Work at Waste at School

A Waste Watch Practical Guide
Waste Watch is the national agency promoting waste reduction and recycling. As well as publishing practical guides, it organises seminars and conferences, produces educational materials and works with local authorities, businesses and community recycling groups to promote practical action on waste issues. Waste Watch also works with central government to facilitate waste reduction and recycling and operates the Waste Watch Wasteline, a telephone and postal information service.

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work at waste at school
Together with Waste Watch, we share a common desire to actively promote sustainable waste management and prudent use of natural resources. Today’s children are tomorrow’s consumers and decision makers. Schools all over the UK are seeking to reflect the growing environmental awareness of their pupils by improving their own environmental performance.

This practical guide is a valuable tool for schools seeking to improve their waste management practices. UK Waste Management Ltd is pleased to support this work as a real contribution to the 3R’s in school – reduce, re-use and recycle.

Ray Georgeson
Executive Director
Waste Watch

Waste Watch is at the forefront of providing educational materials, information and training for waste reduction and recycling.

This practical guide provides schools with information to improve their own waste management practices, help the local environment and introduce practical environmental education into the classroom.

Waste Watch hopes readers will find ‘Work at Waste at School’ a useful and comprehensive resource for anyone concerned about waste in the school environment.
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school waste and the environment
Why Work at Waste at School?

Waste is a big problem in the United Kingdom. Every year, the UK produces 38 million tonnes of household, office and school waste. Most of this material, around 85%, ends up in landfill sites, 9% is incinerated and about 6% of it is recycled. This waste has significant environmental impact. For every tonne produced, it’s estimated that 5 tonnes of waste has been generated at the point of product manufacture and 20 tonnes at the point of raw material extraction – an impact way beyond that on our own immediate doorstep.

What can be done to minimise this impact? As landfill sites become scarce, and costs rise through the recent introduction of the Landfill Tax, pressure is certainly increasing to reduce our dependency on landfill. At the same time, the health and pollution issues associated with waste incineration are not yet fully understood. Whilst landfill will remain a final option for some of our waste, much more can be done to minimise waste at source, re-use materials, and to recycle. The three R’s – reduce, re-use and recycle – should be our top priority in helping to stem the increasing tide of waste.

How you and your school can help

With nearly 34,000 schools in the UK, schools have a vital role to play in contributing to the solutions to our national waste problem. Not only is there an important role in the education of tomorrow’s consumers and decision makers, but schools can also make significant cost savings, turning waste into a resource and taking action to put the three R’s – reduce, re-use, recycle – into practice. Currently most schools spend between £300 and £1000 on waste disposal each year depending on their size and produce a minimum of one tonne of waste per term. If every school implemented just one measure to reduce waste, imagine the difference this would make!

This guide will help you make that difference – it shows how your school can implement practical ideas to tackle waste which will both help the environment and save money. Supported with a range of case studies from schools across the UK, a background to the national waste problem and contacts for further advice and information, “Work at Waste at School” will prove an invaluable resource.

Waste and the National Curriculum

Any teacher being asked to consider waste issues and this guide will ask the question “how does this fit into the National Curriculum?” Statutory requirements regarding what has to be taught make teachers wary of anything that could be considered to be an “add on” extra. Within the programmes of study of each of the National Curriculum subjects there are a range of opportunities to increase understanding of waste and environmental issues. Any activities which do not fit neatly into the National Curriculum can be included in the 20% of “free” choice given to teachers.

Throughout the science programme pupils have to study materials and their properties. In geography, land use, the effect of humans on environments and the sustainable management of resources provide many occasions for the discussion of waste issues. This can be put into an historical perspective through local studies and within the context of a variety of the history study units. Waste issues can be used in mathematics to give the opportunity to use real life situations for mathematical analyses. Technology gives pupils scope to discover more about products and how they are designed and made, which should include understanding of packaging and issues of recycling and re-use. At Key Stage One and Two, (primary schools) good use is made of packaging material for developing skills in design and manufacture. The possibilities within “junk” material have always been a key element of two and three dimensional work in art. In the English curriculum, a multitude of activities for speaking, listening and writing exist in any area of work about waste.
Waste and its relationship to the National Curriculum

**ENVIRONMENT**
- pollution
- landfill
- incineration
- litter
- traffic
- dustbin contents over time
- development of materials
- change in lifestyles
- location of resources & transport
- processes
- resources

**GEOGRAPHY**
- dustbin contents over time
- development of materials
- change in lifestyles
- materials/physical resources
- manufacturing processes
- compost/decay
- habitats

**HISTORY**
- calculations
- school waste audits
- quantities/weights
- formulas
- graphs

**SCIENCE**
- materials/physical resources
- manufacturing processes
- compost/decay
- habitats

**MATHS**
- calculations
- school waste audits
- quantities/weights
- formulas
- graphs

**MUSIC**
- lyrics
- songs
- instruments from recycled materials
- poetry
- drama
- story-telling
- writing
- debating

**ENGLISH**
- posters
- murals
- sculptures
- fashion
- recycling bins
- recycled products

**ART, DESIGN + TECHNOLOGY**
- moral issues:
- poverty/exploitation
- greed
- lifestyles & environmental effects
- effect of production & waste on other cultures

**RELIGIOUS, PERSONAL + SOCIAL EDUCATION**
The waste hierarchy

When we are looking at ways to cut down on waste it is useful to place the choices available to us inside a waste hierarchy, where some options for dealing with waste are preferable to others. This is useful because the environmental impacts of waste are not just confined to their disposal. The processing, manufacture and transport of materials before they end up as waste uses energy and resources and creates pollution. The same can be said for recycling which is, of course, an industrial process like any other. This is why preventing the creation of waste in the first place is regarded as a better option. However, the environmental benefits of recycling are generally regarded as better than landfill or incineration, which fall to the bottom of the hierarchy.

Reduce waste
This option depends on people:
- cutting down on throwaway products
- cutting down on excess packaging
- buying only what is needed

Re-use waste
Re-use items to extend their life and prevent the purchase of more goods. Where possible use durable products, refillable or returnable containers, repair and refurbish broken or worn items.

Recover materials for recycling
Recycling means the re-manufacture of waste into products. Benefits of recycling include:
- less energy is used in the process
- recycling reduces the demand for virgin raw materials
- since many of these materials may need to be imported, recycling may also benefit the economy
- recycling reduces the amount of waste needed to be landfilled or incinerated
- recycling gives people a sense of responsibility for the waste which we all help to create, and is a positive way to help the environment

However, recycling itself does use energy and will never wholly replace the need for virgin raw materials which is why it is essential to re-use materials as much as possible before recycling them.

Landfill or Incineration with energy recovery
Energy can be recovered from waste when heat from incineration is used to generate energy, or when biogas from decomposing organic waste in landfill, is drawn off and used to provide energy. At the end of 1996, all but 5 incinerators in the UK were closed due to new EC emission standards, but several new waste-to-energy plants are now under construction.

