well as the questions, the children are also given the answers so they can mark their parents on how many questions they get right.

Schools taking part could win a prize based on the proportion of the school's pupils who participate. The winning school will win £200 cash, with two runners-up each receiving £100. Look out for the names of the winning schools in the next edition of *wasted*.

Crafty recycling

Pupils at Godolphin and Latymer School in Hammersmith recently invited education officers from the Recycle Western Riverside project into their school to help run a papermaking activity for their "Waste Watch" week.

The event was organised by Nirja Joshi, age 15, who said, 'I wanted to remind people of the 3 Rs – reduce, reuse, and recycle. By making beautiful cards out of recycled paper, students can make something unique as well as saving both money and paper. It's also a way for people to have some fun while learning about the need to reduce the amount of resources that we use.'

During the papermaking sessions, pupils used old shredded paper to make sheets of recycled paper which they then decorated with glitter. They went on to write a pledge on their new creations, committing them to reducing their rubbish even further.



Students from Godolphin & Latymer School in Hammersmith learn the art of papermaking'

Watching waste in the west



Face to face with mould during composting training

Building on last year's very popular teacher training courses for Devon County Council, Waste Watch delivered six further days of training to 85 delegates, split between the town of Tiverton and the beautiful surroundings of Buckfast Abbey on the edge of Dartmoor. Two different courses were run, both of which provided a mixture of primary and secondary teachers and school support staff with the knowledge and resources to enable their schools to recycle, compost and otherwise cut their waste.

The first course, **Cut Your School's Wasteline**, introduced teachers to the problem of waste at school and how to take action against it through practical activities including a waste audit and the develop-

ment of a waste action plan and its incorporation into a school environmental policy.

Ready, Steady, Compost! a newly developed training programme, provided delegates with information on how to establish a successful school composting scheme and incorporate work on composting into the curriculum.

The two courses were enthusiastically received, with many delegates attending both days. Participants particularly valued the combination of information and practical activities and the enthusiastic and approachable nature of the trainers.

Both courses are now available for delivery in other areas. To discuss Waste Watch teacher training in your area, please email alison@wastewatch.org.uk.

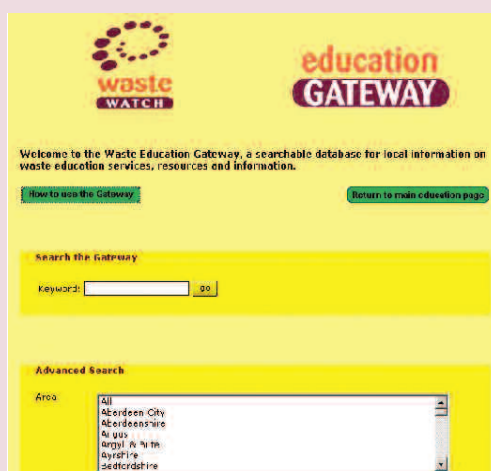


Paper making in progress

The following are members of the WESP Network and can be approached by schools wishing to undertake waste education work.

Bexley Council	01322 356901 01322 356902
Biffa	01494 521 221
Bryson House, Belfast	0289 034 7742
Buckinghamshire County Council	01296 387 195
Wycombe DC	01494 421440
Chiltern DC	01494 732281
Derbyshire	01629 761318
Dales Council	
Devon County Council	01392 382 920
South Molton Council	01271 345806
Essex County Council	01245 437128
Gateshead Council	0191 433 7418
Gloucestershire County Council	01453 426525
Haringey Council	020 8489 3261
Isle of Man	01624 686540
Islington Council	020 7527 5996
London Borough of Bromley	020 8313 4989
Lewisham Council	020 8314 2295
London Borough of Redbridge	0208 708 5518
Melton Borough Council	0771 768 4707
Midlothian Council	0131 561 5399
Norfolk County Council	01603 223835 01603 223829 01603 223347
Northamptonshire County Council	01604 237633 01604 237332 01604 237633
Oldham Council	0161 911 4448
Pembrokeshire County Council	01437 775728
Shanks	01708 634553
Shropshire County Council	01743 253066
Somerset County Council - Somerset Waste Action Plan	01693 351350
South Cambridgeshire District Council	01954 713134
Staffordshire Moorlands Council	01538 483 662
The Recycling Consortium	0117 9304355

WESP is Waste Watch's 'Waste Education Support Programme'. It provides training and resources as well as a new online waste education database and the opportunity to join a network of waste education practitioners.



Gateway opens up

Waste Watch's Waste Education Gateway is now live. The free online database provides schools throughout the UK with information on support for waste education in their area. For any school wanting to know how to recycle their paper, cans or printer cartridges, or what organisations or resources are available to support their waste project, the Gateway is the place to start.