Landfill without energy recovery
Burying waste in holes in the ground (often these are disused quarries). Modern landfill sites are capped and lined to prevent pollution leaking into the surrounding water table. Key environmental concerns are:
- leakage of chemicals and other substances into water and surrounding countryside
- build-up of methane gas can pose a hazard if not controlled
- spontaneous combustion can cause underground fires
- shortage of new sites to landfill
- as sites fill up, waste has to be transported longer distances, increasing pollution from carbon dioxide emissions
- otherwise useful resources such as glass and paper may be lost
Incineration without energy recovery

Burning waste. Modern incinerators have the facility to produce energy for heat and/or power from burning waste. They are also designed to minimise the resultant air pollution and are extremely costly to build. Concerns with incineration are:

- waste may be incinerated rather than recycled even if recycling is the better option, due to the need to maintain a high throughput of waste to make a return on the initial investment
- the large quantities of waste needed to maintain throughputs means transport movements are extensive
- strict anti-pollution measures are required to control air pollution. Concerns still remain about production of dioxide emissions from incineration
- After incineration, some waste – ash and other material – remains to be landfilled. Often this concentrated end-product is more toxic than the original waste.
- the availability of incineration is a dis-incentive to minimising waste production

To minimise the effect of waste on the environment, the first option must always be to reduce the amount of waste produced.

Background information on national policy

A great deal has happened in the last few years to pave the way for change in the way we treat our environment:

1990 White Paper and Recycling Plans

The Government’s first response to the growing demand for action on waste was to set a target of recycling 25% of household waste by the year 2000 as outlined in 1990 as part of “This Common Inheritance”, the Government’s White Paper on the environment. This was followed up by the Environmental Protection Act 1990, which asked local authorities to draw up recycling plans, to show how they intended to meet this recycling target. This led to increased partnership working between community groups, schools and local councils to improve recycling capacity.

Local Agenda 21

This growing awareness was reinforced by the Governments endorsement of Agenda 21 at the United Nations summit in Rio de Janeiro in 1992. Agenda 21 is an international commitment to reduce human impact on the global environment. Local Agenda 21 is a local action plan for sustainable development, co-ordinated by local authorities and involving all sectors of the community in shaping the future policies of their locality. Many schools and children are involved in Local Agenda 21 activities, and often this will include action on waste at school.

Sustainable development strategy and ‘Making Waste Work’

The Government’s official response to the 1992 Rio Summit was to produce “Sustainable Development: A Strategy for the UK (1994)”. In the waste management field, this led to the publication in 1995 of another White Paper: “Making Waste Work – a Strategy for Sustainable Waste Management”. This was the first time the UK Government had produced a national waste strategy for England and Wales. Separate strategies for Scotland and Northern Ireland are due in 1997. This White Paper is the precursor to a statutory waste strategy which should be produced during 1997 as required by the Environment Act 1995.
“Making Waste Work” has three primary objectives:

● to reduce the amounts of waste generated in the first place
● to maximise the benefit, and make optimum use of those wastes that cannot be avoided – by re-using, recycling, composting and incinerating with energy recovery
● to select waste management options that minimise the risk of pollution and adverse health effects.

The strategy sets a number of new targets for sustainable waste management, which are challenging but certainly achievable. They include:

● the recovery of 40% of household waste by the year 2005 (recycling and energy recovery)
● the reduction of controlled waste going to landfill by 10% by the year 2005
● the composting of 1,000,000 tonnes of organic waste per year by 2001

The strategy will also aim to set a target for waste reduction in the United Kingdom. Work on this is currently underway, with the aim of setting this target by the end of 1998.

“Making Waste Work” outlines how each sector of society can play its part in achieving these aims, and understands that sustainable waste management can only come about if co-operation and partnership becomes a priority. This means local councils, schools, voluntary groups, community businesses and industry all working together for a common aim.

The Landfill Tax

In 1996, the Government moved to promote waste reduction, re-use and recycling by making the cost of waste disposal to landfill more expensive. They have done this by introducing a Landfill Tax on waste going to landfill. This is set at two different rates, depending on the type of waste being disposed. While this means higher waste disposal costs, much of the income generated will go to reduce the employers contribution to National Insurance. This is one of the first ‘green’ taxes to be introduced in the UK, increasing tax on resources and reducing tax on labour. In addition, some of the Landfill Tax monies can be diverted to approved environmental uses, through approved Environmental Bodies. Many recycling and educational projects, as well as land reclamation, tree planting and wildlife projects will benefit from new resources made available by landfill site operators. Waste Watch is an approved Environmental Body, and “Work at Waste at School” is an example of educational work funded in this manner.

Environmental Education

“Taking Environmental Education into the 21st Century” is the 1996 UK Government’s strategy for Environmental Education in England. It stipulates that as a matter of priority, environmental education should be promoted within all sectors of education throughout the community, through formal and informal education and in the training of people of all ages.

In order to achieve this, schools need to give consideration to environmental education, not just within the curriculum but across all areas of school life. A positive attitude towards the environment should be reflected in the aims of the school and consideration needs to be given to waste issues when developing policies for purchasing, efficient use of resources, waste collection, maintenance of the school and its’ grounds and other aspects of school life.

Over the last few years, a real momentum has been generated to improve our environment by taking more action to reduce, re-use and recycle more waste. Increased education and awareness underpins all these policies and practical initiatives.

Without a strong lead from schools and colleges, the challenges of meeting the targets for sustainable waste management set for the 21st century may not be met. Children can act as a powerful lever and positive force for change, both at school and at home. In a recent survey by Aylesford Newsprint on what would encourage children to recycle, most considered that information and advertising were paramount, but sadly lacking. We hope that this guide will contribute to that challenge.
Section 2

taking action
Getting Started

There are several reasons why a school may decide to take action to reduce waste. More often than not, this springs from a desire to do something positive for the environment, to instil a sense of environmental responsibility into tomorrow’s decision makers through pupil involvement, or as a way to enhance the profile of the school in the eyes of the local community. Increasingly though, it is seen as a cost saving measure as waste reduction makes economic sense. Whatever the reason, the benefits are wide ranging and the opportunities to involve pupils in practical action to help the school are great.

This section of the guide will take you through some simple steps to work effectively at reducing waste at school. Because schools vary in size and make up, it is deliberately non-prescriptive but rather provides a series of guidelines and pointers to action.

Sheets you can copy for your own use are marked ...

It is important to remember that you won’t become a waste-free school overnight and it will take a while to build up support, particularly in larger schools. For more ideas look at the case study material in Section Three. Remember, start small and build on your successes!

Before you take action, it is important that you have collected the necessary information about the existing waste management system in your school. Only when you have built up a picture of the types and quantities of waste produced and what happens to it, will you then be able to make informed decisions about reducing it.

This is a simple exercise that you can complete within the school although the amount of time you spend on this “waste audit” will depend on the detail and accuracy that you want. A brief audit should provide enough information to decide whether recycling could be a viable option, but as with any planning exercise better information leads to better plans and a better yardstick to judge progress. Once you “know your waste” you can then take practical action!
What’s In the School Bin?

Typical school waste includes the following materials:

**Office Paper**
Clean, white paper used for photocopying, word processing, computers etc.

**Mixed paper**
Includes mixed white, glossy and coloured paper, newsprint and magazines and sometimes paper towels and cardboard.

**Cardboard**
Used for packaging.

**Cans**
Steel or aluminium.

**Plastics**
Includes plastic bottles which can be recycled in some areas, food or sandwich packaging and plastic bags.

**Glass**
Usually glass drinks bottles. Many schools do not allow pupils to bring these onto school premises.

**Aluminium foil**
Should be collected separately from aluminium cans.

**Organic waste**
Food waste, grass clippings, hedge trimmings etc. Can be composted.

**Residual waste – everything else!**
Includes materials which cannot easily be recycled such as some types of packaging, as well as those which can be recycled but are produced in much smaller quantities. For example, toner cartridges, scrap wood and metal and textiles. Other wastes such as chemicals from science classes, herbicides and pesticides and cleaning materials are potentially toxic and need special treatment.

**Typical School Waste**

- **Residual waste** 17%
- **Office paper** 11%
- **Mixed paper** 15%
- **Organic waste** 19%
- **Plastics** 14%
- **Cans** 7%
- **Cardboard** 15%
- **Aluminium foil** 1%
- **Glass** 1%

Source: Waste Watch
The Waste Audit

What is a waste audit and how do I carry one out?

There are two components to carrying out a waste audit. Certainly the most graphic for the pupils is to carry out a waste inventory by physically sorting waste produced in the classroom and around the school. This way you can measure the waste you are looking at fairly accurately. Combine this with a staff questionnaire and you will be able to gather further information about how the school waste management system operates.

What will a waste audit tell me?

The key questions you can expect answered from a waste audit include the following:

- How much waste is produced?
- Where is it coming from within the school?
- What materials are in the waste stream?
- Who collects it from the school and how much does this cost?
- Who is responsible for waste management and how is waste handled in the school?
- How much waste prevention, re-use and recycling is already going on?
- What opportunities are there for waste prevention, re-use and recycling and the cost savings these would incur?

Waste Audit Part A: The Waste Check

Businesses often measure their waste by simply looking at the quantities of materials they purchase. This "front end" approach is difficult for schools because the flows of material are often quite different to just what the school buys. Pupils and staff bring in and remove a large and unquantified amount of material which makes it difficult to draw any links between materials purchased and the waste stream. This is why the best way to find out what is in your waste stream is to physically sort and measure it by carrying out a "Waste Check".

You will need:

- protective overalls
- strong gloves
- plastic rubbish sacks to separate the rubbish
- sticky labels
- scales or spring balances

To carry out a "Waste Check" take the following steps:

1. Appoint your waste monitors

Firstly, you need to decide which parts of the school you wish to look at. Are you going to concentrate on only one classroom, a range of areas or the whole school? Once you have decided, find out who will act as "waste monitors" in these areas. You may decide to use cleaners, caretakers, teaching staff or pupils but make sure that those who normally collect the waste are made aware of, and support your plans. Then request that your waste monitors keep the waste aside.

Have you thought of all parts of the school?

Here’s a checklist:

- Classrooms
- Staffroom
- Administration Office
- Headteachers Office
- Common Room
- Canteen
- Washrooms
- Corridors
- Outside Litter bins
- School Grounds

Have you thought of everybody?

Here’s a checklist:

- Pupils
- Teachers
- Departmental Heads
- Administration and secretarial staff
- Caretakers
- Cleaners
- Canteen Staff
- Grounds Maintenance Staff
2. Keep your school waste for a day

Once you have your waste monitors, inform them that they need to set aside their waste for an appropriate period (e.g. one day), for examination the following day. Remember, the longer the sampling time, the better the accuracy will be. You might like to organise inventories over several days to analyse variability. Waste will also vary at different times of the year, e.g. autumn will produce more leaf waste. Keeping waste dry will ensure consistent weighing across all materials.

Make sure all bags are labelled with their area of origin within the school and the name of the waste monitor. Think about displays mounted for special events (such as parent evenings) and end-of-term clean-outs and the amount of waste these will generate.

3. Classify your waste

With a number of pupils, sort the bags into various materials, e.g. “plastic” or “metals”, (not their use e.g. “sandwich packaging”). The overall aim here is to see which items can be reduced, re-used or recycled.

Items which contain different materials may prove confusing, causing pupils to put them in different categories, so it is important that everyone is quite clear from the start which categories items fall into. One way around this is to provide posters of particular items, e.g. drinks cartons, including information on what items are made of and how the materials are recycled. This will help explain which items can be recycled and which cannot. See Section Four for contacts who can supply this information.

Make a note of any unusual or small items perhaps placing these in a “residual” category. Remember that some items cannot be recycled (e.g. crisp packets and sweet wrappers), these will need to go in the residual category. Make sure appropriate protective clothing (overalls and thick gloves) is worn as waste can be hazardous.

NB Separate waste paper into “office” grade and “mixed”, because these are recycled separately. (If there are large numbers of paper towels, it may be worth separating these into their own category)

4. How much does your waste weigh?

The best way to record the quantities of sorted waste before returning them to the bins is to weigh them. Spring balances are ideal for weighing bags of waste, alternatively there may be scales in the school. If you can’t weigh the waste, then estimate quantities by ranking the most common materials.

Use the “Waste Check” on page 12 to classify and weigh your waste or draw up your own.

Waste Audit Part B: The Questionnaire

Once you have an idea of the types and quantities of waste produced in the school you now need to identify:

- How waste is managed within your school
- How waste is managed when it is leaving your school
- Whether your school is already reducing, re-using or recycling any of its waste or buying recycled products
- Whether your school has any policies to cut down on waste

This information can be obtained easily through a simple questionnaire which you can pass to the waste monitors or others who have responsibility for different parts of the school (see checklist left.) Gathering this information will help identify potential future savings.

Use the following waste audit questionnaire or make your own. Why not get pupils to conduct short interviews with the relevant staff?
Waste Check

Area of school (e.g. classroom) ___________________________ Number of bags collected ___________________________

Name of monitor ___________________________

Position (e.g. pupil, teacher etc.) ___________________________

Start date(s) of Waste Check ___________________________ Finish date(s) ___________________________

Using the table below, list the items you have found, their weights and the percentage this is of the total. Remember to include any small items:

<table>
<thead>
<tr>
<th>Material Type</th>
<th>Weight (kg)</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>office paper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mixed paper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>cardboard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>aluminium cans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>steel cans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>aluminium foil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>plastics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>glass</td>
<td></td>
<td></td>
</tr>
<tr>
<td>organic waste</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Once the waste check is complete, ask the waste monitors if they know of any items which are produced infrequently and may not have been detected (e.g. printer cartridges). List them below:

______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
This questionnaire is part of an important study of the waste produced in [School] to help us find the best ways to reduce, re-use and recycle it. Please take a few minutes to complete the following questions:

**Area of school** (e.g. classrooms, canteen etc.)

**Your name and position**

**How is your waste managed within the school?**

Who is responsible for moving your waste to the school collection point?

Where is the waste stored and how large is the storage area? (how many days waste can normally be stored there?)

**How is the waste stored before collection? please tick**

- bins
- skips
- plastic sacks
- other (please specify)

Are you aware of any health and safety requirements for the handling of your waste? If so, what are these, and for what wastes? (e.g. Care of Substances Hazardous to Health, Duty of Care, Special Waste Regulations)

**How is waste managed when it is leaving the school?**

Who collects your waste from the school?

How often is this waste collected?

Is there a charge for this collection? If so, how much? and how are charges calculated? (per bin, per visit, by weight, by volume, flat rate etc.?)

*Have your waste collection charges changed recently? (they may have increased as a result of the Landfill Tax)*

*Where does your waste go once it leaves the school?*

**Are you already reducing, re-using or recycling your waste?**

Are you aware of anything that you do which prevents the creation of waste? (e.g. do you use notice boards or circulars to give out information instead of giving out individual bulletins, or use electronic mail within the school?)

*continued over*
Are any materials re-used? If so, how much and for what purpose? (e.g. double sided photocopying, scrap paper pads)

Do you operate a recycling scheme and what types and quantities of material does it generate?

**Do you buy recycled products?**

Do you “buy recycled” and if so, which products are they?

If not, why? Can you identify the barriers to buying recycled materials (e.g. cost, quality, didn’t know of any etc.)?

**This final part of the questionnaire concerns the whole school and should be directed at the Headteacher:**

Does the school have any explicit policies or schemes aimed at reducing, re-using or recycling waste? If not, why?