The Gateway can be found in the education section of the Waste Watch website, www.wastewatch.org.uk/education and has been developed with the support of the Yellow Pages Directory Recycling Scheme.

SWESP off to a flying start

The first training events of the new Scottish Waste Education Support Programme (SWESP) have now been held. Waste Watch has been working with Edinburgh based 'Changeworks' (previously 'Lothian and Edinburgh Environmental Partnership') to develop this new programme with support from the Scottish Executive.

A two-day 'core' training event was held in April in New Lanark, followed by a one-day course in East Kilbride in May looking at how to deliver waste education in nursery and secondary schools. The courses drew participants from all over Scotland and received a very positive response from those attending.

Shropshire stunner

Just one bag of rubbish was left to sort at Weston Lullingfields Primary School's second waste audit after Shropshire's Waste Education Support Programme helped them to reduce the waste in their bins by a stunning 96.7%. This fantastic achievement came just a year after the school's first audit and was accounted for by the introduction of a composting scheme and by giving careful thought to how to reduce and reuse paper before collecting it for recycling.

School headteacher, Alan Parkhurst, praised his pupils' commitment and the support they receive from Sue Jelleyman, Shropshire County Council's waste education officer.

Reuse is the goal in Melton

During the Big Recycle week in June, Melton Council held their first 'Give and Take Day'. This community swap shop event in Ashfordby proved to be very popular, with items ranging from sun loungers to children's toys finding new homes.

As a warm up for the World Cup, Recycling Officer Paul Coates, ran a penalty shootout competition for the children who answered questions on recycling before challenging him to a penalty.



Roly Pig rolls in

Pupils at Ysgol Bryn Onnen in South Wales, were presented with a special 'Roly Pig' compost bin in recognition of their recycling efforts by Torfaen Council's Waste Education Officer. The bin, which arrived in time for Compost Awareness Week in May, has enabled the school to start a community composting scheme within its grounds, involving both pupils and parents.

Gareth Watkins, teacher at the school, said: 'Roly Pig is really good fun and will make composting not just educational but also enjoyable for the children.'

Norfolk Show recycling enlists high school students

Students from Cliff Park, Neatherd Community and Wayland High Schools worked with local artist, Karen Whiterod, to design sculptures and banners made from recyclable materials for the Royal Norfolk Show at the end of June.

The purpose of the displays and sculptures was to encourage more visitors to use the show's recycling stations. Eighty students from the three schools also helped out as recycling stewards over the two days.

For information on how you can benefit from membership of the WESP Network, email alison@wastewatch.org.uk

Packaging - does size matter?

One way of reducing the amount of waste we produce is to buy in bulk. This is because one large packet or container uses less material than a number of smaller packets or containers containing the same amount.

Get your class to test how true this is using this maths investigation combining measurement of weight, volume and area.

Lesson introduction

Ask the children to suggest why packaging of food and drink is necessary. Reasons include: preserving the food and ensuring hygiene; ease of transport and storage; and making the product and its manufacturer identifiable to consumers. Brainstorm some different types of food packaging and the materials these are made from. Examples include:

- Bottles and jars made of glass or plastic
- Boxes and packets made of paper, card or plastic
- Cans made of metal
- Bags made of paper or plastic

Remind the children that we buy products for the contents (what we can eat and drink) rather than the packaging it comes in.

In order to conduct the investigation, divide the children into groups of 3 or 4. Rather than having a full set of packaging for each group, it might be best to put different sets of packaging in different locations around the room and ask the groups to rotate around these, finding the instructions for each activity on a card provided with each set. However there are many ways in which the work could be organised. You know your own class the best so choose a method that suits them and you.



The investigation

Part 1 Bottles - You will need:

- Sets of empty plastic bottles containing the same amount of product over-all e.g. one 2 litre bottle, two 1 litre bottles, four 500ml bottles. Plastic milk cartons with carrying handles are ideal as these can be weighed easily using a spring balance. Alternatives would be one large yoghurt pot and a set of smaller pots containing the same amount in total, or varying sizes of bottled water.
- Spring balances capable of measuring between 0 and 100g.



Ask the children to calculate the total amount (volume) that would be contained by each set of bottles. It should come to the same amount for each.

Ask the children to use a spring balance to weigh the empty bottles. Start with the largest bottle first and record the weight. Then do the same for each of the sets of smaller bottles and compare the amount of packaging used in each.