How successful are these policies/schemes? Could you do more?

Was any recycling scheme run in the past but given up? If so why?

Does the school have any policies to favour the purchase of products made with recycled materials? If not, why?

Who is the school’s main supplier? Do they stock recycled?

Do your waste collection contractors have any relevant plans (e.g. price increases, new services?)

Does the local authority have any plans which are relevant to waste management in the school?

Are there any community groups who collect for recycling in your area?

Thank you for your assistance with this questionnaire. The information we obtain will help us assess how to increase waste reduction and recycling in our school.

Please return this form to:
Taking Action – Practical Steps

Once you have carried out your waste audit, you will have a much clearer idea of the waste management system in your school and you can now decide how best to reduce the amount sent for disposal. Indeed, you may have already identified a number of ideas. This section will help you to focus these ideas and show you how to put them into practical effect.

As you will have seen from Section 1, the first option in any good waste management strategy should focus on prevention. This should be followed by options for re-use, recycling and finally disposal.

Waste prevention and re-use

Conscious of cost, few schools use more materials than they need to. However, there is always scope for waste prevention and re-use. Here are a few ideas:

- Circulating copies of documents rather than providing individual copies and encouraging double sided photocopying
- Giving envelopes a second life with re-use labels
- Sharing newspapers and magazines with friends/colleagues
- Using refillable pens instead of disposable ones.
- Replacing disposable cups with washable ones
- Encouraging pupils to cut down on waste produced by packed lunches e.g. using re-sealable bottles instead of cartons or re-usable airtight containers rather than disposable wrappings.
- Some items of “waste” get re-used in school. Paper, card and other materials are reused for art work. Encourage parents to donate waste materials. Using paper printed on one side for scrap or plastic cups and trays for growing plants from seed are other examples.

These are some examples, there are many more. Try and think of your own.

Many areas now have children’s scrapstores, where safe waste products are collected from local business and industry and passed onto schools and playgroups for re-use. Find out if a scrapstore operates in your area by contacting the Waste Watch Wasteline (01 71 248 0242). Similarly, local Furniture Re-use Projects often collect used or broken furniture/electronic equipment for repair and refurbishment before passing them on to those on low income or charities.

Recycling

The materials in your school’s waste stream which are generally the most suitable for recycling are paper, drinks cans and organic materials for composting such as grounds and kitchen waste. Many schools collect cans as these are most likely to generate money for the school. Other materials which may prove worthwhile are cardboard and plastic cups. Materials which are produced in smaller quantities may also be recyclable. You may of course, during your waste audit, have identified other materials not mentioned here.

Thorough market research is essential for the success of any recycling project. You need to know in advance what the potential for recycling is in your area, and you must remember to avoid collecting materials for which you cannot find a market. Some materials are valuable enough to warrant payment e.g. aluminium, some may just save on disposal costs, e.g. paper, but this often depends on the state of material markets which, at least for paper are often volatile. Don’t forget that recycling in schools is firstly providing major environmental and educational benefit. Any savings or financial profit from the scheme is a secondary benefit or bonus!

Setting up a recycling scheme involves making arrangements with a company or your local council to collect reclaimed materials and then organising collection of materials within the school.
Making arrangements for collection

- Your local council Recycling Officer can tell you which companies are active in your area and likely to give the best service. The council may even be able to offer the school a service. Some councils pay a "recycling credit" for the materials you collect. In these areas it may be financially worthwhile for pupils to bring material from home, if no household recycling scheme exists.
- Be sure to ask your current waste collector if they operate a recycling scheme which can be incorporated into your existing collections. If you have a contract and it is due to be renewed in the near future, ask your Recycling Officer if there are any companies offering an integrated waste disposal and recycling service in your area.
- Where there are several companies operating in competition, there may be room to negotiate for free resources, such as bins, and perhaps payment for the reclaimed materials.

Collecting recyclable material within the school

Among the main issues in school recycling schemes are:

- Capital outlay: mainly the cost of additional bins. This is obviously minimal if they are provided. A local business may sponsor these for you (see Section 4)
- Running costs: this will depend largely on how recycling is incorporated into existing operations but remember that cutting down on waste is likely to save the school money
- Space and access for extra bins: space in classrooms etc. for small bins isn’t usually a problem, but larger bins or sacks must be accommodated outside in an area with access for staff and easy access for collecting vehicles. Containers should ideally be vandal-proof.
- Materials available: should the school encourage pupils and parents to bring recyclable material from home? Your local council may be more willing to help you if you decide to do so.
- Allocation of responsibility: Who is going to oversee the scheme? Make sure that everyone involved knows what their roles and responsibilities are.

Paper

Paper is an ideal material to recycle and schools generate large amounts of it. Generally two grades can be collected:

1. Office Grade – this is usually made up of uncontaminated white office and computer paper containing no glued documents or window envelopes. (It can be valuable.) Collections are often made once you have a minimum amount for collection. Place bins in the “hot spots” first – like near photocopiers, in administration offices and the staffroom.

2. Mixed Grade – mixed white and coloured paper, newsprint and magazines. Collected within the school with the option of allowing pupils and parents to bring in paper from home. (Less valuable than office grade)

Cardboard, although often produced in large quantities is a low value product. This, combined with its high volume and low weight, means it does not usually attract commercial recyclers. However, it’s worth asking your Recycling Officer whether cardboard could be collected from your school. If not, try and keep boxes for storage or encourage people to use them at home for this purpose.

Drinks cans

Aluminium and steel drinks cans are worth recycling. The value of scrap aluminium is several hundred pounds per tonne. Environmentally, aluminium recycling saves about 95% of the energy costs of producing it from bauxite. Steel is worth much less but can be separated from the aluminium magnetically and again, saves energy in smelting steel from raw materials. If your school allows cans on site then a recycling scheme could remove between 5 and 10% of the waste stream and potentially provide an income. “Hot spots” for collection are tuck shops and recreation areas.
Plastics

There are many types of plastics in the waste stream and they can prove difficult to separate, which is a barrier to recycling at the moment. If your school uses plastic disposable cups for hot drinks, a scheme called “Save-A-Cup” collects cups for recycling. The main plastics which are currently recycled are those used to make bottles and polystyrene.

Recycling other materials

It may be possible for other materials to be re-used or recycled. Those listed below may be produced at irregular intervals or in small quantities. For example:

- Printer and photocopier toner cartridges (can be refilled and re-used)
- Fluorescent lights
- Computer equipment and electronic products (see More waste saving contacts, Section 4, on how to get hold of refurbished computers)
- Glass, although pupils are often not allowed to bring this to school
- Textiles
- Cooking Oils (see Section 4)

Science chemicals, solvents, pesticides, herbicides (these can be quite toxic and may need special treatment)

For more information on any of the above materials, see Section 4, contact your Recycling Officer or the Waste Watch Wasteline (Tel: 0171 248 0242)

Closing the Loop

“Closing the Loop” refers to the recycling loop and a crucial, but often overlooked, issue in recycling. Collecting materials is all very well, but unless you as a school are actually buying recycled products you’re not really recycling at all. Buying recycled ensures a market for recycled products – if there’s no market, then recycling won’t happen.

Many people still believe that buying recycled means buying inferior. These days, new technologies mean this couldn’t be further from the truth. Many recycled products are high quality and compete well on quality and price. For example, many recycled papers are now as white as non-recycled. Some companies offer re-manufactured toner and inkjet cartridges at considerable cost savings (and quality improvements!). If your school purchases office supplies from an education consortium, contact them for more information.

If you do have to pay more, can these extra costs be absorbed by savings in your disposal costs through recycling or income you receive from any materials or “recycling credits”? For information on recycled products, call the Waste Watch Wasteline.
Getting people motivated

However you decide to tackle your waste problem, unless everyone knows about it, it’s unlikely to succeed and become part of everyday school life. The key is to publicise your efforts and get your message across in a lively, interesting way. Capturing people’s imagination – not easy with something as unappealing as waste? Think again! Rubbish provides an armoury of materials and ideas to stimulate our minds. The more interesting your ideas, the more likely to capture the attention of local media which can help recruit your community to the cause. These ideas may help to get you started:

Stunts are guaranteed to get pupils and staff to sit up and notice. Build a waste sculpture in school reception starting with just one item of rubbish and adding items each day until the sculpture is finished and with that, launch your scheme. Or, build “rubbish mountains” out of shoes, books or spectacles!

Competitions are good ways to get people motivated, local businesses may even donate prizes. Ideas could include: designing posters and logos, writing poems, limericks and essays, designing and decorating recycling bins. Perhaps you could design a leaflet or poster for a new recycling scheme being run by the council?

Draw up a “Waste Charter” for the school containing ten things that your school will do over the next year to cut down on waste. Publicise it throughout the school, to parents and to the local media.

Invite Cycler, the rapping recycled robot to your school. Cycler’s songs and dances involve the whole audience in an entertaining show about waste reduction, re-use and recycling. Local media often attend to take photos. Contact Waste Watch for details of how to book a Cycler visit for your school.

Other ideas:

- Make and sell your own recycled paper Christmas cards
- Organise a “Waste Action Day”
- Organise a “Recycled Fashion Show”
- Raise money for good causes or donate materials to schools overseas (see Section Three for more ideas.)

Keeping it going!

Getting people motivated is one thing, keeping them interested and making sure that things don’t fizzle out is another. This does depend on commitment right from the top of the school i.e. the Headteacher and Governors, the caretaker and preferably all the staff. This will also create continuity when staff and pupils move on.

It’s also important that you measure your success and publicise this. Telling people how much you’ve recycled will really spur people on. Measure your progress and set new targets. Why not co-ordinate your efforts through the creation of a committee made up of staff and pupils?

Don’t forget to tell us! Waste Watch wants to monitor schools’ success in waste reduction and recycling so we can see how well this guide works and what else schools need to start reducing and recycling waste. See Section Four for contacts for more information or call the Waste Watch Wasteline to discuss any of the issues raised in this guide.
Section 3

case studies
1 Gomersal Middle School, West Yorkshire

Kirklees Metropolitan Borough Council works in partnership with Gomersal Middle School in West Yorkshire, developing and supporting a comprehensive recycling scheme. A number of recycling facilities have been provided at the school by the Council, including paper, glass, can and textile recycling banks and an Oxfam book bank. Nearly 10 tonnes of waste are recycled each year through this site.

The school also collect plastic ring holders from multi-packs of food and drink cans, for recycling through the Ring Leader scheme, these are delivered back to the manufacturer for recycling. Aluminium foil is collected for Ravensthorpe Social Education Centre, a centre for adults with learning difficulties, who bale the foil for recycling. The School has developed strong links with a school in Mara, Tanzania and collects used carrier bags, pencils, soap, T-shirts, blankets and film canisters which are exported for reuse and recycling by this school.

Pupils have helped to promote recycling in the community through involvement with launches for several recycling schemes. A mini-enterprise recycling company has been formed, managed by a pupil led management committee. The scheme has been supported by an education programme within the school and the local community.

Many residents and pupils recycle through the school even with the introduction of a household recyclables collection. Both the Council and School hope to see it continue successfully into the next century.

2 Lewis Girl’s School, Caerphilly

Lewis Girls’ School is currently working with the Tidy Britain Group to become an environmentally friendly ‘Eco-School’. A committee of staff and pupils carried out an environmental review of the school and produced an action plan geared towards reducing, re-using and recycling waste. The committee then put their ideas into practice and monitored and evaluated their actions.

Can Recycling – After surveying the number of cans used in school it was decided that a recycling area should be developed, and Caerphilly Borough Council provided a can bank for this. Pupils collect cans in ‘green bins’ around the school before transferring them to the can bank. A poster campaign informed pupils of this facility. Can tops are also collected for the Cancer Research charity.

Paper Recycling – The school works with Severnside Waste Paper and organises a collection of waste office paper around the school in special bins. Severnside collect the paper when 20 bags are ready. Other scrap paper is used to make re-used note pads for pupils. Their own recycled paper has been produced and used to make greetings cards for sale in school. A collection of Christmas cards was arranged for recycling at Boots raising money for tree planting schemes. Stamps are collected for the South Wales Echo guide dog appeal.

Litter – Litter surveys, a poster campaign, litter pick, competitions and more litter bins in school (including two dolphin litter bins purchased through the sale of school dolphin pens) have addressed this issue.
Composting – An area has been created in the school grounds for composting. Leaf litter is collected, a liquid fungus applied and then left to decay. This compost is then used by the school gardener. Worm bins are also used.

Competitions and events to encourage recycling have included:

Using household waste to design and make an Easter bonnet, a collage, or a fashion garment; design of an environmentally friendly logo for a T-shirt; writing a poem based on an environmental theme; writing a limerick on litter; Action Day’ an event to encourage participation from the whole school, including a display and activities area for classes to visit and a litter pick in the afternoon.

3 Filton High School, Bristol

This project grew from an Eco-conference held at Filton College in October 1995 when two pupils were commissioned as ‘Eco-Ambassadors’ by David Bellamy. They set up an Eco-group, including pupils, teachers and non-teaching staff. The group developed a scheme to recycle all waste paper from the school. The Eco-Schools Award Scheme sets out steps to follow moving from environmental awareness to environmental action giving a structure and incentive for the project.

Paper recycling was chosen as the best way to show the whole school that environmental action was achievable. Success helped the school win Green Flag and Eco-School status in December 1996.

Keys to Success

- Set up as part of the waste management system of the school. Site manager and ACE cleaning staff closely involved.
- Saves the school money.
- Advice and support from outside agencies.
- Plenty of time given to communicating the recycling message to staff and students.

The System

1) ALL rooms and offices have a new GREEN waste bin for recycling. 2) ALL WASTE PAPER is placed in new GREEN bins. 3) ALL OTHER waste is placed in the original grey bins.

Costs & Funding

Costs

3 large Euro bins at £280 + VAT £ 840
100 classroom bins at £2.60 + VAT £ 260
Total Cost £1100

A very generous environmental grant of 80% of the set up cost was given by Northavon DC.

Savings

The school now uses two less Euro bins for general waste, costs of emptying them are thus reduced, at £248 bin/pa to have emptied once a week, this is a saving of £496 a year.

Whilst it took effort and commitment to set up and to keep running smoothly, the school feels that this has all been worthwhile because it has raised awareness of environmental issues and showed students that they can take action to improve their environment – SUCCESSFULLY!
4 Landwise, Glasgow

Over the past three years, Landwise, the Glasgow recycling and environmental charity, has implemented a series of education initiatives in Glasgow primary schools through a dedicated environmental education programme. This began with the development of a recycling pack and progressed on to the production of a giant puppet show, culminating in a show at the Edinburgh Fringe in 1994.