Part 2 Packets - You will need:

- Several sets of empty packets, each set containing the same amount of product in total e.g. one large pack of cereal containing 500g of cereal, two 250g packs and a multipack containing many small packs.
- Depending on the method of area measurement to be used (see below), you may need the following: sticky tape, scissors, transparent centimetre square area grids, centimetre rulers, calculators.

Ask the children to work out the total weight of product in each of the sets of packets. They should find out that they all contain the same amount.

The children then need to compare the amount of cardboard packaging used in each set, measured in terms of area. A number of ways to do this are outlined below in order of increasing complexity so that you can tailor the method used to the age and ability of your children.

- Open out the packets and use sticky tape to fix the smaller ones together so that the total area of card can be directly compared to that for the larger packet without the need for precise measurement.

- Use scissors to cut the boxes into rectangles. This should generally just require cutting along the folds. Use a transparent centimetre square area grid to count the number of centimetre squares in each rectangle and add together the areas for the different rectangles to find the total area of card used in the packet.
- Use a ruler and pencil to draw lines dividing the packet into rectangles. Measure the length and breadth of each rectangle to the nearest centimetre and multiply these two figures together to give the area of the rectangle in square centimetres. Finally, add together all of the individual rectangles to find the total area of the packet.

For older or more able children, you could extend the activity by asking them to measure the amount of plastic packaging used for the inner liner of the packet (and for a layer outside the packet if there is one). This will be harder than measuring the area of cardboard as it is unlikely to be possible to work out the area by dividing into rectangles.



Conclusion

Ask the children whether it is true that buying in bulk means buying less packaging than if purchasing multiple small packets.

How much difference does it make? For example, do multiple small packets require twice as much packaging as one larger container? Or is the difference greater or smaller than this?

Finally discuss with the children why it is good to reduce packaging. Explain that more packaging means that more resources are used, in the form of energy, water, trees (to make cardboard) and oil (to make plastics). There is also more rubbish to be thrown away. Not only is it better for the environment to buy larger packets, it's better for the pocket as well, as larger packets work out cheaper than smaller ones in the long run. There is an entire new maths investigation here!

We would be interested to know your results so, if you have the opportunity, email your findings to education@wastewatch.org.uk specifying the brand, type and sizes of packets investigated.

Choosing to reduce – identifying needs and wants

Reducing waste is good because, not only does it cut the amount of waste going to landfill and incineration but it also avoids using as many resources in the first place. There are two main ways in which we can reduce waste. The first of these is by thinking hard about the packaging of what we buy (see primary resource opposite). The second is to think about whether we really need what we are planning to buy at all.

Activity 1 – Do you need it? Or do you just want it? (10 minutes)

In pairs, one person names something that they want. Their partner has to persuade them that they do not really need it and should not buy it. The first person has to explain the reasons why they think they should not buy it.

Swap roles before bringing the class back together for a brief discussion. Did anyone persuade their partner to change their mind?

Activity 2 – What is the difference between needs and wants?

(15 minutes)

Place students in groups of 3 or 4 and ask them to discuss for not more than 5 minutes the following question: 'How can we tell if something that we would like is a need or a want?' Then combine pairs of groups for a further 5 minutes to share their answers and reach a consensus. Finally bring the class together and share the answers arrived at by the merged groups in order to attempt to reach a class consensus.

A possible answer might be that needs are things that we really cannot live without and wants are things that we would like to have but which we could manage without. But is it as simple as that? For example, food is undoubtedly a need but are all types of food necessary and do most of us need to eat as much as we do in order to receive adequate nourishment?

Activity 3 – Deciding what we need and what we want

(10 minutes)

Put the students back into groups and ask them to decide which of the items listed below they regard as needs and which as wants.

television
computer
shelter
running water
fruit & vegetables
beef burger
pet dog
toys & games
books
cornflakes
bottled water
dishwasher
cooker
skateboard



electric lighting
clothes
mobile phone
garden
CDs
soap
toothbrush
football
bicycle
car
bed
warmth
jewellery
shoes

Each group should assume that they do not already own the items listed so are having to decide whether to buy them or not. Are there any items in the list that they wouldn't want at all?

Bring the class together to discuss. Were there any items that everyone identified as either needs or wants? Was there anything that nobody wanted and, if so, why?

Activity 4 – Does everyone have the same needs and wants as us?

(15 minutes)

Do the same exercise again but this time imagining that you are someone else with a different lifestyle.

Allocate the following different roles to the groups. It doesn't matter if two of the groups are given the same role.

- You are a single parent with a five year old child and are on income support
- You are a rich City of London banker for whom money is no object
- You are an 80 year old grandmother
- You live in a remote area of Asia with no mains electricity
- You are a monk/nun living in a monastery and dedicated to leading a simple life



From the viewpoint of the person they are role playing, the groups should divide the items up according to whether the items would be needs, wants or not wanted at all.