1995/6 saw the launch of the Environmental Story Telling Challenge which has continued to run in 1996/7. The Story Telling Challenge gives primary school children the challenge of communicating an environmental message using puppets, props and musical instruments made from waste. The message may be about a specific environmental topic e.g. pollution, an environmental concern to their area or any theme which highlights the importance, fragility or beauty of an environment.

Three categories exist within the Challenge, lower primary, upper primary and special needs. A winner from each category receives £250, all other participants receive certificates and prizes.

A series of six workshops run by Landwise are allocated for each participating school taking part in the Challenge. Workshop topics include:-
- Discussion of environmental issues which lead on to the development of a story.
- Learning about recycling, since puppets, props and musical instruments are made from scrap.
- Using expressive art and language in a fun and interesting way.

The Landwise Education Programme has been supported by sponsorship from UK Waste Management Ltd, Scottish Natural Heritage and Glasgow City Council.

5 Cecil Jones High School, Southend, Essex – Industry Day

The aim of the day was for pupils to develop a product and set up a company, while obtaining:
- an insight into the world of work by interacting with members of the business community
- experience of the value of teamwork
- an understanding of the relevance of waste management and environmental issues

The day used group sessions, guided by an external adviser, in which groups of pupils formulated a business plan and the design of a product using recycled material. The scene was set by discussing waste reduction and recycling issues, and pupils then assigned themselves to various tasks such as corporate identity, advertising, design, manufacturing and finance, generally working out how their company would operate. Advisers encouraged consideration of environmental issues and the effects of their decisions. At the end of the session each group presented their company, its product range and tried to persuade the audience to buy it!

The day was fairly simple and very successful. Keys to this success were: pre-planning, a well timed schedule, the quality of the guidance resources available to both advisers and pupils, bags of interesting (and clean!) rubbish, and the general knowledge pupils already held.

The result was a range of innovative recycled products, made by companies with well thought out business plans, financial systems and marketing strategies, displays of outstanding computer skills, some wild product making in the workshops (maybe the hacksaws weren’t a good idea!) and some very entertaining presentations and persuasive marketing skills!

The day was of great benefit in both environmental and vocational terms. Pupils had previously covered waste issues in lessons and enjoyed talking to people who actually worked on these issues. It prompted thought about employment issues, the different roles which exist within business and the amount of...
underlying issues which need to be sorted out before a product can appear in the shops. It also gave them opportunities to utilise individual skills such as model making, computing, and design, for the benefit of the team as a whole, reinforcing the benefit of team work in practical situations.

6 Ludgvan School, Cornwall

Is it a bird? Is it a plane?...No, it’s another successful recycling initiative!

When it comes to green super-heroes, Cornwall has invented a far more eco-friendly character than the incredible hulk: Captain Compost. Faster than a speeding shovel, more powerful than the smell of fertiliser, this caped recycling crusader is the brain child of the pupils of a small West Cornwall primary school, and has helped to encourage everyone in the county to, quite literally, save the earth by home composting.

Penwith District Council set the challenge, Cornwall County Council’s Recycling Education Officer, Richard Bower, acted as co-ordinator, and the children of Ludgvan County Primary school near Penzance provided the fertile imaginations. This all lead to the creation of an effective and easy-to-understand leaflet introducing the world’s first super hero in wellies, boldly spreading the message that Healthy earth equals Healthy EARTH!

The school project began with the presentation of a new tumbler composter by Penwith District Council. The young scientists of Ludgvan School took temperature readings from their compost heap, comparing differentials, producing bar charts and studying microbiological activity and decay rates by taking samples. All this work, and the production of the leaflet, was very relevant to their Key Stage 2 studies in English, Science, Art, Design, Media and Environment.

The entire guide, from ‘Captain Compost’ concept to the proofing of the leaflet, was the work of the school pupils and their teacher, although the finished product was given a bit of a professional gloss by the County Council’s central design and print team. 10 000 copies of the leaflet are now being distributed within Penwith District Council.

And you can be sure the leaflets were printed on recycled paper. When shredded they mulch down into just the kind of fertiliser that Captain Compost definitely approves of!

7 Chapel Road Special School, Norfolk

Organic Recycling In Breckland (ORB), Breckland District Council’s home composting promotion was launched in 1995 with the help of the Chapel Road Special School, one of the schools acting as community agents for the Council.

The scheme has enabled the school to increase their profile in the local community as well as receiving direct cash benefit. They sold a total of 42 composters, about a fifth of all sales for the Council by community agents. Sales came from parents and from the pupil’s leaflet drop which helped to publicise the ORB scheme locally. This also helped the school forge better links with their own local area.

The composters were delivered directly to the school who made the arrangements for customers to collect or deliver the units. The school also received a free composter and enthusiastic pupils now compost organic waste including lunch scraps. The school received £1.00 commission for each unit sold.
Following ORB’s first successful year, both Chapel Road School and the Council celebrated with an afternoon of games and activities, pupils had even cooked cakes in the shape of worms! The gardening club at the local secondary school joined in the activities, again forging links within other areas of the community.

The ORB scheme continues into its second year offering householders home composters and worm bins at discounted prices. The purpose of this promotion is to encourage people to cut down on the amount of organic waste simply thrown away. Links to education and awareness raising work taking place in local schools help increase the success of the scheme and young peoples’ understanding of environmental issues.

8 West Moors Middle School, Dorset

This 450 pupil school already had a strong recycling and waste awareness culture when it became involved with Dorset County Council’s waste minimisation scheme. Before introducing a paper recycling scheme, the school produced a low 3.6 tonnes of waste per year reflected in the relatively low costs of disposal – £400 pa.

Although the scheme focuses on paper, staff also retrieve plastics, glass and cans and take them to local recycling banks. Paper recycling banks have been sited in the school playground since December 1995, for mixed paper and cardboard. Nine months later, 3.7 tonnes had been collected – this equates to 37 trees! Income generated from paper recycling is used for purchasing books for the Humanities Department which run the scheme.

Paper is re-used before recycling for rough work, cut-offs of card from a local business are used as scrap for teaching, and newspapers are used by the art department. Paper recycling has actually saved the school an estimated £200 pa in waste disposal costs. Savings have also been made through re-use of paper and card before recycling – reducing the amount purchased.

Other initiatives include: text books are repaired where possible to extend their life, then donated to the local community or developing countries. Parents donate material to use in the art department, for example: toilet rolls, yoghurt containers, bottle tops. Waste from building material is also re-used. metal sold to a scrap merchant raised £100-£200; wood was used in the woodwork class or given away as firewood, bricks were kept for re-use in new building work. Grass cuttings are left to improve the turf, waste from pruning etc. is used as mulch or firewood.

The school consolidates its waste saving programme by buying recycled where possible. Toner cartridges for printers are also returned for re-manufacture, purchase of re-manufactured cartridges gives saving of 20-30%.

Re-use and recycling within the school helps promote a strong message of the value of materials and supports curricular activities. Ideas to extend the scheme include introducing a worm bin to compost kitchen waste.

9 Exhall Grange Special School, Warwickshire

Nuneaton and Bedworth Borough Council’s Green Schools Campaign has been running for the past two years to promote, encourage and increase awareness of environmental issues such as recycling and litter control in schools. The Campaign offers support to teaching staff by providing additional information, resources and advice for environmental projects and initiatives.

The Council has worked closely with the staff and pupils of Exhall Grange Special School for several years. A ‘Green Team’ of upper school pupils meet once a month to discuss improvements to the schools environment. They have a particular interest in recycling and support the aluminium can recycling scheme operating in the school.
When this scheme first began, the Green Team identified the problem that the promotional posters did not give partially sighted children a clear, visible message about the importance of sorting the aluminium cans from the steel. The Council’s Recycling Officer suggested that the Green Team encourage their fellow pupils to design their own posters, and offered gift vouchers as prizes for the winners. Canbank Recycling, who collect the cans from the school gave T-shirts and activity books to the winners and badges to all entrants. ‘Ali-Can’ also attended the prize giving to the delight of the children.

Cans are collected by the green team on a weekly basis and stored until Canbank recycling collect them. Revenue from the sale of the cans is being used to purchase plants for the School’s sensory garden.

10 UK Wastesavers Project

This environmental education programme for schools is run by the Groundwork Foundation and funded by UK Waste Management Ltd through a tax rebate on it’s Landfill Tax payments.

UK Wastesavers has run as a pilot to date but during 1997 hopes to involve 10,000 children in 100 schools across the country. The three different types of project are aimed at improving the understanding of waste and it’s importance in modern society. The types of project are:

1) School – Landfill Site Link

Schools use the landfill site as a valuable resource to bring to life aspects of the national curriculum:

- Through visits to the landfill site, children see waste from their school arrive and learn about the technology of constructing and managing the site to protect the environment
- Back at the classroom, they work on exercises such as a waste audit of their school and set up recycling schemes.
- Exercises also relate the waste in the landfill site to that produced at home

2) School – Material Recovery Facility Link

This project emphasises the potential practical uses of products normally thrown away:

- Visits to waste recovery sites which encourage waste re-use and recycling
- Exercises follow similar lines as above, past projects have included working with a local artist to produce a series of sculptures from waste

3) LitterWatch

Encourages children to analyse and be aware of the negative effects of waste in local communities:

- Children are encouraged to identify the litter problem, build awareness of it and undertake related exercises
- The second phase of the project moves to the landfill site as the end destination for litter and exercises follow a similar format to 1).

Through partnerships between schools, Groundwork and landfill sites or recycling plants, a wide range of national curriculum subjects will become real and relevant for pupils.

Contact Waste Watch for further details of the above projects and for more case studies.
Section 4

contacts for further information
General Information

Association for Science Education
College Lane, Hatfield, Hertfordshire, AL10 9AA
Tel: 01707 267411
Fax: 01707 266532
Support service for science education. Wide range of publications and teachers guidance notes including recycling.

British Library Environmental Information Service
25 Southampton Buildings, London. WC2A 1AW
Tel: 0171 412 7955
Fax: 0171 412 7954
Sign-posting service to environmental organisations. Bibliographies on environmental topics.

BBC Educational Publishing
PO Box 234, Wetherby, West Yorkshire LS23 7EU
Tel: 01937 541001
Range of educational materials such as videos and work packs.

Channel 4 Schools
PO Box 100, Warwick CV34 6TZ 01926 433333
Range of educational materials such as videos and work packs.

Council for Environmental Education
University of Reading, London Rd, Reading RG1 5AQ
Tel: 0118 975 6061
Publications and information on environmental education.

For information about European environment issues contact your local library for details of where the nearest Public Information Relay centre is located.

Friends of the Earth
26-28 Underwood Street, London N1 7JG
Tel: 0171 490 1555
Wide range of leaflets, booklets and reports. Contact for publications list and further information.
www.foe.co.uk

Global Action Plan
8 Fulwood Place, Grays Inn, London WC1V 6HG
Tel: 0171 405 5633
Fax: 0171 831 6244
Encourages individuals to take effective environmental action within home, workplace and community. Free information available.

Groundwork National Office,
85/87 Cornwall Street, Birmingham B3 3BY
Tel: 0121 236 8565
Fax: 021 236 7356.
Works for sustained regeneration of the local environment by facilitating partnerships which contribute to the environmental, economic and social well-being of communities.
www.groundwork.org.uk

INCPEN (Industry Council for Packaging and the Environment)
Tel: 0171 409 0949
Fax: 0171 409 0161
Represents all sectors of packaging industry in environmental matters. Range of publications and teaching packs available. www.incpen.org.uk

National Association for Environmental Education UK
Walsall Campus, Wolverhampton University, Gorway Road, Walsall, West Midlands. WS1 3BD
Tel: 01922 631200
Organisation for all those involved with environmental education in schools and colleges. Teacher training in environmental education. Produces the Journal of Environmental Education

Schools Curriculum and Assessment Authority
PO Box 235, Hayes, Middlesex UB3 1HF.
Tel: 0181 561 4499.
Produces a guide to environmental education called “Teaching Environmental Matters through the National Curriculum” £4. www.gov.uk/qcal/

Going for Green
Hotline: 0345 002100
National environmental awareness campaign. Free information pack and CD-Rom. www.gfg.iclnet.co.uk

Tidy Britain Group
Public Affairs Department, The Pier, Wigan, Lancashire, WN3 4EX
Tel: 01942 824620
Fax: 01942 824778
National Agency for litter abatement and improvement of the local environment. Publications and Europe wide information. Runs “Eco-Schools” programme on behalf of Going for Green.

Waste Watch
Gresham House, 24 Holborn Viaduct, London EC1A 2BN.
Tel: Wasteline on 0171 248 0242.
Information and resources on all aspects of waste reduction and recycling. Contact Wasteline for: details of free information sheets including “Educational Resources”, free teaching resource packs “The Dustbin Pack” and “Wise up to Waste”, details of visits from Cycler the robot, information about buying recycled and recycled products, local recycling officer contact details, and details of recycling schemes operating in your area.
www.wastewatch.org.uk

World Resource Foundation,
Heath House, 133 High St, Tonbridge, Kent TN9 1DP
Tel: 01732 368333
Fax: 01732 368337
Warmer Bulletin published quarterly. Factsheets and free information available on a variety of topics. www.wrf.org.uk
Resources for recycling materials

Aluminium Can Recycling Association
5 Gatsby Court, 176 Holliday St, Birmingham B1 1TJ
Local call charge no. 0345 227722
Free aluminium can recycling information including posters.
www.alcan.org.uk

Steel Can Recycling Information Bureau
69 Monmouth St, London WC2H 9DG
Tel: 0171 379 1306
Range of information available including a Teachers’ Pack, educational booklets, primary and secondary school videos for loan, children’s club.
www.scrib.org.uk

Aluminium Foil Recycling Campaign
Bridge House, 53 High Street, Bideford-on-Avon, Warwickshire. B50 4BG
Tel: 01789 490609
Freephone: 0800 626287
Fax: 01789 490391
Promotion of foil recycling schemes. Free information available including posters. Educational packs can be compiled specific to curriculum requirements.

Henry Doubleday Research Association (HDRA)
Ryton Organic Garden, Ryton on Dunsmore, Coventry CV8 3LG Tel: 01203 303517
Wide range of information on composting including leaflets, recycling pack for schools, school teachers membership category, organic gardening posters, activity and information sheets.

Textile Recycling Association
5 High Street, Boxworth, Cambridgeshire CB3 8LY
Tel: 01954 268000
Free educational booklet available. Provide details of textile recycling merchants.
Save a Cup Recycling Co. Ltd
Suite 2, Bridge House, Bridge Street,
High Wycombe, Buckinghamshire HP11 2EL
Tel: 01494 510167
Free collection and recycling service for polystyrene vending cups. Free information available.

Ring Leader Scheme
ITW-Hi-Cone, Cookham Road, Bracknell,
Berkshire RG12 1RB
Tel: 01344 860166
National recycling scheme to encourage children to collect plastic ring carriers (used to join 4 or 6 drinks cans together) and send them back for recycling.