Bring the class back together to discuss, focussing in particular on the differences in needs and wants between the different roles and how these are different from what they themselves identified as needs and wants.

Activity 5 – Buy Nothing (Homework)

Buy Nothing Day is an annual international event founded by Adbusters Magazine and which now operates in more than twenty countries worldwide, including the UK.

Ask students to use the Internet to find out more about Buy Nothing Day using the Adbusters website www.adbusters.org/metas/eco/bnd. They should then design a poster or flier to promote Buy Nothing Day, clearly setting out the arguments for asking people to go without spending for the day.

Although, this year's Buy Nothing Day is not until November 25th, how about setting your own 'Buy Nothing Challenge'. Set students the challenge of spending nothing for a whole day and ask them to keep a diary of their feelings as the day progresses. How tempted are they to spend and on what? If they buy something, how do they justify their purchase? If the technology was available, it would be great to set this up as a video diary in the style of Big Brother! Of course, it would be best if teachers joined in with the challenge too!



A whirlwind tour of issues relating to waste reduction

The figures

- Developed countries comprise only 20% of the earth's population but are consuming more than 80% of its natural resources, causing a disproportionate level of environmental damage and unfair distribution of wealth.
- On average each person in the UK throws away their own body weight in rubbish every 7 weeks.
- Every year in the UK we use 12.5 million tonnes of paper and cardboard. We also produce 3 million tonnes of plastic waste, only 7% of which is recycled.
- Half of household waste consists of packaging originating from supermarkets and retailers. This includes the 150 million carrier bags used in the UK every week, each of which can take years to decay.



The issues

- Despite efforts to encourage recycling and reuse, the total amount of waste produced by UK households continues to rise by between 1 and 2% a year.
- Reducing waste means cutting the amount of it produced in the first place. It does not, as some people think, mean squashing down waste to make it take up a smaller space!
- Although recycling and reuse of waste are good, reducing waste is even better. This is because it avoids using as many resources as would otherwise be required and so limits the damage caused by mining and forestry, and the pollution and energy-use associated with transport and manufacturing.
- Some materials, for example some kinds of plastics, cannot be easily recycled (at least, not in all areas of the UK). It is therefore better to reduce the amount of these materials used in the first place.

The politics

- The European Union Landfill Directive, which applies in the UK, discourages the sending of valuable resources to landfill.
- Recycling targets set by the Government have already had a significant impact on the amount of waste going to landfill. However, unlike recycling, it is very hard to measure the impact of people's efforts to reduce waste and this makes it difficult to set targets for waste reduction.
- The Government's Waste Implementation Programme (WIP) aims to move the approach taken to rubbish up the waste hierarchy to emphasise reduction.
- Retailers maintain that packaging, particularly of food, is essential. Thirteen major retailers are now working with the Waste and Resources Action Programme to reduce the weight, volume and materials used in packaging and thereby reduce waste.

Take action at home

- The best way to reduce your rubbish is to avoid buying it in the first place! Before buying anything, ask yourself whether you really need it.
- When you do buy things, choose those that can be easily repaired or are well made and will last. For example, using long-life, low energy light bulbs saves money, electricity and waste. Avoid buying disposable goods such as non-rechargeable batteries, disposable cameras and plastic cutlery.
- Choose items with as little packaging as possible. Buy fruit and vegetables loose rather than pre-packed. Buy in bulk as larger packets create less waste than small, individual portions.
 - Avoid adding to the plastic bag mountain by using cloth bags or a 'bag for life' and refuse disposable plastic bags offered to you by shops.
 - Make a stand! Complain about over packaged products and return excessive packaging to shops.
- Cut your purchase of takeaway food and ready meals. As well as being heavily packaged and expensive, a lot of them aren't that good for you either.
- Sign up with the Mail Preference Service (www.mpsonline.org.uk) to stop junk mail.

Take action at school

- Rather than asking children to start all work on a new page, get them to rule off below previous work and continue on the same page. Develop strategies that encourage your children not to throw away written work as soon as they make a mistake.
- Only photocopy when you really need to. Ask yourself if it is the best way to present information to your class. Collect in photocopied sheets for use again next year.
- Think about how you can use I.T. to reduce waste, both in lessons and for administration. Only print out what you absolutely have to and, when you do, reduce paper-use by printing double sided.



Packed lunches – the good and the bad.

- Work towards waste free packed lunches. Ask children to bring reusable airtight containers for their food, and reusable bottles or flasks instead of individual cartons or cans

- Save money by sharing infrequently used resources with other local schools