Pulp and Paper Information Centre
Papermakers House, Rivenhall Road,
Westlea, Swindon, Wiltshire SN5 7BE
Tel: 01793 887468

Contact Wasteline for details of paper recycling collections operating in your area.

British Glass Manufacturers Confederation
Northumberland Road, Sheffield S10 2UA
Tel: 0114 268 6201
Range of information including film, video, balloons and badges, junior schools play, information pack including a poster and leaflets. www.britglass.co.uk

Contact your local recycling officer for details of glass recycling merchants in your area.

If you have school catering facilities, it may be possible to have used cooking oil collected for recycling. Contact the Affiliated Cooking Oil Reclaimers Nationwide on 01703 339292.

Contact Wasteline on 0171 248 0242 for details of companies recycling toner cartridges from printers and photocopiers.

Making local contacts

Many local authority recycling officers work with schools to promote recycling issues by producing educational materials or providing bins and organising collections of recyclables from schools. Call Wasteline on 0171 248 0242 for contact details for your area.

Make contact with other schools in the area and find out what they are doing and if there are opportunities for working together or learning from each others experiences.
Companies are encouraged to support their local community but often do not have the time and resources to actively seek involvement. If your school can present an attractive idea and the ways the company could support it or become involved it might be favourably received, contact your local Chamber of Commerce for local business contacts. (Look for their address in Yellow Pages).

Get as much support as possible, publicise your ideas and schemes to the school governors and parents and let them know if you are looking for additional help or funding.

Publicise your school and its recycling activities using local radio and newspapers. Involve the pupils in this.

Find out what community groups are operating recycling projects in your area and see if you can arrange a visit for a class to see a recycling project in action. Contact Wasteline on 0171 248 0242 or the Community Recycling Network on 0117 942 0142.

More waste saving contacts

Ensure the school library stocks a range of relevant books to support the work the school is doing.

One of the important actions to promote is buying recycled, contact Wasteline 0171 248 0242 for details of recycled products available. To encourage the school to use recycled paper contact EPIC, the Environmental Produce Information Centre on 01372 802280. This is a free service listing details of recycled papers to match the school’s requirements.

Is there a scrap store in your area? Scrap stores collect material donated from companies which could be reused for art, play or learning purposes. They then pass these materials on to local schools and community projects at low cost. Contact Wasteline for details.

Is your school looking to upgrade its computers? There are now a number of community organisations around the country who refurbish computers donated by companies and then pass them on to schools and charities. Contact Bytes Twice on 0171 248 0242 to see if there is a scheme in your area.

Does your school have an annual fair or similar event? Network Recycling provide a specialist recycling services for events and educational displays. Contact them on 0117 942 2271.

Additional environmental information

Energy Advice Centres
The Local Energy Advice Centre network has been established by the Energy Savings Trust. The centres provide free impartial and independent advice on how to save energy and reduce fuel bills. Advice can be obtained on Freephone: 0800 512012

Advice and information about conserving water is available from your local water company – look in the Yellow Pages for contact details.

Learning Through Landscapes
Third Floor, Southside Offices, The Law Courts, Winchester, Hampshire SO23 9DL
Tel: 01962 846258
Fax: 01962 869099

Works to improve school landscapes for educational purposes. Provides advice on the development and importance of school grounds.

British Trust for Conservation Volunteers
36 St Mary’s Street, Wallingford, Oxfordshire OX10 0EU
Tel: 01491 839766

BTCV is the UK’s largest practical conservation charity and each year supports the activities of volunteers taking positive steps to improve their environment. BTCV also offers advice and support to over 2000 communities and schools through its groups and school membership service.

Sustrans
35 King Street, Bristol BS1 4DZ
Tel: 0117 9268893

Plans builds and maintains safe no-motor routes for sustainable transport.

Health and Safety Executive
Rose Court, 2 Southwark Bridge, London SE1 9HS
Tel: 0171 717 6000
www.open.gov.uk\hse\hsehom.htm

The Wildlife Trusts
The Green, Witham Park, Waterside South, Lincoln LN5 7JR
Tel: 01522 544400

Exists to protect threatened wildlife via a national network of Trusts. Free educational materials and a junior branch.
Biogas
the mixture of carbon dioxide and methane produced from the breakdown of organic materials. In a controlled situation this gas can be collected and burned to produce energy.

Carbon Dioxide
gas produced from the breakdown of organic materials, contributing to Global Warming.

Controlled Waste
waste arising from domestic, commercial and industrial sources

Environmental Bodies
not-for-profit organisations set up to receive funds to promote sustainable waste management from the proceeds of the Landfill Tax.

Global Warming
the gradual increase in the temperature of the earth’s atmosphere as a result of the build up of greenhouse gases such as methane and carbon dioxide in the atmosphere. These gases occur naturally but are increasing due to human activities such as burning fossil fuels.

Incineration
the burning of the combustible components of household waste

Landfill Tax
A tax on materials sent for landfill on the cost of landfill measured in £ per tonne.

Landfill
The controlled, permanent burial of solid waste in the ground.

Methane
gas produced from the breakdown of organic materials, contributing to Global Warming.

Recycling Credits
A means to pass on the savings in waste disposal and collection costs a local authority makes when household waste is being recycled by a recycling organisation.

Recycling
the reprocessing of collected materials into other materials or products

Sustainable Development
development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Waste Minimisation
taking action to ensure that as little waste as possible is produced in the first place. Also known as waste prevention or waste reduction.
The Waste Watch Education Programme

“reCYCLERbility”
...coming to a school near you!

Waste Watch’s national education programme includes the following free resources:

**Cycler the recycled robot!**
Cycler’s one hour free show is aimed at infant and junior schools. The presentation by one of Waste Watch’s Schools Outreach Workers includes this high tech robot singing, dancing and talking to children about reducing, re-using and recycling waste. Children receive an activity book to follow the performance. For more information or to book this captivating robot’s visit to your school, call the Waste Watch Wasteline – 0171 248 0242

**The Dustbin Pack**
A teaching resource pack aimed at children between seven and eleven years old, the Dustbin Pack includes children’s work cards, posters, teaching notes, a Waste Game and information on setting up a recycling scheme.

**Wise up to Waste**
An exciting education pack for secondary schools, Wise up to Waste provides an innovative resource base for students to apply their data analysis, reasoning and communicating skills to a real world problem. It includes activities which can be co-ordinated across the curriculum or used individually and a range of case studies, allowing students to discover and debate sustainable solutions to a real world wide problem.

A series of free information sheets including:

**Educational Resources**
An extensive listing of resources available to those teaching about waste issues, the information sheet gives details of how to obtain the resources and prices, where applicable.

For more information on any of the above, please call the Waste Watch Wasteline on 0171 248 0242 or send a stamped addressed envelope (one first class stamp), requesting information, to:

Educational Resources
Waste Watch
Gresham House
24 Holborn Viaduct
London EC1A 2BN
Waste Watch operates the

WASTE WATCH WASTELINE

A free information service, answering both telephone and written enquiries on all aspects of reducing, re-using and recycling waste.

Ring the Waste Watch Wasteline for information about:

- our range of information sheets covering a variety of issues on waste and recycling
- tips and advice on reducing, re-using and recycling different materials
- additional good practice case studies of school recycling schemes
- contacts for environmental organisations and trade associations
- community re-use and recycling projects in your area
- local authority recycling services and facilities
- products made from recycled materials
- details of training events and courses

0171 248 0242

Work at Waste at School is sponsored by:

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